ORIGINAL

Cytec Industries Inc.

Fortier Manufacturing Complex

Waggaman, Louisiana
Jefferson Parish

EPA I.D. No. LAD 008175390

Hazardous Waste
Permit Application

Volume I

June, 1998

BOUND DOCUMENT
1-7-5

CYTEC

CYTEC INDUSTRIES INC.
Fortier Plant
10800 River Road
Westwego, LA 70094
Tel: (504) 431-9511

Hand Delivered
Verification of Receipt Requested

RECEIVED
JUN 01 1998
DEPT OF ENVIRONMENTAL QUALITY
HAZARDOUS WASTE DIVISION
PERMIT SECTION

June 1, 1998

James H. Brent, Ph.D.
Administrator
LDEQ/HWD-Permit Section
Post Office Box 82178
Baton Rouge, LA 70884-2178

Re: Cytec Industries Inc.- Fortier Manufacturing Complex,
Waggaman, Jefferson Parish, Louisiana
EPA I.D. No. LAD 008175390
Hazardous Waste Permit Renewal Application

Dear Dr. Brent:

Cytec Industries Inc. (Cytec) is hereby submitting a new hazardous waste permit application in compliance with Permit Provision II.E.2. and Louisiana Administrative Code (LAC) 33:V.303.N., which states:

> *"Reapplications. Any TSD facility with an effective permit shall submit a new permit application at least 180 days before the expiration date of the effective permit, unless permission for later filing is granted by the administrative authority. (The administrative authority shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)"*

Cytec's existing hazardous waste permit, LAD 008175390-OP-1, became effective on April 24, 1995 and expires on June 23, 1998.

Cytec submitted a request for a later filing date of March 31, 1998 to LDEQ on November 24, 1997. LDEQ approved the request by letter dated December 16, 1997. Cytec submitted a second request for a later filing date to LDEQ on March 16, 1998. LDEQ approved the request and stipulated a later filing date of June 1, 1998 by letter dated March 27, 1998. A copy of this correspondence is included in Appendix A.

The hazardous waste permit application consists of seven (7) volumes. A Summary of Contents and Table of Contents are located in the front of each volume for easy reference. The text is prepared with the applicable regulations shown in normal type face followed by Cytec's responses in bold type face.

Responses and exhibits are numbered sequentially according to the technical standards. In compliance with LAC 33:V.517., this permit application describes how Fortier will comply with each of the sections of LAC 33:V. Chapters 15 - 37 and 41. Information required in the formal permit application is being submitted to the administrative authority and signed in accordance with the requirements in LAC 33:V.509. This information is being submitted using the same numbering system and in the same order used in these regulations. If a section does not apply, a statement is made in the permit application that the section does not apply and justification is provided as to why the section does not apply.

Proposed Lab Sample Collection Tank (101-52)

Cytec is proposing to add a 40 gallon Lab Sample Collection Tank to be located in the MMA Plant. The installation of this small tank and pump system will transfer laboratory waste to the existing Miscellaneous effluent (MET) system for disposal via deep well injection, thus minimizing the use of containers and the potential for spills or personnel exposure to hazardous chemicals. Cytec has provided the required information in the attached hazardous waste permit application for LDEQ review in order to add this tank to the list of permitted units. In order to expedite putting the tank into service, Cytec submitted a request to LDEQ in accordance with LAC 33:V.1905.H. on January 5, 1998. This will allow LDEQ to approve the addition of this tank as a less than 90 day unit and allow Cytec to place the tank into service, while LDEQ is reviewing the hazardous waste permit application and the addition of this tank as a permitted unit.

Final Resolution of Settlement Agreement Dated February 1, 1996

A Settlement Agreement was reached with LDEQ and signed by J. Dale Givens on February 1, 1996. Under Section IV.C. of the Settlement Agreement, Cytec was required to notify LDEQ at least 60 days in advance of the use of Mobile Treatment Units (MTU's) for the clean out of the RCRA tanks and request a Temporary Authorization until such time as the use of the MTU's becomes permitted by LDEQ or a determination is made by LDEQ that no permitting is required for such treatment. LDEQ issued a letter dated April 24, 1998 stating that no permit was required for such treatment. A copy of the LDEQ letter dated April 24, 1998 and Settlement Agreement are included in Appendix B.

Cytec requests that LDEQ include specific language in the permit provisions which clarifies that Cytec is authorized to conduct storage and/or treatment in tanks and / or containers for a period of less than 90 days in accordance with LAC 33:V.1109.E. This will allow Cytec to perform the hazardous waste tank cleanouts to obtain thickness mesurements and to visually assess the internal and external integrity of the tanks in accordance with LAC 33:V.1509, 1909 and 1911.

CYTEC

In general accordance with LAC 33:V.303.O. and LDEQ letter regarding "Submission of Correspondence and Bound Material" dated October 31, 1996, a total of fifteen (15) copies of the Part I/Part A hazardous waste permit application and five (5) copies of the Part II / Part B hazardous waste permit application in bound form are being submitted for your review.

In accordance with LDEQ letter regarding "Submission of Permit Related Bound Materials" dated December 10, 1993, all submitted material electronically available has been included on a 3.5" computer diskette in Miscrosoft Word format. The diskette is located in Volume I of the each copy.

If you have any questions or require additional information, please contact Ms. Stacy M. Foret at (504)431-6479 or Ms. Anita Junker at (504)431-6556.

I certify under penalty of the law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

This submission and any past or future communications or discussions regarding this matter are not intended to admit any fact of liability or waive or affect any rights.

Very truly yours,

Jaswant S. Gill
Director - Manufacturing and Building Blocks and Plant Manager

cc Eric Garner, LDEQ HW Permits Division, Baton Rouge, LA via Fax 504-765-0617 (w/o attachment)

Cytec Industries Inc.

Fortier Manufacturing Complex

Waggaman, Louisiana
Jefferson Parish

EPA I.D. No. LAD 008175390

Hazardous Waste
Permit Application

Volume I

June, 1998

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Transmittal Letter

Computer Diskette

IT Response

"IT" Response

1. Have the potential and real adverse environmental effects of the proposed facility been avoided to the maximum extent possible?

Response: Yes. The Fortier Manufacturing Complex has been in operation for the past 42 years in conformance with applicable state and federal regulations. The hazardous waste is handled in a closed system comprised primarily of tanks and filters, which are subject to the design, secondary containment, and inspection standards of applicable state and federal regulations, thereby minimizing the real and potential adverse effects to the adjacent soil and groundwater. Additionally, Cytec periodically tests the metal thickness of the hazardous waste tank system components. Cytec has an ongoing commitment to reduce the volume and toxicity of the hazardous waste generated by using such methods as new equipment installation, source reduction, and reuse when appropriate and applicable. Cytec's extensive waste reduction efforts demonstrate a continuing commitment to further reduce potential and real adverse environmental impacts of the hazardous waste management system.

The Fortier Plant operates all of its waste management facilities to avoid adverse environmental effects to the maximum extent possible, by: (1) minimizing waste generation (examples include recovering acrylonitrile from laboratory wastes; purifying and selling coproduct hydrogen cyanide; recycling a portion of unreacted acid from the methyl methacrylate process to the acrylonitrile process; conversion of a sulfuric acid plant to an acid regeneration facility that is capable of recovering up to 95% of used acid for reuse; and recovery of acetonitrile for sale); (2) assuring compliance with existing and anticipated regulations (e.g., by daily inspections, maintenance and monitoring of operations, controlled design of tanks and processes); (3) instituting controls (e.g., pH adjustment in certain cyanide-handling areas to eliminate any threat of free cyanide releases; and (4) avoiding, to the extent possible, releases, leaks, potentially contaminated runoff, and spills of hazardous material (e.g., through a site stormwater runoff interceptor system), as demonstrated through the facility's Waste Minimization Plan. These methods collectively assure that adverse environmental effects will be avoided to the maximum extent possible.

2. Does a cost benefit analysis of the environmental impact costs balanced against the social and economic benefits of the proposed facility demonstrate the latter out weighs the former?

Response: Yes. The social and economic benefits of the Fortier Plant outweigh the environmental impact cost associated with the hazardous waste management facilitates. The social and economic benefits from the operation of the Fortier Plant to the local community are extensive. At the same time, the absence of adverse environmental impacts during the past 42 years of operation indicate that the benefits clearly outweigh any adverse impacts associated with their operation. Cytec employs approximately 800

citizens. The economic and social benefits of the Fortier Plant operation include the purchase of supplies and services from the local community, thereby supporting many jobs; and production of desirable commodities used to manufacture consumer products at minimal prices due to site access to shipping modes and raw material manufacturers and product users; and state and local economic support via taxes from products sold and products and services bought; and associated employee spending. These benefits to society would not be possible without the operation of the Fortier Plant. Environmental impact costs, on the other hand, have been minimized by the Fortier Plant through the minimization of waste generation, regulatory compliance, implementation of controls, and the avoidance of environmental releases, as discussed in question (1) above.

3. Are there alternative projects which would offer more protection to the environment than the proposed facility without unduly curtailing non-environmental benefits?

Response: No. There are no alternative projects which would offer more protection to the environment than the existing facility without unduly curtailing non-environmental benefits. Furthermore, the hazardous waste management facilities at the Fortier Plant have undergone various modifications, improvements, and upgrades over the past 42 years of operation to achieve increasing levels of environmental protection. Cytec has demonstrated an ongoing commitment for maintaining state-of-the-art facilities that minimize threats to human health and the environment. Cytec will continue to reevaluate and update Fortier's waste management facilities in response to new regulatory requirements and in accordance with Cytec's commitment to environmental protection. Cytec continues to investigate alternative technologies in an effort to reduce volume and toxicity of wastes and provide increasing environmental benefits.

4. Are there alternative sites which would offer more protection to the environment than the proposed facility site without unduly curtailing non-environmental benefits?

Response: No. The hazardous waste management facilities located at the Fortier Plant are located in a secure area within the production complex. To the best of our knowledge and belief, there are no alternative sites which would offer more protection to the environment without unduly curtailing non-environmental benefits. Even if such facilities were available offsite, the transportation of large quantities of waste could increase the potential for environmental impacts. In addition, the Fortier Plant is considered to be in an area affording minimal environmental harm. It is located in an industrially-zoned area with few nearby residents and no known sensitive environmental habitats. Waste disposal landfills operate adjacent to the plant because of this ideal location. Regardless of non-environmental disadvantages of eliminating the present TSD facilities (such as costs implemented during closure, layoffs of underutilized workers, rendering the land unusable, etc.), the real and potential environmental impacts would make alternative sites unsuitable.

5. Are there mitigating measures which would offer more protection to the environment

than the facility as proposed without unduly curtailing non-environmental benefits?

Response: No. Cytec has continually attempted to use all feasible mitigating measures to eliminate adverse environmental and health effects. Currently, there does not appear to be any additional mitigating measures that would offer more protection to the environment without unduly curtailing non-environmental benefits. However, Cytec is continually studying potential measures to minimize and eliminate environmental and health risks without forcing undue social and economic hardships on the plant and affected workers and consumers. Any mitigating measures that offer more protection to the environment without unduly curtailing non-environmental benefits will be implemented as have been in the past.

LAC 33:V.513

Certification

CYTEC INDUSTRIES INC. - FORTIER MANUFACTURING COMPLEX
EPA I.D. NO. LAD 008 175 390
HAZARDOUS WASTE PERMIT APPLICATION

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Jaswant S. Gill
Director - Manufacturing, Building Blocks and Plant Manager

8/28/98
Date

LAC 33:V.105

Form HW-1

LOUISIANA NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY
HAZARDOUS WASTE DIVISION
P.O. BOX 82178 BATON ROUGE, LA 70884-2178

INSTALLATION'S EPA ID NUMBER: LAD008175390

NOTIFICATION TYPE: FIRST ○ SUBSEQUENT ⊗

NAME OF INSTALLATION (include company and specific site name): CYTEC INDUSTRIES INC - FORTIER

INSTALLATION LOCATION ADDRESS (physical address, not p.o. box, route number, or hwy number)

STREET: 10800 RIVER ROAD

CITY OR TOWN: WAGGAMAN — STATE: LA — ZIP CODE: 70094

PARISH NAME: JEFFERSON — PARISH CODE: 051 — SIC CODE: 2869 — LATITUDE: 295750N — LONGITUDE: 901628W

INSTALLATION CONTACT (person to be contacted regarding waste activities at site)

LAST NAME: JUNKER — FIRST NAME: ANITA — JOB TITLE: ENV TEAM LDR — PHONE NUMBER: (504) 431-6556 (Area Code)

INSTALLATION MAILING ADDRESS

STREET, P.O. BOX OR ROUTE NUMBER: 10800 RIVER ROAD

CITY OR TOWN: WESTWEGO — STATE: LA — ZIP CODE: 70094

INSTALLATION OWNER (legal owner of installation)

NAME: CYTEC INDUSTRIES INC — PHONE NUMBER: (201) 357-3100 (Area Code)

STREET, P.O. BOX OR ROUTE NUMBER: FIVE GARRET MOUNTAIN PLAZA

CITY OR TOWN: WEST PATERSON — STATE: NJ — ZIP CODE: 07424

CHANGE OF OWNER INDICATOR: YES ○ NO ⊗ — Date Changed (Month, Day, Year): NA

Property Owner (if different from installation owner): NA

INSTALLATION CLASSIFICATION (ALL THREE CATEGORIES MUST BE COMPLETED)

TYPES: F=Federal S=State I=Indian P=Private C=Parish M=Municipal O=Other

Owner Type: P — Operator Type: P — Property Type: P

For Official Use Only
CHECK NUMBER: _____

A. TYPE OF HAZARDOUS WASTE ACTIVITY

1. GENERATOR
   - (X) a. greater than 1000 kg/mo (2,200 lbs)
   - ( ) b. 100 to 1000 kg/mo (220 - 2,200 lbs)
   - ( ) c. less than 100 kg/mo (220 lbs)

   - (X) on-site reuse/recycle operation for own waste only
   - ( ) on-site reuse/recycle operation for commercial purposes

   - (X) less than 90 day storage in tanks

(X) 2. LABORATORY OR TESTING FACILITY FOR TREATABILITY STUDIES

3. TRANSPORTER (Indicate Mode Below)
   - ( ) a. For own waste only
   - ( ) b. For commercial purposes

   MODE OF TRANSPORTATION (transporters only)
   ( ) highway ( ) rail ( ) air ( ) water

   TRANSFER FACILITY STATUS (month, day, year)
   (Transporter status must be indicated above)

   Requested_____
   Received_____

4. TREATER, STORER, DISPOSER
   (X) Permitted ( ) Interim Status ( ) Proposed

(X) 5. UNDERGROUND INJECTION CONTROL

B. HAZARDOUS WASTE FUEL ACTIVITY

( ) 1. GENERATOR MARKETING TO BURNER
( ) 2. OTHER MARKETER
( ) 3. BOILER AND/OR INDUSTRIAL FURNACE
   - ( ) a. smelter deferral
   - ( ) b. small quantity exemption

   Indicate Type of Combustion Device(s)
   ( ) Utility Boiler ( ) Industrial Boiler ( ) Industrial Furnace

C. USED OIL RECYCLING ACTIVITIES

1. MARKETER
   - ( ) Marketer Directs Shipment of Used Oil to Burner
   - ( ) Marketer Who First Claims the Used Oil Meets the Specifications

( ) 2. USED OIL FUEL BURNER
   Indicate Type of Combustion Device(s)
   ( ) Utility Boiler ( ) Industrial Boiler ( ) Industrial Furnace

( ) 3. USED OIL TRANSPORTER -> Indicate Type of Activity
   - ( ) a. transport only
   - ( ) b. transport and transfer facility
   - ( ) c. transfer facility only

   TRANSFER FACILITY STATUS (month, day, year)
   (Transporter status must be indicated above)

   Requested_____
   Received_____

( ) 4. USED OIL PROCESSOR/RE-REFINER
   Indicate Type of Activity
   - ( ) a. process only
   - ( ) b. process and re-refine
   - ( ) c. re-refine only

( ) 5. USED OIL BROKER (but not marketer)

DESCRIPTION OF REGULATED WASTES See attached Continuation Sheet.

A. Characteristic Hazardous Wastes (see 40 CFR 261.20–24 and LAC 33:V.4903 B,C,D,E)

(X) ignitable (D001) (X) corrosive (D002) (X) reactive (D003)

(X) TC toxic (D004-D043) D004* D005* D006* D007

B. Listed Hazardous Wastes (see 40 CFR 261.31–33 and LAC 33:V.4901 B,C,E,F)

F001	F002	F003	F004*	F005	F027*
K011	K013	P063	P069	U002	U003
U007	U008	U009	U019	U154	U162

CERTIFICATION

I Certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE	NAME AND TITLE (PRINT OR TYPE)	DATE SIGNED
X	Jaswant S. Gill Director - Manufacturing, Building Blocks and Plant Manager	9/28/98

HW-1, 8700-12 (R 01/94)

LOUISIANA NOTIFICATION OF HAZARDOUS WASTE ACTIVITY (HW-1; R 01/94)

DESCRIPTION OF REGULATED WASTES
A. Characteristic Hazardous Waste (continued)

D008	D009*	D010*	D011*	D012*	D013*	D014*	D016*	D017*	D018
D019*	D020*	D021*	D022*	D023*	D024*	D025*	D026*	D027*	D028*
D029*	D030*	D031*	D032*	D033*	D034*	D035	D036*	D037*	D038
D039*	D040*	D042*	D043						

Note: Waste codes D001, D002, D003, D007, D008, D018, D035, D038, and D043 are disposed of on-site and/or off-site. All other "D-Listed" waste codes are recycled or disposed of off-site.

B. Listed Hazardous Wastes (continued)

P001*	P002*	P003*	P004*	P005*	P006*	P007*	P008*	P009*	P010*
P011*	P012*	P013*	P014*	P015*	P016*	P017*	P018*	P020*	P021*
P022*	P023*	P024*	P026*	P027*	P028*	P029*	P030	P031*	P033*
P034*	P036*	P037*	P038*	P039*	P040*	P041*	P042*	P043*	P044*
P045*	P046*	P047*	P048*	P049*	P050*	P051*	P054*	P056*	P057*
P058*	P059*	P060*	P062*	P064*	P065*	P066*	P067*	P068*	P070*
P071*	P072*	P073*	P074*	P075*	P076*	P077*	P078*	P081*	P082*
P084*	P085*	P087*	P088*	P089*	P092*	P093*	P094*	P095*	P096*
P097*	P098*	P099*	P101*	P102*	P103*	P104*	P105*	P106*	P108*
P109*	P110*	P111*	P112*	P113*	P114*	P115*	P116*	P118*	P119*
P120*	P121*	P122*	P123*	U001*	U004*	U005*	U006*	U010*	U011*
U012*	U014*	U015*	U016*	U017*	U018*	U019*	U020*	U021*	U022*
U023*	U024*	U025*	U026*	U027*	U028*	U029*	U030*	U031*	U032*
U033*	U034*	U035*	U036*	U037*	U038*	U039*	U041*	U042*	U043*
U044*	U045*	U046*	U047*	U048*	U049*	U050*	U051*	U052*	U053*
U055*	U056*	U057*	U058*	U059*	U060*	U061*	U062*	U063*	U064*
U066*	U067*	U068*	U069*	U070*	U071*	U072*	U073*	U074*	U075*
U076*	U077*	U078*	U079*	U080*	U081*	U082*	U083*	U084*	U085*
U086*	U087*	U088*	U089*	U090*	U091*	U093*	U094*	U095*	U096*
U097*	U098*	U099*	U101*	U102*	U103*	U105*	U106*	U107*	U108*
U109*	U110*	U111*	U112*	U113*	U114*	U115*	U116*	U117*	U118*
U119*	U120*	U121*	U122*	U123*	U124*	U125*	U126*	U127*	U128*
U129*	U130*	U131*	U132*	U133*	U134*	U135*	U136*	U137*	U138*
U140*	U141*	U142*	U143*	U144*	U145*	U146*	U147*	U148*	U149*
U150*	U151*	U152*	U153*	U155*	U156*	U157*	U158*	U159*	U160*
U161*	U163*	U164*	U165*	U166*	U167*	U168*	U169*	U170*	U171*
U172*	U173*	U174*	U176*	U177*	U178*	U179*	U180*	U181*	U182*
U183*	U184*	U185*	U186*	U187*	U188*	U189*	U190*	U191*	U192*
U193*	U194*	U196*	U197*	U200*	U201*	U202*	U203*	U204*	U205*
U206*	U207*	U208*	U209*	U210*	U211*	U213*	U214*	U215*	U216*
U217*	U218*	U219*	U220	U221*	U222*	U223*	U225*	U226*	U227*
U228*	U234*	U235*	U236*	U237*	U238*	U239*	U240*	U243*	U244*
U246*	U247*	U248*	U249*	U328*	U353*	U359*			

Note: Listed hazardous wastes, P063 and U092, are no longer routinely generated as discarded commercial chemical products, but under LAC 33:V.109 are included in characterizations for Deep Well Back Wash residues sent off-site for disposal. Additionally, there is the potential to generate these wastes in lab packs or small quantities.

*These wastes have not routinely, if ever, been generated at Fortier. However, these waste codes may identify wastes that are generated in lab packs or other small quantities. These waste codes have been included in this notification to allow storage prior to disposal. These wastes will only be disposed of or recycled off-site.

LAC 33:V.515

Part I/Part A

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0034 Expires 10/31/99
GSA No 0248-EPA-OT

For EPA Regional Use Only

Date Received
Month Day Year

United States Environmental Protection Agency
Washington, DC 20460

Hazardous Waste Permit Application Part A

(Read the Instructions before starting)

I. Installation's EPA ID Number *(Mark 'X' in the appropriate box)*

[ ] A. First Part A Submission

[x] B. Part A Amendment #_____

C. Installation's EPA ID Number: LAD008175390

D. Secondary ID Number *(If applicable)*: NA

II. Name of Facility

Cytec Industries Inc

III. Facility Location *(Physical address not P.O. Box or Route Number)*

A. Street: 10800 River Road

Street *(Continued)*:

City or Town: Waggaman

State: LA

Zip Code: 70094-2099

County Code *(If known)*: 051

County Name: Jefferson Parish

B. Land Type (Enter code): P

C. Geographic Location (Approx. mid-point of process area)
LATITUDE (Degrees, minutes, & seconds): 295700
LONGITUDE (Degrees, minutes & seconds): 090160028

D. Facility Existence Date
Month Day Year: 05 20 1952

IV. Facility Mailing Address

Street or P.O. Box: 10800 River Road

City or Town: Westwego

State: LA

Zip Code: 70094-2099

V. Facility Contact *(Person to be contacted regarding waste activities at facility)*

Name *(Last)*: Junker

(First): Anita

Job Title: Env Services Le

Phone Number *(Area Code and Number)*: 504-431-6556

VI. Facility Contact Address *(See Instructions)*

A. Contact Address
Location [x] Mailing [ ] Other [ ]

B. Street or P.O. Box:

City or Town:

State:

Zip Code:

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0034 Expires 10/31/99
GSA No 0248-EPA-OT

EPA I.D. Number *(Enter from page 1)*	Secondary ID Number *(Enter from page 1)*
LAD008175390	NA

VII. Operator Information *(See Instructions)*

Name of Operator			
Cytec Industries Inc			
Street or P.O. Box			
Five Garret Mountain Plaza			
City or Town	**State**	**ZIP Code**	
West Paterson	NJ	07424 —	

Phone Number *(Area Code and Number)*	B. Operator Type	C. Change of Operator Indicator	Date Changed Month Day Year
201 — 357 — 3100	P	Yes [ ] No [X]	

VIII. Facility Owner *(See Instructions)*

A. Name of Facility's Legal Owner			
Cytec Industries Inc			
Street or P.O. Box			
Five Garret Mountain Plaza			
City or Town	**State**	**ZIP Code**	
West Paterson	NJ	07424 —	

Phone Number *(Area Code and Number)*	B. Owner Type	C. Change of Owner Indicator	Date Changed Month Day Year
201 — 357 — 3100	P	Yes [ ] No [X]	

IX. SIC Codes *(4-digit, in order of significance)*

Primary		Secondary	
2869	*(Description)* Acrylonitrile	2819	*(Description)* Sulfuric Acid
Secondary		**Secondary**	
2873	*(Description)* Ammonia	2869	*(Description)* Methanol

X. Other Environmental Permits *(See Instructions)*

A. Permit Type *(Enter code)*	B. Permit Number	C. Description
N	LA0004367	LDEQ Water Quality LPDES/NPDES
P	(See Page 2A)	Air Emission Permits (See Page 2A)
R	LAD008175390	RCRA Hazardous Waste Operating Permit
R	LAD008175390	Draft RCRA Post-Closure Permit
U	93-07WD	UIC Permit (See Page 2B)
E	D-051-0807 (P-001)	LDEQ Solid Waste (Closed Sanitary Landfill)
E	(See Page 2B)	Groundwater Certifications (See Page 2B)

AIR EMISSIONS PERMITS/VARIANCES/AUTHORIZATIONS

Permit #/Variance/Authorization	Date Issued	Applicable Program	Units and/or Sources Covered
LA1		PSD	Sulfuric Acid Plant
1983	3/11/88	SIP/NSPS	Aminonitrile Unit
Change of Tank Service	9/26/90	SIP	Use Parrafin Oil Tank for Diesel
2097	9/30/91	SIP	Acetonitrile Recovery
PSD-LA-576/2195	6/11/93	PSD/NSPS/Air Toxics	AN Modifications
Adm.Chg. PSD-LA-574/2157	6/21/93	PSD/Air Toxics	Methanol Plant
2107 (M-1)	2/24/94	SIP	AMD Expansion (minor chg.)
2236 (M--1)	3/28/94	SIP/NSPS	Gasoline & Diesel Storage Tanks
1984 (M-1)	1/30/95	SIP	Mod. Kellogg Ammonia Plant
2306	3/28/95	SIP	Utitlities Air Permit
Small Source Exemption	2/28/96	SIP	MMA Plant
1982 (M-4)	9/11/96	SIP/NSPS/Air Toxics	Expansion of MMA
Tank Service Change	6/5/97	SIP	MMA Plant Use MeOH Tk for ACH Storage
PSD-LA-575/594 (M-2) Adm.Chg.	12/5/96	PSD/NSPS/Air Toxics	Acid Regen Plant
1981 (M-4)	5/97	SIP/Flares Revision	Ammonia Emissions and Screening

X. OTHER ENVIRONMENTAL PERMITS (CONTINUED)

UIC Permit

The Fortier Plant operates five Class I disposal wells which are permitted by the State of Louisiana, Department of Natural Resources Office of Conservation (Permit No. 93-07WD). Additionally, EPA granted American Cyanamid (presently Cytec Industries Inc.) an exemption to the Land Disposal Restrictions for deepwell disposal into the 3,000 foot sand on 10/31/90. LDEQ granted final approval of Cytec's Exemption Petition to Land Disposal Restrictions on August 8, 1996.

Groundwater Certifications

- GW #92-264, Methanol Unit, May 8, 1992
- GW #93-076, Sulfuric Acid Regen Plant, October 28, 1992
- GW #93-174, Methanol Tank Farm and Rail Loading Facility, May 6, 1993
- GW #93-134, Acrylonitrile Plant Expansion, May 6, 1993;
- GW #93-197, Methyl Methacrylage Plant, May 18, 1993
- GW #95-062, Acrylamide (AMD) Aboveground Storage Tanks, September 30, 1994
- GW #95-160, New Acrylonitrile Storage Tank, February 17, 1995

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XI. Nature of Business *(Provide a brief description)*

Cytec Industries Inc. - Fortier Plant is a chemical manufacturing complex currently producing: acetonitrile, acrylamide, acrylonitrile, aminonitrile, ammonia, melamine, methanol, methyl methacrylate, and sulfuric acid.

XII. Process Codes and Design Capacities

A. **PROCESS CODE**- *Enter the code from the list of process codes below that best describes each process to be used at the facility. Thirteen lines are provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), describe the process (including its design capacity) in the space provided in Item XIII.*

B. **PROCESS DESIGN CAPACITY** - *For each code entered in column A, enter the capacity of the process.*
1. **AMOUNT** - *Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.*
2. **UNIT OF MEASURE** - *For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.*

C. **PROCESS TOTAL NUMBER OF UNITS** - *Enter the total number of units used with the corresponding process code.*

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
	Disposal:	
D79	Underground Injection	Gallons; Liters; Gallons Per Day; or Liters Per Day
D80	Landfill	Acre-feet or Hectare-meter
D81	Land Treatment	Acres or Hectares
D82	Ocean Disposal	Gallons Per Day or Liters Per Day
D83	Surface Impoundment	Gallons or Liters
D99	Other Storage	Any Unit of Measure Listed Below
	Storage:	
S01	Container (Barrel, Drum, Etc.)	Gallons or Liters
S02	Tank	Gallons or Liters
S03	Waste Pile	Cubic Yards or Cubic Meters
S04	Surface Impoundment	Gallons or Liters
S05	Drip Pad	Gallons or Liters
S06	Containment Building	Cubic Yards or Cubic Meters
S99	Other Disposal	Any Unit of Measure Listed Below
	Treatment:	
T01	Tank	Gallons Per Day or Liters Per Day
T02	Surface Impoundment	Gallons Per Day or Liters Per Day
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; or Btu's Per Hour
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour
T80	Boiler	Gallons or Liters
T81	Cement Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour
T82	Lime Kiln	
T83	Aggregate Kiln	
T84	Phosphate Kiln	
T85	Coke Oven	
T86	Blast Furnace	
T87	Smelting, Melting, Or Refining Furnace	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour
T88	Titanium Dioxide Chloride Process Oxidation Reactor	
T89	Methane Reforming Furnace	
T90	Pulping Liquor Recovery Furnace	
T91	Combustion Device Used In The Recovery Of Sulfur Values From Spent Sulfuric Acid	
T92	Halogen Acid Furnaces	
T93	Other Industrial Furnaces Listed In 40 CFR §260.10	
T94	Containment Building	Cubic Yards or Cubic Meters
	Miscellaneous (Subpart X):	
X01	Open Burning/Open Detonation	Any Unit of Measure Listed Below
X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; or Kilograms Per Hour
X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; or Btu's Per Hour
X04	Geologic Repository	Cubic Yards or Cubic Meters
X99	Other Subpart X	Any Unit of Measure Listed Below

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
Gallons	G	Short Tons Per Hour	D	Cubic Yards	Y
Gallons Per Hour	E	Metric Tons Per Hour	W	Cubic Meters	C
Gallons Per Day	U	Short Tons Per Day	N	Acres	B
Liters	L	Metric Tons Per Day	S	Acre-feet	A
Liters Per Hour	H	Pounds Per Hour	J	Hectares	Q
Liters Per Day	V	Kilograms Per Hour	R	Hectare-meter	F
				Btu's Per Hour	I

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XII. Process Codes and Design Capabilities *(Continued)*

EXAMPLE FOR COMPLETING ITEM XII (shown in line number X-1 below): A facility has a storage tank, which can hold 533.788 gallons.

Line Number		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY 1. Amount (Specify)	B. 2. Unit Of Measure (Enter code)	C. Process Total Number Of Units	For Official Use Only
X	1	S	0	2	533.788	G	001	
	1	D	7	9	2,160,000.	U	005	
	2	S	0	1	240.	Y	001	
	3	S	0	2	40.	G	001	
	4	T	0	1	4,176,000.	U	011	
	5	T	0	4	4,176,000.	U	003	
	6							
	7				Note: See Page 4A for additional information.			
	8							
	9							
1	0							
1	1							
1	2							
1	3							

NOTE: If you need to list more than 13 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for "other" processes (i.e., D99, S99, T04 and X99) in Item XIII.

XIII. Other Processes *(Follow instructions from Item XII for D99, S99, T04 and X99 process codes)*

Line Number (Enter its in seq w/XII)		A. Process Code (From list above)			B. PROCESS DESIGN CAPACITY 1. Amount (Specify)	B. 2. Unit Of Measure (Enter code)	C. Process Total Number Of Units	D. Description Of Process
X	1	T	0	4				In-situ Vitrification
	1	T	0	4	4,176,000	U	003	(See Page 4A for additional information.)
	2							
	3							
	4							

XII. PROCESS CODES AND DESIGN CAPABILITIES (CONTINUED)

PROCESS DESCRIPTIONS

Process	Code	Equipment Identification	Nominal Capacity [1]	Units
Underground Injection Disposal[2]	D79	Underground Injection Well No. 1-5	2,160,000 64,800,000	Gals/Day (3) Gals/Month
Container Storage	S01	Container Storage Building: Drum Storage Rolloff Bin Storage	 23,760 120	 Gallons Cubic Yards
Tank Storage	S02	MMA Lab Collection Tank (101-52)	40	Gallons
Tank Treatment	T01	Catalyst Settling Tank (TA-403) Primary Filter Feed Tank (TA-404) Secondary Filter Feed Tank (MF-307) WWCB Well Injection Tank (TA-402) North WWCB Backwash Tank South WWCB Backwash Tank MET NSB/RCB Backwash Tank (100-6) MET 1 Tank MET 2 Tank MET Injection Tank (T-500)	60,000 60,000 95,000 10,000 150,000 150,000 19,000 1,000,000 2,000,000 60,000	Gallons Gallons Gallons Gallons Gallons Gallons Gallons Gallons Gallons Gallons
		Subtotal	3,604,000	Gallons(4)
Other Treatment (5)	T04	WWCB Filter System: Primary Sand Filters (2 filters) Secondary Sand Filters (2 filters) Cartridge Filters (4 filters) RCB (formerly NSB) Sand Filter System (3 filters) Miscellaneous Effluent Sand Filter System (4 filters)	648,000 648,000 2,880,000	Gals/Day Gals/Day Gals/Day
		Subtotal	*4,176,000*	Gals/Day

(1) The "calculated capacity" can vary by as much as 10% from the "nominal capacity".
(2) Five (5) underground injection wells presently exist to dispose of waste into unconsolidated sand strata which cannot be fractured. On October 31, 1990, the EPA approved Cytec's petition for exemption to the Land Disposal Restrictions imposed by the Hazardous and Solid Waste Amendments of 1984 to the Resource Conservation and Recovery Act. Additionally, the wells are regulated by the Louisiana Department of Natural Resources. The exemption to the Land Disposal Restrictions for deepwell disposal requires that Cytec not exceed a cumulative waste volume of 64,800,000 gallons per month of restricted hazardous waste injected into 3,000 ft. sand, located at a depth between 2,980 and 3,220 feet. LDEQ additionally approved Cytec's deepwell land ban exemption petition on May 6, 1994.
(3) EPA exemption limits applicable to underground injection of restricted hazardous wastes.
(4) Total treatment system throughput is 4,176,000 gals/day, with individual tank capacities as noted.
(5) Various sand and cartridge filter systems presently exist as portions of the three (3) injection well pretreatment systems. The Waste Water Column Bottoms (WWCB) pretreatment system includes two sand filter systems, consisting of two filters apiece, and one cartridge filter system containing four filters (450 gpm). The recovery column bottoms (RCB) pretreatment system includes one sand filter system consisting of three filters (450 gpm). The miscellaneous effluent (MET) pretreatment system is inclusive of one sand filter system, consisting of four sand filters total (2,000 gpm).

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L A D 0 0 8 1 7 5 3 9 0	N A

XIV. Description of Hazardous Wastes

A. EPA HAZARDOUS WASTE NUMBER - *Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR, Part 261 Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.*

B. ESTIMATED ANNUAL QUANTITY - *For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.*

C UNIT OF MEASURE - *For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:*

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. **PROCESS CODES:**

For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item XII A. on page 3 to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item XII A. on page 3 to indicate all the processes that will be used to store, treat, and/ or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:

1. *Enter the first two as described above.*
2. *Enter "000" in the extreme right box of item XIV-D(1).*
3. *Enter in the space provided on page 7, item XIV-E, the line number and the additional code(s).*

2. **PROCESS DESCRIPTION:** *If a code is not listed for a process that will be used, describe the process in the space provided on the form (D.(2)).*

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. *Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.*
2. *In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "Included with above" and make no other entries on that line.*
3. *Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.*

EXAMPLE FOR COMPLETING ITEM XIV (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number	A. EPA HAZARD WASTE NO. (Enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (Enter code)	D. PROCESS (1) PROCESS CODES (Enter)	D. PROCESS (2) PROCESS DESCRIPTION (If a code is not entered in D(1))
X 1	K 0 5 4	900	p	T 0 3 D 8 0	
X 2	D 0 0 2	400	P	T 0 3 D 8 0	
X 3	D 0 0 1	100	P	T 0 3 D 8 0	
X 4	D 0 0 2				Included With Above

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L A D 0 0 8 1 7 5 3 9 0	N A

XIV. Description of Hazardous Wastes *(Continued)*

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES (1) PROCESS CODES (Enter code)	D. PROCESSES (2) PROCESS DESCRIPTION (If a code is not entered in D(1))
1	See Pages 6A through 6K.				
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					

Line No.	EPA Hazardous Waste No.	Estimated Annual Quantity of Waste	Unit of Measure (enter code)	Process Codes			Process Description
1.	D001	1,500,000	T	S01	T01	D80	Recovery Column Bottoms (formerly NSB) and Miscellaneous Effluent (MET)
2.	D002						Included with above"
3.	D003						"
4.	D007						"
5.	D008						"
6.	D018						"
7	D035						"
8.	D038						"
9.	D043						"
10.	F001						"
11.	F002						"
12.	F003						"
13.	F005						"
14.	K011						"
15.	K013						"
16	P030						"
17.	P063						"
18.	P069						"
19	U002						"
20	U003						"
21.	U007						"
22.	U008						"
23.	U009						"
24.	U092						"
25.	U154						"
26.	U162						"
27.	U220						"
28.	D002	100,000	T	S01	D79		Waste Acid
29.	D003	600,000	T	S01	T01	D80	Waste Water Column Bottoms
30.	D018						Included with above
31.	D038						"
32.	K011						"
33.	D001	1,000	T	S01			Container Storage Building
34.	D002						Included with above
35.	D003						"
36.	D004						"
37.	D005						"
38.	D006						"

Line No.	EPA Hazardous Waste No.	Estimated Annual Quantity of Waste	Unit of Measure (enter code)	Process Codes			Process Description
39.	D007						-
40.	D008						-
41.	D009						-
42.	D010						-
43.	D011						-
44.	D012						-
45.	D013						-
46.	D014						-
47.	D016						-
48.	D017						-
49.	D018						-
50.	D019						-
51.	D020						-
52.	D021						-
53.	D022						-
54.	D023						-
55.	D024						-
56.	D025						-
57.	D026						-
58.	D027						-
59.	D028						-
60.	D029						-
61	D030						-
62.	D031						-
63.	D032						-
64	D033						-
65.	D034						-
66.	D035						-
67.	D036						-
68.	D037						-
69.	D038						-
70.	D039						-
71.	D040						-
72.	D042						-
73.	D043						-
74.	F001						-
75.	F002						-
76.	F003						-
77	F004						-

Line No.	EPA Hazardous Waste No.	Estimated Annual Quantity of Waste	Unit of Measure (enter code)	Process Codes			Process Description
78.	F005						-
79.	F027						-
80.	K011						-
81.	K013						-
82.	P001						-
83.	P002						-
84.	P003						-
85.	P004						-
86.	P005						-
87.	P006						-
88.	P007						-
89.	P008						-
90.	P009						-
91.	P010						-
92.	P011						-
93.	P012						-
94.	P013						-
95.	P014						-
96	P015						-
97.	P016						-
98.	P017						-
99.	P018						-
100.	P020						-
101.	P021						-
102.	P022						-
103	P023						-
104.	P024						-
105.	P026						-
106.	P027						-
107.	P028						-
108.	P029						-
109.	P030						-
110.	P031						-
111.	P033						-
112.	P034						-
113.	P036						-
114.	P037						-
115.	P038						-
116.	P039						-

Line No.	EPA Hazardous Waste No.	Estimated Annual Quantity of Waste	Unit of Measure (enter code)	Process Codes			Process Description
117.	P040						-
118.	P041						-
119.	P042						-
120.	P043						-
121.	P044						-
122.	P045						-
123.	P046						-
124.	P047						-
125.	P048						-
126.	P049						-
127.	P050						-
128.	P051						-
129.	P054						-
130.	P056						-
131.	P057						-
132.	P058						-
133.	P059						-
134.	P060						-
135.	P062						-
136.	P063						-
137.	P064						-
138	P065						-
139.	P066						-
140.	P067						-
141.	P068						-
142.	P069						
143.	P070						-
144	P071						-
145.	P072						-
146.	P073						-
147.	P074						-
148.	P075						-
149.	P076						-
150.	P077						-
151.	P078						-
152.	P081						-
153.	P082						-
154.	P084						-
155.	P085						-

Line No.	EPA Hazardous Waste No.	Estimated Annual Quantity of Waste	Unit of Measure (enter code)	Process Codes			Process Description
156.	P087						-
157.	P088						-
158.	P089						-
159.	P092						-
160.	P093						-
161.	P094						-
162.	P095						-
163.	P096						-
164.	P097						-
165.	P098						-
166.	P099						-
167.	P101						-
168.	P102						-
169.	P103						-
170.	P104						-
171.	P105						-
172.	P106						-
173.	P108						-
174.	P109						-
175.	P110						-
176	P111						-
177.	P112						-
178.	P113						-
179.	P114						-
180.	P115						-
181	P116						-
182.	P118						-
183.	P119						-
184.	P120						-
185.	P121						-
186.	P122						-
187.	P123						-
188.	U001						-
189.	U002						-
190.	U003						-
191.	U004						-
192.	U005						-
193.	U006						-
194.	U007						-

Line No.	EPA Hazardous Waste No.	Estimated Annual Quantity of Waste	Unit of Measure (enter code)	Process Codes			Process Description
195.	U008						
196.	U009						
197.	U010						-
198.	U011						-
199.	U012						-
200.	U014						-
201.	U015						-
202.	U016						-
203.	U017						-
204.	U018						-
205.	U019						-
206.	U020						-
207.	U021						-
208.	U022						-
209.	U023						-
210.	U024						-
211.	U025						-
212.	U026						-
213.	U027						-
214.	U028						-
215	U029						-
216.	U030						-
217.	U031						-
218.	U032						-
219.	U033						-
220.	U034						-
221.	U035						-
222.	U036						-
223.	U037						-
224.	U038						-
225.	U039						-
226.	U041						-
227.	U042						-
228.	U043						-
229.	U044						-
230	U045						-
231.	U046						-
232.	U047						-
233.	U048						-

Line No.	EPA Hazardous Waste No.	Estimated Annual Quantity of Waste	Unit of Measure (enter code)	Process Codes			Process Description
234.	U049						-
235.	U050						-
236.	U051						-
237.	U052						-
238.	U053						-
239.	U055						-
240.	U056						-
241.	U057						-
242.	U058						-
243.	U059						-
244.	U060						-
245.	U061						-
246.	U062						-
247.	U063						-
248.	U064						-
249.	U066						-
250.	U067						-
251.	U068						-
252.	U069						-
253.	U070						-
254.	U071						-
255.	U072						-
256.	U073						-
257.	U074						-
258.	U075						-
259.	U076						-
260.	U077						-
261.	U078						-
262.	U079						-
263.	U080						-
264.	U081						-
265.	U082						-
266.	U083						-
267.	U084						-
268.	U085						-
269.	U086						-
270.	U087						-
271.	U088						-
272.	U089						-

Line No.	EPA Hazardous Waste No.	Estimated Annual Quantity of Waste	Unit of Measure (enter code)	Process Codes			Process Description
273.	U090						-
274.	U091						-
275.	U092						-
276.	U093						-
277.	U094						-
278.	U095						-
279.	U096						-
280.	U097						-
281.	U098						-
282.	U099						-
283.	U101						-
284.	U102						-
285.	U103						-
286.	U105						-
287.	U106						-
288.	U107						-
289.	U108						-
290.	U109						-
291.	U110						-
292.	U111						-
293.	U112						-
294.	U113						-
295.	U114						-
296.	U115						-
297.	U116						-
298.	U117						-
299.	U118						-
300.	U119						-
301.	U120						-
302.	U121						-
303.	U122						-
304.	U123						-
305.	U124						-
306.	U125						-
307.	U126						-
308.	U127						-
309.	U128						-
310.	U129						-
311.	U130						-

Line No.	EPA Hazardous Waste No.	Estimated Annual Quantity of Waste	Unit of Measure (enter code)	Process Codes			Process Description
312.	U131						-
313.	U132						-
314.	U133						-
315.	U134						-
316.	U135						-
317.	U136						-
318.	U137						-
319.	U138						-
320.	U140						-
321.	U141						-
322.	U142						-
323.	U143						-
324.	U144						-
325.	U145						-
326.	U146						-
327.	U147						-
328.	U148						-
329.	U149						-
330.	U150						-
331.	U151						-
332.	U152						-
333.	U153						-
334.	U154						-
335.	U155						-
336.	U156						-
337.	U157						-
338.	U158						-
339	U159						-
340.	U160						-
341.	U161						-
342.	U162						-
343	U163						-
344.	U164						-
345.	U165						-
346.	U166						-
347.	U167						-
348.	U168						-
349.	U169						-
350.	U170						-

Line No.	EPA Hazardous Waste No.	Estimated Annual Quantity of Waste	Unit of Measure (enter code)	Process Codes			Process Description
351.	U171						-
352.	U172						-
353.	U173						-
354.	U174						-
355.	U176						-
356.	U177						-
357.	U178						-
358.	U179						-
359.	U180						-
360.	U181						-
361.	U182						-
362.	U183						-
363.	U184						-
364.	U185						-
365.	U186						-
366.	U187						-
367.	U188						-
368.	U189						-
369.	U190						-
370.	U191						-
371.	U192						-
372.	U193						-
373.	U194						-
374.	U196						-
375.	U197						-
376.	U200						-
377.	U201						-
378.	U202						-
379.	U203						-
380.	U204						-
381.	U205						-
382.	U206						-
383.	U207						-
384.	U208						-
385.	U209						-
386.	U210						-
387.	U211						-
388.	U213						-
389	U214						-

Line No.	EPA Hazardous Waste No.	Estimated Annual Quantity of Waste	Unit of Measure (enter code)	Process Codes			Process Description
390.	U215						-
391.	U216						-
392.	U217						-
393.	U218						-
394.	U219						-
395.	U220						-
396.	U221						-
397.	U222						-
398.	U223						-
399.	U225						-
400.	U226						-
401.	U227						-
402.	U228						-
403.	U234						-
404.	U235						-
405.	U236						-
406.	U237						-
407.	U238						-
408.	U239						-
409.	U240						-
410.	U243						-
411.	U244						-
412.	U246						-
413.	U247						-
414	U248						-
415.	U249						-
416.	U328						-
417.	U353						-
418.	U359						-

XIV. DESCRIPTION OF HAZARDOUS WASTES - PROCESS CODES (CONTINUED)

Line No. 1 - T01, T04, D79
Line No. 29 - T04, D79

Note: Wastes represented by the majority of the waste codes on Line Nos. 33 through 418 have rarely, if ever, been generated at the Fortier Plant. The majority of the waste codes have been added to allow on-site management, i.e., storage of the waste without the need for additional permit modifications in the event that these wastes are generated in the future.

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved, OMB No. 2050-0034 Expires 10/31/99
GSA No. 0248-EPA-OT

EPA I.D. Number *(Enter from page 1)*	Secondary ID Number *(Enter from page 1)*
L A D 0 0 8 1 7 5 3 9 0	N A

XV. Map

Attach to this application a topographic map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements.

Refer to XVI. Facility Drawing.

XVI. Facility Drawing

All existing facilities must include a scale drawing of the facility (See instructions for more detail).

XVII. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

Refer to XVI. Facility Drawing.

XVIII. Certification(s)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner Signature: J S Gill MMF	Date Signed: 8/21/98
Name and Official Title (Type or print): Jaswant S. Gill, Director - Manufacturing, Building Blocks and Plant Manager	
Owner Signature	Date Signed
Name and Official Title (Type or print)	
Operator Signature	Date Signed
Name and Official Title (Type or print)	
Operator Signature	Date Signed
Name and Official Title (Type or print)	

XIX. Comments

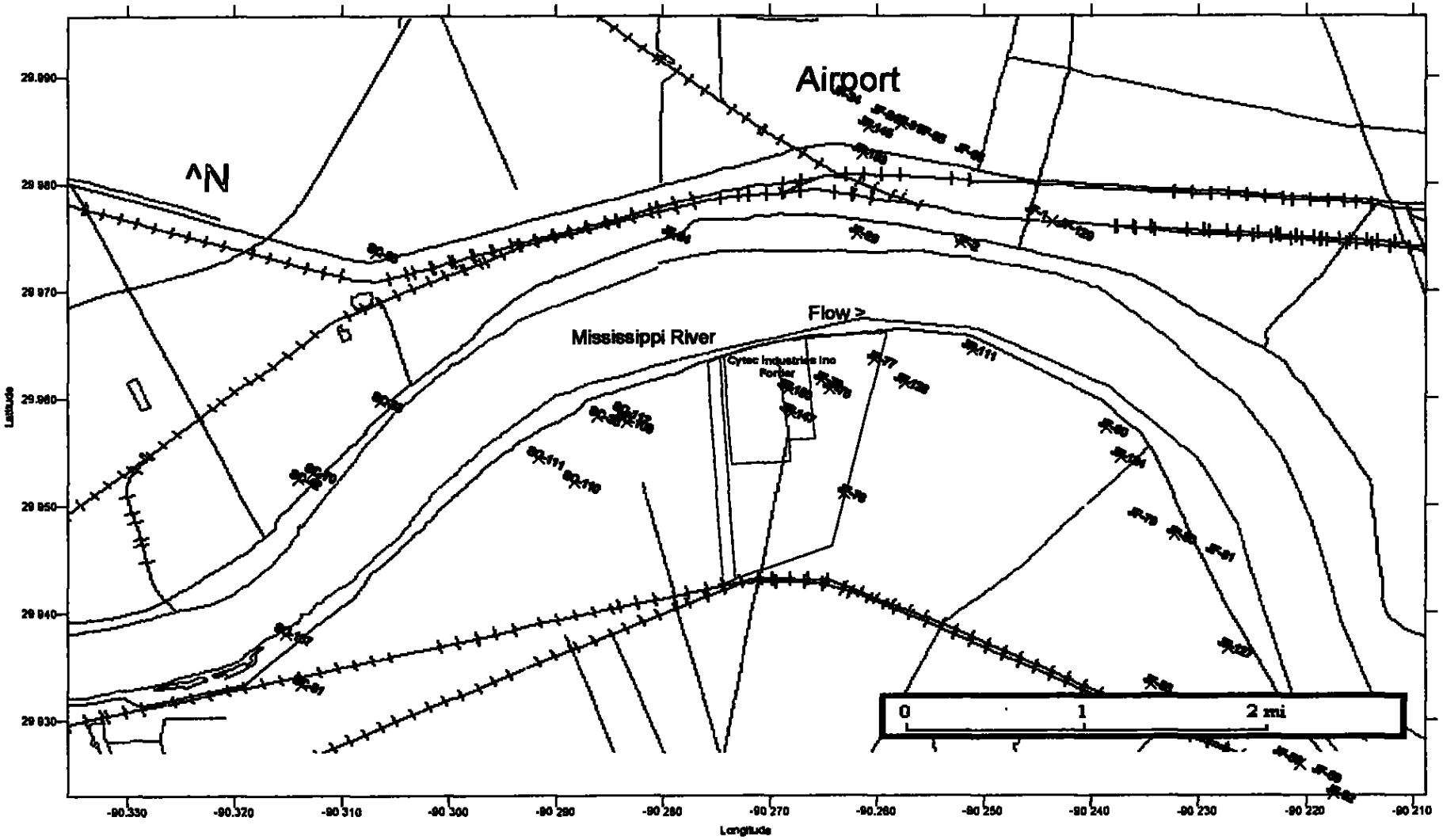
Additional information as required by LAC 33:V.515.A. is included in the attached "Part A/Part I Supplemental Information Required by LAC 33:V.515.A."

Note: Mail completed form to the appropriate EPA Regional or State Office. (Refer to instructions for more information)

Part A/Part I

XV. Map

Well locations within two miles of Cytec Industries, Fortier Plant
EPA ID. No LAD008175390



Reference: Louisiana Department of Transportation and Development, Registered Water Wells, Public Works and Flood Control Division, Water Resources Section, http://www.dotd.state.la.us/wells/intro.html

Part A/Part I

XVI. Facility Drawing

Reference Sheet

REF+51979

12/29/99 10:38 AM

Part A/Part I

XVII. Aerial Photograph

Reference Sheet

REF+51980

12/29/99 10:38 AM

Part A / Part I Supplemental Information Required By LAC 33:V.515.A.

LAC 33:V.515.A.6.
"...and a legal description of the site:..."

> **Response**: A legal description of the site is included as an attachment to the Part A /Part I hazardous waste permit application.

LAC 33:V.515.A.22.
"...list of other company hazardous waste operations in Louisiana (permitted or non-permitted and current or abandoned):..."

> **Response**: Cytec does not currently own or operate any other companies with hazardous waste operations in Louisiana.

LAC 33:V.515.A.23.
"...list other states in which hazardous waste operations are or have been conducted:..."

> **Response**: Cytec (formerly American Cyanamid Company) is conducting or has conducted hazardous waste operations in Alabama, California, Connecticut, Florida, Georgia, Indiana, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New Jersey, New York, North Carolina, Ohio, Tennessee, Texas, and West Virginia.

LAC 33:V.515.A.24.
"...zoning of site, if applicable:..."

> **Response**: Cytec is zoned M2 for heavy industry as designated by Jefferson Parish.

LAC 33:V.515.A.25.
"..for hazardous debris: a description of the debris category(ies) and contaminant category(ies) to be treated, stored, or disposed of at the facility;..."

> **Response**: Cytec has the potential to generate, treat and store all categories of hazardous debris as defined in LAC 33:V.2203, LAC 33:V.2230 and LAC 33:V. Chapter 22. Table 8. In general, this includes solid material exceeding a 60-mm particle size that is intended for disposal and that is a manufactured object, or plant or animal matter, or natural geologic material. Examples include but are not limited to brick, cloth, concrete, paper, rock, wood, pavement, glass, metal, plastic, rubber, etc....
>
> Cytec has the potential to generate all categories of contaminants as defined in LAC 33:V.2230. In general, this includes contaminants subject to treatment for debris that exhibits the Toxicity Characteristic, contaminants subject to treatment for debris that is contaminated with a prohibited listed waste, and hazardous debris that is reactive because of cyanide.

LAC 33:V.515.A.6

Legal Description

9402234 CB 2886 776 ORIGINAL 94-02234

23 pc
48 oi

UNITED STATES OF AMERICA

STATE OF NEW JERSEY

COUNTY OF PASSAIC

ACT OF EXCHANGE

by and between

AMERICAN CYANAMID COMPANY

and

CYTEC INDUSTRIES INC.

BE IT KNOWN, that on this 17th day of December, 1993, before the me, undersigned Notary Public, duly commissioned and qualified in and for the State and County named in the caption hereto, and in the presence of the undersigned competent witnesses, personally came and appeared:

> AMERICAN CYANAMID COMPANY, a Maine corporation ("AmCy"), whose mailing address is One Cyanamid Plaza, Wayne, New Jersey 07470-8426 and whose taxpayer identification number is 13-0430890, appearing through and herein represented by J. S. McAuliffe, its Vice President, duly authorized to act herein as per the resolution of the board of directors of AmCy, a certified copy of which is attached hereto,

who declared to me, Notary, that AmCy does by these presents grant, bargain, convey, transfer, assign, set over, abandon and deliver, without any warranty whatsoever - not even for the return of the consideration or any portion thereof, but with full subrogation and substitution in and to all the rights and actions of warranty which AmCy has or may have against all preceding owners, to:

> CYTEC INDUSTRIES INC., a Delaware corporation ("Cytec"), whose mailing address is 5 Garret Mountain Plaza, West Paterson, New Jersey 07424 and whose taxpayer identification number is

22-3216660, appearing through and represented by C.C. JACKMAN, its VICE PRESIDENT, duly authorized hereunto,

here present, accepting and purchasing for Cytec and its successors and assigns, and acknowledging due delivery and possession thereof, all and singular, property in Louisiana the "Property") described in Exhibit "A" attached hereto and made part hereof.

TO HAVE AND TO HOLD the Property to Cytec, Cytec's successors and assigns forever.

This sale is made and accepted subject to (i) all matters of public record, including, without limitation, all mineral reservations, servitudes, title restrictions, rights of way, notices of building contracts and any liens or encumbrances affecting the Property, and (ii) all zoning and other governmental title and use restrictions affecting the Property.

This act is also made and accepted AS IS, WHERE IS, without any warranties, express or implied, of any kind whatsoever as to the zoning classification, permitted uses, condition, operability, safety, environmental condition or fitness for intended purpose or use of the Property or the absence of apparent or hidden defects in the Property. Cytec hereby waives (a) the warranty against hidden defects or redhibitory vices in the Property otherwise imposed by Article 2476 of the Louisiana Civil Code or other applicable law, and (b) any rights it may otherwise have in redhibition pursuant to Articles 2520 through 2548 of the Louisiana Civil Code or other applicable law, and

releases AmCy from any liability which may otherwise arise out of warranty or otherwise in law or equity and rights in connection with this act.

In exchange for and in consideration of the conveyance of the Property together with other real estate of AmCy situated in various other States (collectively, the "Other Property") involved in AmCy's chemical and plant food businesses (the "Chemical and Plant Food Businesses"), and certain other assets of the Chemical and Plant Food Businesses, contemporaneously herewith (i) Cytec has issued and delivered to AmCy, approximately 12,857,000 shares of the $.01 par common shares of Cytec together with certain preferred stock, being all of the issued and outstanding capital stock of Cytec (the "Capital Stock"), and (ii) Cytec has assumed all of the liabilities of AmCy relating to or arising out of the Chemical and Plant Food Businesses (collectively, the "Liabilities"). Cytec hereby represents and warrants that the aforesaid capital shares have been duly authorized for issuance to AmCy.

Appearers acknowledge that the value of the Capital Stock received by AmCy for the conveyance and transfer of the Property and the Other Property and the transfer of Liabilities, is equal to the value of the Property and Other Property acquired by Cytec coupled with the assumption of Liabilities.

The effective date of this act of exchange shall be December 17, 1993.

94-02234

THUS DONE, SIGNED AND PASSED, in multiple originals before me, the undersigned Notary Public, and in the presence of the undersigned competent witnesses, who have hereunto signed their names, together with said appearers and me, Notary, on the date first written above.

WITNESSES:

E.C. Roth

K.M. Stockhouse

AMERICAN CYANAMID COMPANY

By: [signature]
J.S. McMuliffe
Its Vice President

CYTEC INDUSTRIES INC.

By: E.F. Jackman
E.F. Jackman
Its Vice President

Patricia Lipowsky
NOTARY PUBLIC
State of New Jersey
My Commission Expires:

PATRICIA LIPOWSKY
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES JULY 18, 1998

EXHIBIT "A"
to
ACT OF EXCHANGE
by and between
AMERICAN CYANAMID COMPANY
and
CYTEC INDUSTRIES INC.

AMERICAN CYANAMID COMPANY

TRACT 1

A CERTAIN LOT OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, located in Section 3, Township 13 South, Range 22 East, Southeastern District of Louisiana, West of the Mississippi River, designated as LOT "D", according to a survey made by Adloe Orr, Jr., Surveyor and Civil Engineer, dated March 22, 1954, which survey is attached to and made part of the act of sale by James A. Petit to Emma Mae Petit, dated March 29, 1954; passed before Jacob J. Amato, Notary Public, in and for the Parish of Jefferson, State of Louisiana, and duly registered in COB 354, folio 377, Parish of Jefferson, State of Louisiana, which said Lot "D" measures as follows:

Beginning at a point of Highway No. 30 (now River Road) and Lucille Avenue (now Fortier Heights) of three hundred and fifty (350') feet and thence measures seventy-five (75') feet front on Lucille Avenue (now Fortier Heights), same width in the rear, and on the sideline towards Lot "C" of 70.52 feet, and adjoining Lot "E" of 70.40 feet as per survey and as per title (sometimes stated in the title as being 70.52') and which is bounded in the rear by the property of Edwin A. Heurtin.

TRACT 2

A CERTAIN LOT OR PORTION OF GROUND, together with all the buildings and improvements thereon, situated on the right bank of the Mississippi River in the Parish of Jefferson, State of Louisiana, in Section 3, T13S, R22E, Southeast District of Louisiana, and being a portion of the upper one-half (1/2) of original Lot Number One (1) on a plan by Louis Surgi, dated February 21, 1837, and deposited as Plan No. 54 on the Book of Plans of Felix Grima, Notary Public, in New Orleans.

According to the Plan of Subdivision of Dading, Marques & Associates, Inc., L.S., dated December 21, 1988, adopted by the Jefferson Parish Council on February 15, 1989, under Ordinance No. 17677, filed for record in COB 2143, folio 284, Instrument No. 8909058, said lot is designated by the **LOT NO. 1-D** as shown to contain 568,268 square feet (13.05 acres), and is more fully described as follows:

Said lot measures 71.50 feet along the 40 arpent line, 93.62 feet along the line adjacent to Lot 1-C, 7021.96 feet along the line adjacent to the property formerly owned by the Estate of Jacob Amato and 7044.01 feet along the line common to Sections 2 and 3.

Together with a 25 foot servitude of passage across Lots 1-C, 1-B and 1-A as shown on the plan of resubdivision referred to above, which provides access to River Road (LA Highway No. 18, formerly LA Highway No. 30).

TRACT 3

ONE CERTAIN PIECE OR PORTION OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, said piece or portion of ground being situated on the right descending bank of the Mississippi River, Parish of Jefferson, about 5-1/2 leagues above the City of New Orleans, in Section 3, T13S, R22E, Southeast Land District, and designated as the **LOWER PORTION OR LOWER 1/2 OF LOT** 1 on a plan of Louis Surgi, dated February 21, 1837, and deposited as Plan No. 54 of Book of Plans of Felix Grima, Notary Public, said piece or portion of ground measures 1/2 arpent front on the Mississippi River by a depth of 40 arpents between parallel lines, which closes toward the rear so that the said portion of ground herein measures in the rear 71-1/2 feet, bounded on one side by property now or formerly belonging to Eusebe Petit, said Lot No. 1 forms a larger portion of ground divided into lots on plans hereinabove recited, recorded in COB 272, folio 232 of the records of Jefferson Parish. Also shown on Parish Map, Plan Book Ward 4 and 5, Sheet No. 29 W.

The above described property bears the Municipal No. 7617 River Road.

LESS AND EXCEPT:

THAT CERTAIN STRIP OF LAND, together with all the buildings and improvements thereon, comprising the batture to said Lot No. 1, more particularly described as that portion of said Lot No. 1 bounded by the Mississippi River on the north and by River Road on the south and measuring approximately 1/2 arpent front on the Mississippi River, which said strip or batture is hereby retained and reserved by Vendors.

The above described property bears Municipal No. 7617 River Road.

TRACT 4

A CERTAIN PIECE OR PORTION OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, in that portion thereof known as Section 3, Township 13 South, Range 22 East, Southeastern District of Louisiana, West of the Mississippi River, all in accordance with the survey of Adloe Orr, Jr. & Associates, C.E., dated November 10, 1955, and designated as **LOT NO. 10 IN FORTIER HEIGHTS SUBDIVISION**, and measures as follows, to-wit:

Lot No. 10 is bounded by Fortier Heights, Third Street, the western boundary of the subdivision and Second Street, commences 60.00 feet from the corner of Fortier Heights and Section Street, measures 60.00 feet front on Fortier Heights, same width in the rear, by a depth of 113.28 feet on the sideline nearer Second Street, by a depth on the opposite sideline of 113.12 feet. Fortier Heights was formerly Lucille Street. All as more fully shown on a more recent survey made by Don A. Garland, C.E., dated May 17, 1971.

The improvements thereon bear the Municipal Address 204 Fortier Heights.

TRACT 5

(LOTS 1, 3, AND 7, FORTIER HEIGHTS SUBDIVISION)

THREE CERTAIN LOTS OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, in that part thereof known as **FORTIER HEIGHTS SUBDIVISION**, located in Section 3, Township 13 South, Range 22 East, Southeastern District of Louisiana, West of the Mississippi River, and described as follows:

LOT NO. 1 measures 58 feet front on Lucille Avenue (now Fortier Heights Avenue), 89.85 feet in width in the rear, by a depth on the northern side line of 118.37 feet and a depth on the south side line of 113.85 feet, all according to a survey by J.J. Krebs and Sons, C.E. and S., dated March 22, 1960.

The improvements thereon now bear the Municipal Address 141 Fortier Heights Avenue (formerly No. 132 Fortier Heights Avenue).

LOT NO. 3 measures 57 feet front on Lucille Avenue (now Fortier Heights Avenue), the same width in the rear, by a depth on its northern side line of 113.85 feet and a depth on its southern side line of 113.70 feet, all according to a survey by J.J. Krebs and Sons, C.E. and S., dated July 15, 1959.

The improvements thereon now bear the Municipal Address 145 Fortier Heights Avenue.

LOT NO. 7 measures 60 feet front on Lucille Avenue (now Fortier Heights Avenue), the same in width in the rear, by a depth on its northern side line of 113.55 feet and a depth on its southern side line of 113.40 feet, all according to a survey by J.J. Krebs and Sons, C.E. and S., dated August 23, 1960.

The improvements thereon bear Municipal Address 155 Fortier Heights Avenue (formerly 138 and 148 Fortier Heights).

TRACT 6

ONE CERTAIN LOT OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, in that part thereof known as **FORTIER HEIGHTS**, a subdivision certified correct in accordance with a plan of subdivision made by Adloe Orr, Jr., C.E., under date of November 16, 1953, and duly approved by the Police Jury of the Parish of Jefferson, in COB 353, folio 439. Said lot is designated by the NO. 6 on said plan and measures 60 feet front on Lucille Avenue (now Fortier Heights Avenue), same width in the rear, by a depth and front on Second Street of 113.57 feet and a depth of 113.72 feet on the opposite side line.

The improvements thereon bear Municipal No. 152 Fortier Heights, Westwego, Louisiana.

TRACT 7

TWO CERTAIN LOTS OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, in that part thereof known as **FORTIER HEIGHTS SUBDIVISION**, designated according to a plan on file in the office of the Clerk of Court and Recorder for the Parish of Jefferson, by Adloe Orr, Jr., C.E., dated November 6, 1953, approved by the Police Jury of the Parish of Jefferson on December 9, 1953, which said lots are designated by the **NUMBERS LOT NO. 15 AND LOT NO. 17.**

TRACT 8

94-02234

LOT A

A CERTAIN LOT OR PORTION OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, on the right descending bank of the Mississippi River and being located in Section 3, Township 13 South, Range 22 East, which certain lot or portion of ground is designated as LOT A on a plan of survey by E.M. Collier, Surveyor, dated November 7, 1953, a copy of which is annexed to an Act of Partition between Nadage Petit, et al., passed before Charles S. Lagarde, Jr., Notary Public, on May 29, 1954, and registered in COB 359, folio 560 of the records of the Clerk of Court of Jefferson Parish.

According to the above map by E.M. Collier, Lot "A" has a width or front on Louisiana Highway No. 30 of 119.62 feet title, a depth along the property of C.J. Brown of 125 feet, a depth along the street on the eastern side of 125 feet, and a width in the rear along Lot B of 119.51 feet.

According to a Plan of Resubdivision of William Maier, Civil Engineer, dated July 25, 1962, approved by the Jefferson Parish Council by Ordinance No. 5673, dated July 26, 1962, registered in COB 557, folio 735, said Lot A was subdivided into Lots A-1 and A-2, said Lot A-1 fronting on Louisiana Highway 30 (River Road) 119.62 feet, with a width in the rear of 119.58 feet, between equal and parallel lines of 50 feet in depth. Lot A-2 is adjacent to Lot A-1 with a front of 75 feet on Lucille Avenue, same width in the rear, with a depth on the sideline adjacent to Lot A-1 of 119.58 feet, and a depth on the sideline adjacent to Lot B of 119.40 feet.

LOT B

A CERTAIN LOT OR PORTION OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, on the right bank (descending) the Mississippi River and being located in Section 3, Township 13 South, Range 22 East, which certain lot or portion of ground is designated as LOT B on a plan of survey by E.M. Collier, Surveyor, dated November 7, 1953, a copy of which is annexed to an Act of Partition between Nadage Petit, et al., passed before Charles S. Lagarde, Jr., Notary Public, on May 29, 1954, and registered in COB 359, folio 560 of the records of the Clerk of Court for the Parish of Jefferson. According to the above referenced map by E.M. Collier, Lot "B" has a width or front of one hundred twenty-five (125') feet on a street situated on its eastern side, by a depth along the line of Lot "A" of one hundred nineteen and fifty-one hundredths (119.51') feet, and a depth along the line of Lot "C" of one hundred nineteen and forty hundredths (119.40') feet, and a width in the rear along the property line of C.J. Brown of one hundred twenty-five (125') feet.

The improvements thereon bear the Municipal Nos. 104 and 106 Fortier Heights, Jefferson Parish, Louisiana.

TRACT 9

TWO CERTAIN LOTS OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, located in Section 3S, R22E, Southeastern District of Louisiana, West of the Mississippi River, in that part of known as FORTIER HEIGHTS SUBDIVISION. Said lots are more particularly described as follows:

LOTS 9 AND 11, which said lots are bounded by Fortier Heights (formerly Lucille Avenue), River Road (Highway 30), the East boundary of the Subdivision, and the South boundary of the Subdivision. Lot 9 commences seven hundred thirty-five feet (735') from the corner of Fortier Heights and River Road (Highway 30) and measures thence sixty feet (60') front on Fortier Heights, same width in the rear, by a depth of one hundred thirteen and 40/100ths feet on the sideline nearest River Road (Highway 30) and a depth of one hundred thirteen and 25/100ths feet on the opposite side. Lot 11 adjoins Lot 9 and thence measures sixty feet (60') front on Fortier Heights (formerly Lucille Avenue), same width in the rear, by a depth of one hundred thirteen and 25/100ths feet on the sideline nearest River Road (Highway 30), and a depth of one hundred thirteen and 10/100ths feet on the opposite side.

All as per survey dated May 27, 1981, by Mandle Surveying, Inc.

The improvements thereon bear the Municipal Address 201 Fortier Heights.

TRACT 10

A CERTAIN PIECE OR PORTION OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, in that part thereof known as FORTIER HEIGHTS SUBDIVISION, which said lots are designated as LOTS 8 AND 12, being part of Lots A and B, and is more particularly described as follows:

Lots 8 and 12, Fortuer Heights Subdivision, said lots being bounded on the front by Lucille Avenue. Lot 8 being on the corner of Fortuer Heights (late Lucille Avenue) and Second Street and Lot 12 being located 120 feet from said corner. Said Lot 8 measures 60 feet front on Lucille Avenue, same width in the rear and having a depth measurement of 113.43 feet on the North side and 113.28 feet on South side. Said Lot 12 measures 60 feet front on Lucille Avenue, same width in the rear and having a depth measurement of 113.12 feet on North side and 112.96 feet on South side. Said lots are part of Lots A and B located in Section 3, T 13 S, R 22 E, S.E. District of Louisiana, West of the Mississippi River, all in accordance with a survey by Adloe Orr, Jr., Surveyors, dated November 6, 1953. And as per survey of Sterling Mandle, Registered Surveyor, dated August 10, 1978, a copy of which is annexed to an act of sale dated August 11, 1978, passed before Edward J. Demartini, Notary Public, registered in COB 935, folio 561.

TRACT 11

THOSE TWO CERTAIN PIECES OR PORTIONS OF GROUND, together with the batture thereto, all as more fully described below, to-wit:

A CERTAIN PIECE OR PORTION OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, in Section 2, Township 13 South, Range 22 East, on the right bank of the Mississippi River, about eighteen miles above the City of New Orleans, measuring ninety-four (94') feet and one-sixth (1/6) of a foot on the River Mississippi (Mississippi River), by forty (40) Aprents, more or less, in depth between parallel lines, and is designated as LOT "CP NO. 1" on a sketch annexed to an Act of Partition passed before C.C. Porter, a late Notary Public in an for Jefferson Parish, Louisiana, on June 28th, 1853.

The improvements thereon bear the Municipal Numbers 11615 and 11619 River Road.

A CERTAIN PIECE OR PORTION OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, in Section 2, Township 13 South, Range 22 East, on the right bank of the Mississippi River, about eighteen miles above the City of New Orleans, measuring ninety-four (94') feet and one-sixth (1/6) of a foot on the River Mississippi (Mississippi River), by forty (40) Aprents, more or less, in depth between parallel lines, and is designated as LOT "MP NO. 2" on a sketch annexed to an Act of Partition passed before C.C. Porter, a late Notary Public in an for Jefferson Parish, Louisiana, on June 28th, 1853.

The improvements thereon bear the Municipal Number 11625 River Road.

TOGETHER WITH THOSE CERTAIN STRIPS OF LAND, together with all the buildings and improvements thereon, comprising the batture to the two above-described properties, described as those portions of the above-described properties which are bounded on the south by River Road (Louisiana Highway No. 18, formerly Louisiana Highway No. 30) and on the north by the Mississippi River, and which measure approximately 188 feet front on the Mississippi River.

TRACT 12

PROPERTY NO. 1

A CERTAIN PIECE OR PORTION OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, located in Section 3, Township 13 South, Range 22 East, Southeastern District of Louisiana, West of the Mississippi River, designated as **PARTS OF LOTS "A" AND "B"** according to a survey made by Joseph F. Varisco, Jr., C.E. & S., dated July 25, 1973, revised October 2, 1987, which said Parts of Lots "A" and "B" are located, delineated and measure as follows, to-wit:

Commencing at the intersection of the center line of Fortier Heights (formerly Lucille Avenue) and the south right of way line of Highway No. 30, thence South 71 degrees, 19 minutes, 33 seconds West 25.94 feet in actual measurement (24.94 feet in title measurement) to a point; thence, from said point, South 3 degrees, 14 minutes East a distance of 500 feet to a point; thence from said point, South 71 degrees, 9 minutes, 29 seconds West a distance of 118.29 feet to a point on the west line of Lot "B"; thence, from said point, South 3 degrees, 23 minutes East a distance of 1930.20 feet to the point of beginning; thence, from said point of beginning, continuing South 3 degrees, 23 minutes, East, a distance of 4973.03 feet along the west line of Lot "B" to a point on the 40 arpent line; thence from said point, North 68 degrees, 15 minutes East, along the 40 arpent line a distance of 255.91 feet to a point on the east line of Lot "A"; thence North 30 degrees, 5 minutes, 23 seconds West along the east line of Lot "A" a distance of 4892.85 feet to a point; thence, from said point, South 86 degrees, 31 minutes, 58 seconds West a distance of 267.96 feet to the point of beginning; said portions of Lots "A' and "B" contain 28.91 acres.

PROPERTY NO. 2

FORTY-SIX CERTAIN LOTS OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, in that subdivision known as **FORTIER HEIGHTS**, said lots being designated and shown on a plan of said Fortier Heights Subdivision made by Adloe Orr, Jr., Civil Engineer, dated November 16, 1953, approved by the Parish Engineer on December 9, 1953 and also approved by the Jefferson Parish Police Jury on December 9, 1953, said plan being filed in Map Book 125, folio 131, which said lots are designated as follows, to-wit:

LOTS NOS. 2, 5, 13, 16, 19, 20, 21, 23, 24, 25, 27, 28, 29, 31 THROUGH 61, 63 AND 65.

Lot No. 2 measures 71.69 feet front on Fortier Heights (formerly Lucille Avenue) and 40.20 feet in width in the rear.

The remainder of said lots above measure, each, 60 feet front on Fortier Heights (formerly Lucille Avenue) and the same width in the rear.

The respecuve depths and side lines of each of the above lots is in accordance with the subdivision plan above mentioned.

All according to a survey made by Joseph F. Varisco, Jr., C.E., dated October 2, 1987.

TRACT 13

THAT CERTAIN PIECE OR PORTION OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, in Section 3, Township 13 South, Range 22 East, Southeastern District, in **FORTIER HEIGHTS SUBDIVISION**, in square bounded by Lucille Avenue, Second Street, Third Street, and the western line of the subdivision, designated as *LOT NO. 26*, which said lot commences at a distance of 120 feet from the corner of Lucille Avenue and Third Street, and measures thence 60 feet front on Lucille Avenue, the same in width in the rear, by a depth along the side line nearer Third Street of 111.86 feet, by a depth along the opposite side line of 112.02 feet, all in accordance with the survey of Adloe Orr, Jr. & Associates, C.E., dated October 29, 1958.

The improvements thereon bear No. 241 Lucille Avenue, now known as 246 Fortier Heights Drive.

TRACT 14

ONE CERTAIN LOT OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, in that part thereof known as **FORTIER HEIGHTS**, a subdivision certified correct in accordance with a plan of subdivision made by Adloe Orr, Jr., Civil Engineer, under date of November 16, 1953, and duly approved by the Police Jury of the Parish of Jefferson, on December 9, 1953, and registered in the Parish of Jefferson, in COB 353, folio 439. Said lot is designated by the NO. 30 on said plan of subdivision and measures thence 60 feet front on Lucille Avenue, same width in the rear, by the following depths, to-wit:

Lot No. 30 has a depth of 111.71 feet on the division line of Lot No. 28 and a depth and front on Third Street of 111.55 feet.

Improvements thereon bear Municipal No. 245 Lucille Avenue, now known as 256 Fortier Heights Drive.

All in accordance with survey of Gilbert, Kelly and Couture, S. and E., dated March 4 1976, copy of which is annexed to an act dated April 2, 1976, passed before Pat W. Browne, Jr., N.P., and filed for record at COB 858, folios 764 and 765, under Entry No. 714412, except said square is bounded by Third Street, Fortier Heights (late Lucille Avenue), Second Street and the west line of the subdivision, and the improvements thereon bear Municipal No. 2[illegible]. Fortier Heights.

TRACT 15

THAT CERTAIN PIECE OR PORTION OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, in that part thereof known as **FORTIER HEIGHTS**, a subdivision certified correct in accordance with a plan of subdivision made by Adloe Orr, Jr., Civil Engineer, under date of November 16, 1953, and duly approved by the Police Jury of the Parish of Jefferson, on December 9, 1953, and registered in the Parish of Jefferson, in COB 353, folio 439, said lot is designated by the NO. 14 on said plan of subdivision and measures thence 60 feet front on Lucille Avenue, same width in the rear, by the following depths, to-wit:

Lot No. 14 has a depth of 112.96 feet on the line dividing it from Lot No. 12 and a depth of 112.81 feet on the division line of Lot No. 16. All as more fully shown on survey made by Adloe Orr, Jr. & Associates, C.E., dated January 10, 1968, resurveyed October 30, 1968, and Lot No. 14 is situated in the square bounded by Lucille (Fortier Heights) Avenue, Second and Third Streets and the western line of Fortier Heights Subdivision, and commences at a distance of 480 feet from the corner of Lucille Avenue and Third Street.

The above-described property is shown on a plat of survey of Sterling Mandle, Mandle Surveying, Inc., dated April 17, 1985, according to which the above-described property has the same location and measurements as hereinabove given, and the improvements on the property are designated by the No. 214 Fortier Heights (late Lucille) Avenue. Said plat is annexed to the act of sale before Patricia B. Amona, Notary Public, dated May 28, 1985, registered at COB 1252, folio 171, under Entry No. 85-23575, Jefferson Parish.

94-02234

TRACT 16

ONE CERTAIN PORTION OF GROUND, together with all the buildings and improvements thereon, situated Section 3, Township 13 South, Range 22 East, Southeast Land District, Jefferson Parish, Louisiana, and designated as LOT 1-A on a plan of survey dated December 21, 1988 by Richard T. Dading, Registered Professional Land Surveyor, Dading, Marques & Associates, Inc., which was approved by Ordinance No. 17677, which is filed for record in COB 2143, folio 284, under Entry No. 89-09058; said portion of ground being a portion of the upper one-half of Lot 1 on a plan dated February 21, 1837 by Louis Surgi, which is deposited as Plan No. 54 of the Book of Plans of Felix Grima, Notary in New Orleans, said portion of ground being more fully described as follows:

Commence at the intersection of the Jefferson Parish - St. Charles Parish line with the south right of way of River Road (Louisiana Highway 18), and measures N 63 degrees, 58 minutes, 13 seconds E, along the south right of way line of River Road, a distance of 609.65 feet (609.95 feet per title) to the point of beginning; thence continue along the south right of way line of River Road (Louisiana Highway 18) N 73 degrees, 25 minutes, 50 seconds E, a distance of 97.68 feet to a point on the line common to the now or formerly Estate of Jacob Amato property; thence measure along said line S 03 degrees, 32 minutes, 28 seconds E, a distance of 218.37 feet to a point; thence measure S 86 degrees, 15 minutes W, a distance of 94.44 feet to a point on the section line common to Sections 2 and 3; thence measure N 03 degrees, 45 minutes W, a distance of 196.70 feet to the point of beginning.

SUBJECT TO the twenty-five foot (25') servitude of passage located as shown on said plan by Richard T. Dading.

According to said plan by Richard T. Dading, said portion of ground contains 19,678 square feet.

TRACT 17

THOSE CERTAIN LOTS OR PORTIONS OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, which are designated as:

SQUARE 2, LOTS 5-8; SQUARE 3, LOTS 1-8; SQUARE 4, LOTS 1-8; SQUARE 5, LOTS 1-8; SQUARE 6, LOTS 1-8; SQUARE 7, LOTS 1-8.

on the plat dated May 8, 1982, captioned "Partition of the Louis Lauve Tract located in Section 2, T 13 S, R 22 E", by R.P. Bernard, Registered Land Surveyor, which is attached to the act of partition dated January 13, 1990 among Amay M. Lauve, et al., which is registered in COB

2291, folio 121, as Instrument No. 90-02290: which lots form a portion of the tract marked S.P. No. Three (3) on a sketch annexed to an act of partition before C.G. Porter, late Notary for Jefferson Parish, on the 28th day of June 1853, being a partition between Marie Paquet, et al., which tract measures ninety-four and one-sixth (94-1/6) feet front on the right descending bank of the Mississippi River by a depth of forty (40) arpents, more or less, and forms a part of a larger tract of land situated about eighteen (18) miles above the City of New Orleans, which larger tract measures three (3) arpents on said river by a depth of forty (40) arpents, more or less, and is bounded by lands formerly belonging to D.Lanoux and on the other side by E. Toups.

TRACT 18

TWO CERTAIN LOTS OF GROUND, together with all the buildings and improvements thereon, which are situated in the Parish of Jefferson, which form part of the upper half of Lot No. 1 on a plan made by Louis Surgi, dated February 21, 1837, which plan is deposited as Plan No. 54 of the Book of Plans of Felix Grima, Notary in New Orleans; and which are designated as LOTS 1-B AND 1-C on the plat of survey and plan of resubdivision dated December 21, 1988, by Richard T. Dading, Registered Professional Land Surveyor, of Dading, Marques & Associates, Inc., which plan was approved by Ordinance No. 17677, which ordinance is registered in COB 2143, folio 284, as Instrument No. 89-09058.

Lot 1-B being part of the same property conveyed by act of sale dated January 3, 1955 from Joseph Lanoux to Joseph T. Lanoux, before Charles S. Lagarde, Jr., N.P., which act is registered in COB 372, folio 594, as Instrument No. _____, and which was further conveyed by the Judgment of Possession in the Succession of Joseph T. Lanoux, which is registered in COB 628, folio 622, as Instrument No. _____.

Lot 1-C being the same property conveyed by act of sale dated August 7, 1969, from Jane Lanoux Mars and Gloria Martha Lanoux Tassin to Gloria Petit (born Gloria Cantrelle, widow of Joseph T. Lanoux, wife of Lynn Petit), wife of and Lynn Petit, before Joel T. Chaisson, N.P., which act is registered in COB 703, folio 185, as Instrument No. 467376.

Lots 1-B and 1-C contain additional ground which was not conveyed in the acts referenced above, but which was conveyed by Jane Lanoux Mars and Gloria Martha Lanoux Tassin by the Judgment os Possession in the Succession of Joseph Lanoux and Josephine Petit Lanoux, which is registered in COB 765, folio 757, as Instrument No. _____.

TRACT 19

94-02234

A CERTAIN LOT OR PORTION OF GROUND, together with all the buildings and improvements thereon, which are situated in the Parish of Jefferson, State of Louisiana, being a portion of the lower one-half (1/2) of Lot Five (5) of the Jean Lewis Pacquet, et al., Tract situated in Section 2, T-13-S, R-22-E, said lot commences on the lower line of said Lot 5, 402.2 feet, plus or minus, from Louisiana Highway No. 18, formerly Louisiana Highway No. 30, and extends thence in a southerly direction a distance of 125 feet; said lot being forty-six and forty-two one-hundredths (46.42') feet in width at the point of beginning, which, according to a plat of survey by E.M. Collier, Surveyor, dated May 27, 1963, copy of which is annexed to the act which is registered in COB 575, folio 325, as Instrument No. 265648, begins at a point located a distance of two hundred seventy-seven and two-tenths feet (227.2') from the River Road, or Louisiana Highway No. 18; has a width facing the direction of said River Road of forty-six and eight one-hundredths feet (46.08'), runs in depth between equal lines to the southwest, or towards the woods, a distance of one hundred twenty-five feet (125'), has a width in the rear of forty-five and eighty-five one-hundredths feet (45.85'), bounded on the northeast, or in the direction of said River Road, by the property of Lucien Robert, or assigns, on the west or upstream direction, by the property of Ejar Robert, or assigns, and on the east, or downstream direction, by the property of Jean Lewis Pacquet, et al., or assigns.

The above described property is also shown as LOT B-2 on the plat of survey dated August 5, 1987 by R.P. Bernard, Registered Land Surveyor, copy of which is attached to the act of sale dated February 4, 1988 by Edith Bethancourt Robert, et al., to Myra Robert Nicholas, wife of and Larry Luke Nicholas, which is registered in COB 1898, folio 155, as Instrument NO. 88-07152; according to said plat, the above-described property has the same location and dimensions, except that the northerly boundary is shown as 46.78 feet and the southerly boundary is shown as 46.42 feet.

TRACT 20

A CERTAIN LOT OR PORTION OF GROUND, together with all the buildings and improvements thereon, which are situated in the Parish of Jefferson, State of Louisiana, being a portion of the lower half of Lot 5 of the Pacquet Tract situated in Section 2, T-13-S, R-22-E, said lot commences on the lower line of said Lot 5, 402.2 feet, plus or minus, from Louisiana Highway No. 18, formerly Louisiana Highway No. 30, and extends thence in a southerly direction a distance of 125 feet; said lot being forty-six and forty-two one-hundredths (46.42') feet in width at the point of beginning.

The point of beginning and the northerly boundary of the above-described property are shown on a plat of survey prepared by E.M. Collier, Surveyor, dated February 5, 1954, which is annexed to the act dated September 16, 1955, which is registered in COB 390, folio 290, under Entry No. 66034.

The above described property is referred to as LOT B-3 on plat of survey dated August 5, 1987 by R.P. Bernard, Registered Land Surveyor, of R.P. Bernard, Inc., Boutte, Louisiana, which is annexed to the act of sale dated February 4, 1988 by Edith Bethancourt Robert, et al., to Myra Robert Nicholas, wife of and Larry Luke Nicholas, which is registered in COB 1[illegible]3, folio 155, and is filed for record as Instrument No. 88-07152.

It appears from the act registered in COB 193, folio 198 that "Lot 5" mentioned above is the parcel designated "H.P. NO. 5" on the sketch annexed to an act of partition dated June 28, 1853, before C.C. Porter, N.P.

TRACT 21

ONE CERTAIN LOT OR PARCEL OF GROUND, together with all the buildings and improvements thereon, which are situated in the Parish of Jefferson, State of Louisiana, in that part thereof known as **FORTIER HEIGHTS**, a subdivision certified correct in accordance with a plan of subdivision made by Adloe Orr, Jr., C.E., under date of November 16, 1953, and duly approved by the Police Jury of Jefferson Parish on December 9, 1953, and registered in the Parish of Jefferson in COB 353, folio 439; said lot is designated by the **NUMBER 22**, and is in the square bounded by Second Street, Lucille Avenue, Third Street, and the property belonging, now or formerly, to Ann Brown, et al.; said lot measures according to said survey as follows:

Lot No. 22 measures 60 feet front on Lucille Avenue, the same width in the rear, by a depth of 112.33 feet on the line separating it from Lot No. 20, and a depth of 112.18 feet on the line dividing it from Lot No. 24; said Lot No. 22 commences at a distance of 420 feet from the corner of Second Street and Lucille Avenue.

Improvements thereon bear Municipal No. 234 Fortier Heights Avenue.

TRACT 22

A CERTAIN LOT OF GROUND, together with all the buildings and improvements thereon, which are situated in the Parish of Jefferson, Louisiana, on the right bank of the Mississippi River, at about 18 miles above the City of New Orleans, being a portion of the lower one-half of the tract designated as "H.P. No. 5" on a sketch annexed to an act passed before C.C. Porter, late Notary in the Parish of Jefferson, dated June 28, 1853, being an act of partition between

Jean Lewis Pacquet and others. According to the plat of survey dated May 27, 1963, by E.M. Collier, which is attached to the act of sale dated May 22, 1963 by Lucien Robert to Marjory Robert, wife of and Jimmy Robert, which act is registered in COB 575, folio 325, as Instrument No. 265648, the subject lot is situated in Section 2, Township 13 South, Range 22 East; is bounded to the east by the tract designated as "U.P. No. 4"; extends 277.2 feet, along the boundary line between tracts "H.P. No. 5" and "U.P. No. 4", from Louisiana Highway No. 18 (formerly No. 30), River Road, to the corner of its easterly and southerly boundaries; and measures forty-six and eight one-hundredths feet along its southerly boundary.

The above described property is shown as LOT B-1 on the plat of survey dated August 5, 1987 by R.P. Bernard, Registered Land Surveyor, a copy of which is annexed to the act of sale dated February 4, 1988 by Edith Bethancourt Robert, et al., to Myra Robert Nicholas, et al., which is registered in COB 1898, folio 155, as Instrument No. 88-07152, according to which the above-described property has the same location and measurements as state above, except that such plat of survey shows that the southerly boundary measures 45.85 feet according to Collier, 46.78 feet actual.

TRACT 23

THAT PORTION OF GROUND, together with all the buildings and improvements thereon, which is situated in the Parish of Jefferson, State of Louisiana, in Section 3, Township 13 South, Range 22 East, Southeast Land District of Louisiana, West of the Mississippi River, which is designated as LOT Y-2 on the plat of survey and plan of resubdivision dated April 2, 1987 by Gerald Swanson, Inc., which was approved by Ordinance No. 17281, which ordinance is registered in COB 1779, folio 70, as Entry No. 87-38758. And in accordance with plat, Lot Y-2 is shown to be bounded by Louisiana Highway 18, the property now or formerly belonging to Joseph Pettit, Fortier Heights Subdivision, and Fortier Heights Road (Lucille Avenue), commences 71.11 feet from the corner of Louisiana Highway 18 and Fortier Heights Road, and measures thence 48.53 feet along Louisiana Highway 18, 426.80 feet along the sideline bounded by the property now or formerly belonging to Joseph Pettit, 48.09 feet in the rear and 426.26 feet along its opposite sideline.

Copy of said plat is attached to the act dated July 31, 1987, which is registered in COB 1780, folio 298, under Entry No. 87-39127.

TRACT 24

A CERTAIN PLANTATION, together with all the buildings and improvements thereon, composed of several tracts of land on the right descending bank of the Mississippi River, about 19 miles from the City of New Orleans, described as follows:

(a) A CERTAIN TRACT OF LAND measuring 15 arpents, 110 feet front on the Mississippi River, by a depth of 40 arpents, between side lines which close in such a manner that said plantation has on the rear line 11 arpents, 85 feet, more or less.

(b) A CERTAIN TRACT OF LAND measuring 4 arpents front on the Mississippi River, by a depth of 40 arpents between lines converging three degrees, twenty-eight minutes, which reduce the width of said land in the rear to one arpent and 104 feet, six inches.

(c) TWO CERTAIN LOTS OF GROUND, designated by the NOS. 19 AND 20, according to a plan drawn by S. Surgi, dated February 21, 1837, and also designated by the same numbers according to survey by William H. Williams, Surveyor, dated November 24, 1854, annexed to act of sale before Charles T. Soniat, late Notary, on December 16, 1887; said lots adjoin each other and measure each, according to said plan and sketch, one arpent front on the Mississippi River, by a depth of 40 arpents between lines closing in the rear and measuring one-half arpent on each rear line; which said lots are bounded above by Lot No. 18 and below by Lot No. 21.

(d) A CERTAIN TRACT OF LAND designated as one arpent front on the Mississippi River, by 40 arpents in depth, closing to one-half arpent, in the rear, bounded above by lands of Amedee Fortier and below by the lands formerly belonging to A.D. Gustine.

(e) A CERTAIN TRACT OF LAND measuring 3-1/4 arpents front on the Mississippi River, by a depth of 9-1/3 arpents, between lines closing to a point; which tract contains about 19 superficial arpents and is bounded above by A.H. Johness (tract above described) and below by Union Plantation.

Said plantation less lot sold to Jefferson Parish on July 19, 1905, COB 24, folio 629 and less lot sold to Toney Mumphrey on December 24, 1921, COB 53, folio 458, may be more particularly described in one tract, viz:

A CERTAIN PLANTATION, together with all the buildings and improvements thereon, located in part of Section 3, Township 13 South, Range 22 East, Southeastern District of Louisiana, West of the Mississippi River, Parish of Jefferson, and approximately eight miles upstream from the Huey P. Long Mississippi River Bridge and particularly described as follows:

Beginning at an iron pipe in concrete located at the southeast corner of the plantation which point is on the 40 arpent line and is South 68 degrees, 15 minutes West of and 214.9 feet from an old established iron axle at the corner common to Sections 3, 4 and 34; thence South 68 degrees, 15 minutes West 2802.70 feet along the 40 arpent line also the north line of Section 34, to an iron pipe in concrete at the southwest corner of the plantation and which point is North 68 degrees, 15 minutes East 561.6 feet from the southwest corner of the said Section 3; thence

North 3 degrees, 31 minutes West 7558.73 feet along the east line of the property now or formerly belonging to Pierre Petit, to an iron pipe in concrete at the north end of a drainage ditch and on the south right of way line of a black top highway (Louisiana State Highway No. 30) running from Luling to New Orleans; thence along the said south highway right of way line the following six (6) courses and distances:

(1) North 71 degrees, 16 minutes East 253.38 feet to an angle;

(2) Thence North 65 degrees, 20 minutes East 412.92 feet to an angle;

(3) Thence North 75 degrees, 55 minutes East 1602.52 feet to an angle;

(4) Thence North 81 degrees, 43 minutes East 713.73 feet to an angle;

(5) Thence South 82 degrees, 41 minutes East 387.88 feet to an angle;

(6) Thence North 84 degrees, 37 minutes East 956.96 feet to an iron rod in concrete on the East line of the plantation, which point is 624 feet from the eastern side line of Section 3 measured along a continuation of the last mentioned course;

thence South 9 degrees, 02 minutes West along the east line of the property, also the west line of property now or formerly belonging to Toney Mumphrey 6896.70 feet to an iron pipe in concrete at angle in said line and thence South 7 degrees, 31 minutes, 30 seconds West 485.86 feet to an iron pipe in concrete at southeast corner of the plantation, the point of beginning.

Together with all the land lying north of the south meandering line of the said Highway No. 30, above described, to the Mississippi River, between the northerly extensions of the east and west boundary lines of the plantation as so described, and full right to alluvion, batture and accretion thereto belonging. Containing 585.4 acres, more or less, south of said highway.

All in accordance with survey by Hotard & Webb, Civil Engineers, registered in Louisiana, map of which, dated April 23, 1952.

TRACT 25

(a) A CERTAIN PORTION OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, on the right descending bank of the Mississippi River, which portion of ground is fully shown on a certificate of survey made by Elbert G. Sandoz, C.E. & S., dated March 16, 1927, a blue print of which is annexed to an act passed before Emile Pomes, N.P., on August 12, 1930, wherein Leo Mumphrey purchased said portion of ground and according to which survey said portion of

ground is designated by the LETTER "Y" and measures 207.5 feet front on the Public Road by a depth of 7320.7 feet on the side line dividing it from Lot "Z" and 7373.3 feet on the other depth line dividing it from Lot "X". Said depth lines meet in the rear thereof at a point designated by the Letter "B" on a certificate of survey made by Elbert G. Sandoz, C.E. & S., dated December 17, 1921, which is annexed to an act passed before Gus A. Llambias, N.P., on December 24, 1921, said point likewise being designated by the Letter "B" on said certificate of survey dated March 16, 1927. Said Lot "Y" is comprised within the figure B-F-G and contains 20 arpents, more or less.

(b) A CERTAIN PIECE OR PORTION OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, on the right descending bank of the Mississippi River and designated by the LETTER "Z" on a plan of Elbert G. Sandoz, C.E. & S., dated March 16, 1927, which is the same plan referred to hereinabove as being attached to an act before Emile Pomes, N.P., on August 12, 1930. According to said plan said Lot "Z" measures 209.4 feet front on the Public Road, adjoining the Levee, with a width in the rear of 214.9 feet by a depth of 7320.7 feet along the line separating it from Lot "Y" and by a depth of 7380.7 feet along the line separating it from Lot "A", said Lot "Z" being comprised within the figure B-C-D-E-F, and containing 40 arpents, more or less.

(c) A CERTAIN PIECE OR PORTION OF GROUND, together with all the buildings and improvements thereon, situated in the Parish of Jefferson, State of Louisiana, on the right descending bank of the Mississippi River and designated by the LETTER "X" on a blue print of survey made by Elbert G. Sandoz, C.E. & S., dated March 16, 1927, annexed to an act passed before Emile Pomes, N.P., on August 12, 1930. According to said survey said portion of ground designated by the Letter "X" measures 207.1 feet front on the Public Road adjoining the Levee by a depth of 7373.3 feet on the side line dividing said Lot "X" from Lot "Y" and 7431.3 feet on the other side depth line. Said depth lines meet in the rear thereof at a point designated by the Letter "B", which Lot "X" forms part of the original lot designated by the Letter "B" on a certificate of survey made by Elbert G. Sandoz, C.E. & S., dated December 17, 1921, which is annexed to an act passed before Gus A. Llambias, N.P., on December 24, 1921. Said Lot "X" is comprised within the figure A-B-G on said blue print of survey made by Elbert G. Sandoz, C.E. & S., dated March 16, 1927, and contains twenty arpents, more or less.

Said property may be more particularly described in one tract, viz:

A CERTAIN TRACT OF LAND, together with all the buildings and improvements thereon, located in part of Section 3, Township 13 South, Range 22 East, Southeastern District of Louisiana, West of the Mississippi River, Parish of Jefferson and approximately eight miles upstream from the Huey P. Long Mississippi River Bridge, and particularly described as follows:

Beginning at an old established iron axle at the Southeast Corner of Section 3, Township 13 South, Range 22 East (being the corner common to Sections 3, 4 and 34); thence South 68 degrees, 15 minutes West 214.9 feet to an iron pipe in concrete on the section line dividing Section 3 from Section 34; thence North 7 degrees, 31 minutes, 30 seconds East along the eastern side line of property of American Cyanamid Company a distance of 485.86 feet to an iron pipe in concrete; thence North 9 degrees, 02 minutes East along the eastern side line of property of American Cyanamid Company a distance of 6896.70 feet to an iron rod in concrete on the south right of way line of Louisiana State Highway No. 30; thence North 85 degrees, 13 minutes East along said South Highway right of way line a distance of 624 feet to a six inch square post on the eastern side line of Section 3; thence South 12 degrees, 11 minutes West along the eastern side line of Section 3 a distance of 7432.74 feet to the old iron axle located at the corner common to Sections 3, 4 and 34, the point of beginning.

Together with all the land lying north of the south meandering line of the said Highway No. 30, above described, to the Mississippi River, between the northerly extensions of the east and west boundary lines of the plantation as so described, and full right to alluvion, batture and accretion thereto belonging. Containing 67.60 acres, more or less, south of said Highway.

All in accordance with survey by Hotard & Webb, Surveying Engineers, registered in Louisiana, map of which dated July 24, 1952.

94-02234

CERTIFICATE

I, A. C. Brennan, Secretary of AMERICAN CYANAMID COMPANY, a Maine corporation (the "Company"), hereby certify that the following is a complete and accurate copy of a resolution duly adopted at a meeting of the Board of Directors of the Company at a regular meeting held on August 17, 1993 at which meeting a quorum was present and acting throughout, and that the same has not been rescinded or further amended and is now in full force and effect:

> RESOLVED: That authorization be, and it hereby is, granted to effect the spin-off of the Chemicals and Plant Food businesses of the Company, including (i) the contribution of substantially all the assets and liabilities of the Company's Chemical and Plant Food businesses to a corporation to be formed under the name of Cytec Industries Inc. ("Cytec"), substantially on the terms presented to this meeting; and (ii) implementation of the steps (including filings with governmental agencies) deemed by the appropriate officers and employees of the Company to be necessary or appropriate to separate Cytec from the Company.

I FURTHER CERTIFY that the terms presented to the Board included a list of real property to be transferred to Cytec in conjunction with the spin-off and the Fortier, Louisianna facility is one of the parcels of real property which is to be transferred to Cytec.

I FURTHER CERTIFY that Cytec Industries Inc., will be wholly-owned subsidiary of American Cyanamid Company as of the date of transfer.

I FURTHER CERTIFY that the following is a complete and accurate list of the officers of the Company which is in full force and effect as of date of this certificate:

Chairman of the Board & Chief Executive Officer	A. J. Costello
President	F. V. AtLee
Executive Vice President	D. D. Fry
Group Vice President	D. R. Bethune
Group Vice President	D. Lilley
Group Vice President	W. J. Murray
Vice President and Chief Financial Officer	T. D. Martin
Vice President and General Counsel	J. S. McAuliffe
Vice President	L. berger
Vice President	W. A. Stiller
Vice President	P. W. Wood
Controller	R. D. Reisman
Treasurer	R. T. Ritter
Secretary	A. C. Brennan
Assistant Secretary	G. C. Boothe, Jr.
Assistant Secretary	A. M. Breitman
Assistant Secretary	E. F. Jackman
Assistant Secretary	J. S. McAuliffe
Assistant Treasurer	J. F. Nash
Assistant Treasurer	J. R. Vidal

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of this Company this 15th day of December, 1993.

A. C. Brennan
A. C. Brennan
Secretary

CERTOFF

LAC 33:V.Chapter 5

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 5. Permit Application Contents

Subchapter A. General Requirements for Permit Applications

§501. Permit Application

A. Any person who is required to have a permit (including new applicants and permittees with expiring permits) shall complete, sign, and submit a permit application to the administrative authority as described in this Section and LAC 33:V.4301, 4303, and 4305. Persons currently authorized with interim status shall apply for permits when required by the administrative authority. Persons covered by RCRA permits by rule (LAC 33:V.305.D) need not apply. Procedures for applications, issuance, and administration of emergency permits are found exclusively in LAC 33:V.701 and 703. Procedures for application, issuance, and administration of research, development, and demonstration permits are found exclusively in LAC 33:V.329.

Response: Cytec is herein submitting a completed and signed permit application to the administrative authority.

B. When a facility or activity is not owned and operated by one person, it is the operator's duty to obtain a permit. The owner must also sign the permit application.

Response: Cytec is owned and operated by one company. This permit application is being signed in accordance with LAC 33:V.507.

C. Existing Hazardous Waste Management Facilities and Interim Status Qualifications

1. Owners and operators of existing hazardous waste management facilities or of hazardous waste management facilities in existence on the effective date of statutory or regulatory amendments under the Act that render the facility subject to the requirement to have a RCRA permit must submit Part I of their permit application no later than:

   a. six months after the date of publication of regulations which first require them to comply with LAC 33:V.Chapters 11, 15, 25, 30, 41 or 43; or

   b. thirty days after the date they first become subject to the standards set forth in LAC 33:V.Chapters 11, 15, 25, 30, 41, or 43, whichever first occurs.

Response: Cytec (formerly American Cyanamid Company) as operator of existing hazardous waste management facilities submitted the initial Part I of the permit application on November 14, 1980.

2. At any time after promulgation of Phase II the owner and operator of an existing hazardous waste management facility may be required to submit Part II of their permit application. The administrative authority may require submission of Part II. Any owner or operator shall be allowed at least 120

days from the date of request to submit Part II of the application. Any owner or operator of an existing hazardous waste management facility may voluntarily submit Part II of the application at any time. Notwithstanding the above, any owner or operator of an existing hazardous waste management facility must submit a Part II permit application in accordance with the dates specified in LAC 33:V.4305. Any owner or operator of a land disposal facility in existence on the effective date of statutory or regulatory amendments under the Act that render the facility subject to the requirement to have a RCRA permit must submit a Part II application in accordance with the dates specified in LAC 33:V.4305.

Response: Cytec (formerly American Cyanamid Company) as the operator of existing hazardous waste management facilities submitted the initial Part B/Part II permit application to EPA on August 10, 1983.

LDEQ requested submittal of the Part II on August 15, 1984. Cytec (formerly American Cyanamid Company) submitted Part II of the hazardous waste permit application to LDEQ on February 11, 1985.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 16:220 (March 1990), LR 20:1000 (September 1994), LR 20:1109 (October 1994).

§503. Completeness

The administrative authority shall not issue a permit before receiving a complete application for a permit except for permits by rule (LAC 33:V.305.D) or emergency permits (LAC 33:V.701). An application for a permit is complete when the administrative authority receives an application form and any supplemental information which are completed to his or her satisfaction. The administrative authority may deny a permit for the active life of a hazardous waste management facility or TSD unit before receiving a complete application for the permit. An application for a permit is complete notwithstanding the failure of the owner or operator to submit the exposure information described in this Section.

Response: Cytec is herein submitting this hazardous waste permit application to the administrative authority with the intention that all required information is complete.

A. Any Part II permit application submitted by an owner or operator of a facility that stores, treats, or disposes of hazardous waste in a surface impoundment or a landfill must be accompanied by information, reasonably ascertainable by the owner or operator, on the potential for the public to be exposed to hazardous wastes or hazardous constituents through releases related to the unit. At a minimum, such information must address:

1. reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit;

2. the potential pathways of human exposure to hazardous wastes or constituents resulting from the releases described under LAC 33:V.503.A.1; and

3. the potential magnitude and nature of the human exposure resulting from such releases.

B. By August 8, 1985, owners and operators of a landfill or a surface impoundment who have already submitted a Part II application must submit the exposure information required in LAC 33:V.503.A.

Response: The requirements of LAC 33.V.503.A and B. do not apply to Cytec because Cytec does not currently store, treat, or dispose of hazardous waste in surface impoundments or landfills.

Cytec previously operated five (5) surface impoundments, identified as:

-Impoundment 1;
-Impoundment 3;
-North Waste Water Column Bottoms Back Wash Pit;
-South Waste Water Column Bottoms Back Wash Pit; and
-Deep Well Back Wash Pit

These five (5) surface impoundments have been closed and LDEQ has accepted the closure certifications. A copy of LDEQ's letters documenting acceptance of closure dated June 7, 1989, January 15, 1991 and January 30, 1991 are included in Appendix C.

Cytec has completed eight (8) years of post closure monitoring of Surface Impoundments 1 and 3. LDEQ issued Cytec a Post-Closure permit to address the post closure core requirements.

The North Waste Water Column Bottoms Back Wash Pit, South Waste Water Column Bottoms Back Wash Pit and Deep Well Back Wash Pit were "clean-closed" and are no longer subject to regulation under RCRA. However, groundwater water monitoring is being performed in the area of these three (3) closed surface impoundments under a Groundwater Monitoring Agreement between Cytec and LDEQ. A copy of this agreement in included in Appendix D.

Cytec (formerly American Cyanamid Company) submitted an Exposure Information Report in compliance with LAC 33:V.503.A. to address these surface impoundments as part of the previous hazardous waste permit application. Since the surface impoundments have been closed, resubmittal of the Exposure Information Report is not applicable.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 16:220 (March 1990), LR 16:614 (July 1990), LR 17:658 (July 1991), LR 20:1000 (September 1994), LR 20:1109 (October 1994).

§505. Recordkeeping

Applicants shall keep records of all data used to complete permit applications and of any supplemental information submitted under this Chapter, as required in LAC 33:V.309.J.

Response: Cytec will keep records of all data used to complete permit applications and of any supplemental information submitted under this Chapter, as required in LAC 33:V.309.J.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

Subchapter B. Signatories to Permit Applications and Reports, Changes of Authorizations, and Certifications

§507. Applications

All permit applications shall be signed as follows:

A. for a corporation: by a responsible corporate officer; for the purpose of this Section, a responsible corporate officer means:

1. a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or

2. the manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

Response: Cytec is an independent, public company. This hazardous waste permit application is signed by Mr. Jaswant S. Gill, Director - Manufacturing, Building Blacks and Plant Manager at the Fortier Manufacturing Complex, which employs more than 250 persons and has been delegated the authority to sign documents in accordance with corporate procedures as provided in LAC 33:V.507.A.2.

B. for a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

Response: The requirements of LAC 33:V.507.B. do not apply to Cytec because Cytec is not a partnership or sole proprietorship.

C. for a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official.

Response: The requirements of LAC 33:V.507.C. do not apply to Cytec because Cytec is not a municipality, state, federal, or other public agency.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 12:319 (May 1986).

§509. Reports

All reports required by permits, and other information requested by the administrative authority shall be signed by a person described in LAC 33:V.507, or by a duly authorized representative of that person. A person is a duly authorized representative only if: the authorization is made in writing by a person described in LAC 33:V.507; and the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position). The written authorization is submitted to the administrative authority.

Response: All reports required by permits, and other information requested by the administrative authority, will be signed by a person described in LAC 33:V.507.A. If Cytec chooses to delegate to a duly authorized representative of that person, a copy of the written authorization will be submitted to the administrative authority, as required.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 18:1256 (November 1992).

§511. Changes in Authorization

If an authorization under LAC 33:V.509 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of LAC 33:V.509 must be submitted to the administrative authority prior to or together with any reports, information, or applications to be signed by an authorized representative.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

§513. Certification

A. Any person signing a document under LAC 33:V.507 or 509 shall make the following certification: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Response: Cytec acknowledges the above citation. The certification is included in this submittal.

B. Certification of an owner who is not the operator: "I certify that I understand that this application is

submitted for the purpose of obtaining a permit to operate a hazardous waste management facility on the property as described. As owner of the property/facility, I understand fully that the facility operator and I are jointly and severally responsible for compliance with both LAC 33:V.Subpart 1 and any permit issued pursuant to those regulations." For owners of land disposal facilities, add: "I further understand that I am responsible for providing the notice in the deed to the property required by LAC 33:V.3525."

Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.513.B. do not apply to Cytec, because Cytec is currently the owner and operator.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 18:1256 (November 1992).

Subchapter C. Permit Applications: Parts I and II

§515. Part I Information Requirements

A. All applicants for TSD permits shall provide the following information to the administrative authority using the application form provided. Other formatting requirements may be specified by the administrative authority.

1. date of application;
2. EPA identification number;
3. a brief description of the nature of the business;
4. the activities conducted by the applicant which require it to obtain a TSD permit;
5. name, mailing address, and location of the facility for which the application is submitted;
6. the latitude and longitude of the facility and a legal description of the site;
7. up to four SIC codes which best reflect the principal products or services provided by the facility;
8. an indication of whether the facility is new or existing and whether it is a first or revised application;
9. the operator's name, address, telephone number, ownership status, and status as federal, state, private, public, or other entity;
10. owner's name, address, and phone number if different from operator's;
11. contact: name of individual to be contacted concerning hazardous waste management;
12. telephone number of contact;
13. whether the facility is located on Indian lands;
14. a listing of all permits or construction approvals received or applied for under any of the following programs:
    a. hazardous waste management program;
    b. Underground Injection Control (UIC) program;
    c. National Pollution Discharge Elimination System (NPDES) program;
    d. Prevention of Significant Deterioration (PSD) program under the Federal Clean Air Act;
    e. nonattainment program under the Clean Air Act;
    f. National Emission Standards for Hazardous Air Pollutants (NESHAP) preconstruction approval under the Clean Air Act;
    g. ocean dumping permits under the Marine Protection Research and Sanctuaries Act;
    h. dredge or fill permits under section 404 of the federal Clean Water Act (CWA); or

i. other relevant environmental permits;

15. a topographic map (or other map if a topographic map is unavailable) extending two miles beyond the property boundaries of the facility indicating the following; each hazardous waste treatment, storage, and disposal facility; each well where fluids from the facility are injected underground; and those wells, springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant;
16. for existing facilities, a scale drawing of the facility showing the location of all past, present, and future treatment, storage, and disposal areas;
17. for existing facilities, photographs of the facility clearly delineating all existing structures; existing treatment, storage, and disposal areas; and sites of future treatment, storage, and disposal areas;
18. a description of the processes to be used for treating, storing, and disposing of hazardous waste, and the design capacity of these items;
19. a specification of the hazardous wastes listed or designated to be treated, stored, or disposed of at the facility; an estimate of the quantity of such wastes to be treated, stored, or disposed of annually; and a general description of the processes to be used for such wastes;
20. status: ownership status of existing site or land for proposed site (federal, state, private, public, other);
21. operation status;
22. list other company hazardous waste operations in Louisiana (permitted or non-permitted and current or abandoned);
23. list other states in which hazardous waste operations are or have been conducted;
24. zoning of site, if applicable;
25. for hazardous debris: a description of the debris category(ies) and contaminant category(ies) to be treated, stored, or disposed of at the facility; and
26. comments.

Response: Cytec is providing the requested information using the EPA RCRA Part A Permit Application Form Revised 10/01/96 as required by LDEQ. A copy of the Part A is included in this submittal. In addition, Cytec is providing a revised Louisiana Notification of Hazardous Waste Activity (Form HW-1).

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 21:266 (March 1995).

Subchapter D. Part II General Permit Information Requirements

§516. Information Requirements for Solid Waste Management Units

A. The following information is required for each solid waste management unit at a facility seeking a permit:

1. the location of the unit on the topographic map required under LAC 33:V.517.B;

Response: The location of each Solid Waste Management Unit (SWMU) at the Fortier Plant is identified on the topographic map in Appendix E.

2. designation of type of unit;
3. general dimensions and structural description (supply any available drawings);
4. when the unit was operated; and
5. specification of all waste codes for all hazardous wastes that have been managed at the unit.

Response: A table identifying the type of unit, general dimensions, dates of operation, and waste description is included in Appendix F.

6. details of all ancillary equipment including tanks storing hazardous waste in less than 90-day service and pipes carrying hazardous waste to the injection well(s) must meet the requirements of LAC 33:V.Chapter 19. A certification by an independent Louisiana Registered Professional Engineer must be provided attesting to the adequacy of pipes, valves, and pumps to handle hazardous waste under pressure and to the adequacy of secondary containment provided to meet the requirements of LAC 33:V.Subpart 1.

Response: The hazardous waste tank system ancillary equipment complies with the applicable regulations in LAC 33:V.Chapter 19. In accordance with LAC 33:V.1907.F., the ancillary equipment is either located within secondary containment, exempt as aboveground equipment with welded flanges, joints and connections subject to daily inspection, or included in a secondary containment variance granted by LDEQ on November 20, 1991 in accordance with LAC 33:V.1907.G.2. Transmittals between LDEQ and Cytec (formerly American Cyanamid Company) dated January 15, 1992, November 20, 1991, and November 18, 1988 regarding the secondary containment variance are included in Appendix G.

Cytec does not routinely manage hazardous waste in tanks for a period of less than 90 days. Periodically, Cytec uses less than 90 days tanks and/or containers to facilitate equipment cleanout. If Cytec opts to begin managing hazardous waste in tanks for a period of less than 90 days, Cytec will comply with all applicable regulations.

In compliance with LAC 33:V.1907.I.3., Cytec performs an annual integrity assessment certified by an independent Louisiana Registered Professional Engineer for hazardous waste tank system ancillary equipment not equipped with secondary containment. A copy of the assessments are maintained on file in accordance with LAC 33:V.1907.I.4. As an example, Cytec has included a copy of the most recent integrity assessment in Appendix H.

The certification by an independent Louisiana Registered Professional Engineer documenting the adequacy of the secondary containment is included in Appendix I.

B. The owner or operator of any facility containing one or more solid waste management units must submit all available information pertaining to any known release of hazardous wastes or hazardous constituents from such unit or units.

Response: A RCRA Facility Assessment (RFA) was performed on behalf of EPA in

August 1986 of the Fortier Plant. The Hazardous and Solid Waste Amendments (HSWA) portion of the current hazardous waste operating permit (LAD 008175390-OP-1) became effective on January 18, 1992. In Permit Provision VIII.C.1.b., the Plant Landfill was identified as a Solid Waste Management Unit that requires a RCRA Facility Investigation (RFI) to determine if any releases of hazardous waste or constituents to the surrounding environmental media may have occurred. The Draft RFI report was submitted to LDEQ on June 30, 1995. LDEQ issued a response on November 18, 1996 stating that the RFI Task II and IV Report of the Plant Landfill SWMU appeared to be adequate subject to conditions specified in the response. Cytec submitted a Phase II Work Plan addressing the additional monitoring requirements to LDEQ on January 16, 1997 and received LDEQ approval on April 24, 1997. The initial field work as described in this plan is currently underway and progress reports are submitted to the LDEQ as required.

As part of Cytec's current groundwater monitoring program, Cytec continued semi-annual detection monitoring during 1997, with quarterly analyses of Monitoring Well (MW) Nos. 23, 27 and 30. These three (3) monitoring wells had shown concentration levels of total cyanides consistently above the laboratory's detection limit of 0.01 ppm. The monitoring of MW-23, 27 and 30 was initially implemented by Cytec in 1987 in accordance with a LDEQ directive. Semi-annual results were submitted on October 4, 1996 and December 26, 1996, supplemented by quarterly reports submitted on May 13, 1996 and October 30, 1996.

These issues are now being addressed through the Post Closure permit and Groundwater Monitoring Agreement issued on December 4, 1997.

Cytec is not aware of any other releases of hazardous waste or hazardous constituents from any other solid waste management units to date.

C. The owner/operator must conduct and provide the results of sampling and analysis of groundwater, land surface and/or subsurface strata, surface water, and/or air, which may include the installation of wells, if the administrative authority ascertains it is necessary to complete a RCRA Facility Assessment that 33:V.1 8 will determine whether a more complete investigation is necessary. If the owner/operator has an EPA approved RCRA Facility Investigation, the results of this investigation may be provided to the administrative authority.

Response: A HSWA Completeness Review and Preliminary RCRA Facility Assessment (RFA) of the Fortier Plant was performed under the direction of the EPA in August, 1986. LDEQ requested additional information regarding the HSWA Response on November 25, 1986. Cytec (formerly American Cyanamid Company) submitted a Response to Evaluation of HSWA Response, Request for Additional Information on February 27, 1987.

EPA issued Cytec (formerly American Cyanamid Company) a HWSA permit effective on January 18, 1992. A RCRA Facility Investigation (RFI) Preliminary Report was submitted to EPA and LDEQ on March 16, 1992. An RFI Work Plan was submitted to EPA and LDEQ on May, 1992. EPA issued a Notice of Deficiency (NOD) on July 27, 1992 for the RFI Work Plan. An Amended RFI Preliminary Report and Amended RFI Work Plan were submitted to EPA and LDEQ in September, 1992. EPA approved

the amended RFI Work Plan with modifications on February 23, 1994. In response to an EPA requested modification, Cytec submitted an RFI Source Characterization Report to EPA and LDEQ on May 27, 1994. EPA approved the Amended RFI Work Plan Addendum Source Characterization Report on August 5, 1994. An amended RFI schedule was submitted to EPA and LDEQ on August 19, 1994. EPA approved the submittal on October 11, 1994. The results of the Phase II Topographic and Geophysical Survey were submitted to EPA and LDEQ on October 24, 1994.

The Draft RFI Task III and IV Report presenting the results of the field investigation was submitted to EPA and LDEQ on June 30, 1995. LDEQ issued a response on November 18, 1996 stating that the Draft RFI Task III and IV Report of the Plant Landfill SWMU appeared to be adequate subject to conditions specified in the response. Cytec submitted a Phase II Work Plan addressing the additional monitoring requirements to LDEQ on January 16, 1997 and received LDEQ approval on April 24, 1997.

The initial field work as described in this plan is currently underway and progress reports are submitted to the LDEQ as required.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991).

§517. Part II Information Requirements (the Formal Permit Application)

The formal permit application information requirements presented in this Section reflect the standards promulgated in LAC 33:V.Subpart 1. These information requirements are necessary in order to determine compliance with all standards. Responses and exhibits shall be numbered sequentially according to the technical standards. The permit application must describe how the facility will comply with each of the sections of LAC 33:V.Chapters 15-37 and 41. Information required in the formal permit application shall be submitted to the administrative authority and signed in accordance with requirements in LAC 33:V.509. The description must include appropriate design information (calculations, drawings, specifications, data, etc.) and administrative details (plans, flow charts, decision trees, manpower projections, operating instructions, etc.) to permit the administrative authority to determine the adequacy of the hazardous waste permit application. Certain technical data, such as design drawings, specifications, and engineering studies, shall be certified by a registered professional engineer. If a section does not apply, the permit application must state it does not apply and why it does not apply. This information is to be submitted using the same numbering system and in the same order used in these regulations:

Response: Cytec acknowledges the above citation.

A. a general description of the facility including hours of operation/day and days/week;

Response: The Fortier Manufacturing Complex of Cytec Industries Inc. is physically located in an unincorporated area near Waggaman, Jefferson Parish, Louisiana on the west bank of the Mississippi River near river mile marker 114. The mailing address is Cytec Industries Inc. - Fortier, 10800 River Road, Westwego, Louisiana 70094.

The Fortier Plant employs approximately 650 people and operates 24 hours per day,

seven (7) days per week, with four (4) rotating shifts of twelve (12) hours each. The Fortier Plant is a chemical manufacturing complex currently producing acetonitrile, acrylamide, acrylonitrile, aminonitrile, ammonia, melamine, methanol, methyl methacrylate, and sulfuric acid.

Hazardous wastes generated at the Fortier Plant are primarily process wastes generated from continuous processes and production cycles. This includes listed hazardous waste streams from the production of acrylonitrile, off-specification products, and waste generated during hazardous waste tank clean outs. In addition, the Fortier Plant has a segregated storm water collection system. This allows storm water from certain process areas to be collected, treated, and disposed of through the hazardous waste system, commonly referred to as the Miscellaneous Effluent Treatment/Tank (MET). The hazardous waste management units generally utilized at the Fortier Plant are tanks, containers, deepwells, and associated ancillary equipment.

B. a topographic map or maps showing a distance of 1,000 feet around the facility at a scale of 2.5 centimeters (1 inch) equal to not more than 61.0 meters (200 feet); contours must be shown on the map. The contour interval must be sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operational unit of the facility. The map or maps shall clearly show the following:

Response: A United States Geological Survey (USGS) 7.5 minute series (topographic) map showing a distance of 1,000 feet around the facility is included in Appendix J, Figure 1. Cytec Drawing No. 36-0-32 depicts the location of the hazardous waste management units on a map with a scale of one (1) inch equal to 200 feet. Topographic surface elevation contour lines are also shown on the map at one (1) foot intervals to clearly show the pattern of surface water flow in the vicinity of and from each operational unit of the facility. Cytec Drawing No. 36-0-32 is included in Appendix J, Figure 2.

1. map scale and date;

   Response: The maps include the appropriate scale and revision date.

2. orientation of the map (north arrow);

   Response: The maps include a North arrow by which to orientate the map.

3. 100-year floodplain area;
   [Comment: Owners and operators of all facilities shall provide an identification of whether the facility is located within a 100-year floodplain and a flood hazard map (Corps of Engineers or Department of Housing and Urban development). This identification must indicate the source of data for such determination and include a copy of the relevant Federal Insurance Administration (FIA) flood map, if used. Where maps for the National Flood Insurance Program produced by FIA of the Federal Emergency Management Agency are available, they will normally be determinative of whether a facility is located within or outside of the 100-year floodplain. However, where the FIA map excludes an area (usually areas of the floodplain less than 200 feet in width), these areas must be considered and a determination made as to whether they are in the 100-year floodplain. Where FIA maps are not available for a proposed facility location, the owner or operator must use

equivalent mapping techniques to determine if the facility is within the 100-year floodplain, and if so located, what the 100-year flood elevation would be.]

Response: The Fortier Plant was located outside of the 100-year and the 500-year floodplain according to a letter from the Corps of Engineers dated February 13, 1979 and the Flood Hazard Boundary Map (revised 1976). A copy of these documents is located in Appendix K. At that time, the Fortier Plant area was designated as Zone C. Due to revisions of the National Flood Insurance Program by the Federal Emergency Management Agency, the Zone C designation has been eliminated for any area in Jefferson Parish.

The Fortier Plant process area is now designated as Zone X and Zone AE as shown on the Flood Insurance Rate Map (revised March 23, 1995) in Appendix K. These zones are delineated by the 100-year flood elevation, which is the five (5) foot elevation contour line. The Hazardous Waste Management System Location Map (Cytec Drawing No. 36-0-32) in Appendix J, Figure 2 identifies the location of the five (5) foot contour line in relation to the hazardous waste management units. All of the hazardous waste management units, except Deep Well No. 3, are located in Zone X, i.e. outside the boundaries of the 100-year floodplain. The extreme southern portion of the Fortier Plant process area including Deep Well No. 3 and a small portion of it's associated piping are located in Zone AE, i.e. inside the 100-year floodplain.

In accordance with LAC 33:V.1503.B.3., the units located within the 100-year floodplain have been designed, constructed, operated and maintained to prevent washout of any hazardous waste by a 100-year flood. The well head and the piping are sealed components constructed primarily of carbon steel, which are designed to contain the waste at all times, i.e. watertight. Furthermore, the well head is surrounded by a concrete pad and concrete curbing which provide an increase in elevation over the five (5) foot, 100 year flood elevation. The potential for a washout by a 100-year flood is highly unlikely, if not virtually impossible. The Fortier Plant has experienced 100-year floods within the past ten (10) years with no adverse impact to the hazardous waste units.

4. surface waters including intermittent streams and surface flow through the site and a map of the potentiometric surface for aquifers within 100 feet of lowest elevation of disposal cells, or other facilities containing hazardous waste, from 1,000 feet upstream to 1,000 feet downstream, where practicable. Included should be a general area map and cross sections indicating the extent of freshwater sands, and the degree of isolation from waste sources by confining layers of clay;

Response: The USGS map included in Appendix J, Figure 1 shows surface waters including intermittent streams and surface flow for a distance of at least 1,000 feet upstream and 1,000 feet downstream of the Fortier Plant.

Groundwater potentiometric surface maps for the Fortier Plant are included in Appendix J, Figures 3, 4, 5, 6, and 7.

Maps identifying the location of borings and subsurface profiles from which cross-sections of subsurface conditions were generated for impoundments No. 1 and No. 3 and the Acrylo "Pit Area" are included in Appendix J, Figures 8, 9, 10, 11, 12, and

13. A well log indicating the extent of fresh water sands is included in Appendix J, Figures 14 and 14A.

5. surrounding land uses (residential, commercial, agricultural, recreational, public) such as schools, hospitals, libraries, etc.;
[Comment: A map or aerial photograph showing surrounding land use for the area within two miles of the site is required.]

Response: The USGS map included in Appendix J, Figure 1 identifies the surrounding land uses for a distance extending at lest two (2) miles from the Fortier Plant. The surrounding land uses include residential, commercial, agricultural, recreational, schools, hospitals, and libraries. For additional information, refer to the aerial photograph in Appendix J, Figure 23.

6. legal boundaries of the TSD facility site;

Response: The legal property boundary of the Fortier Plant is identified on the USGS Map in Appendix J, Figure 1 and Figure 22.

7. access control (fences, gates);

Response: The Fortier Plant operating area is enclosed by a fence with gates located at several entrances as shown in Appendix J, Figure 2. Gates readily accessible by the public are either locked closed or manned by security guards.

8. injection and withdrawal wells both on site and off site;
[Comment: A map of all known wells, operating or abandoned, on the site and within two miles of the site perimeter as required in LAC 33:V.515.A.15, including the depth of wells, amount of pumpage, water level depth (annual maximum and minimum), and water analysis from the water well nearest the disposal site is also required.]

Response: Injection wells located on-site and within two (2) miles of the Fortier Plant are identified in Appendix J, Table 1 and the Area of Review Base Map in Appendix J, Figure 15. Table 1 is a compilation of all known wells, operating or abandoned, the depth of the wells, and the amount of pumpage/injection. The annual maximum and minimum water level depths are not applicable to injection wells. Injection wells are constructed for the purpose of injecting material into a confined geological strata for final deposition.

Water wells located on-site and within two (2) miles of the Fortier Plant are identified in Appendix J, Figure 16 and Appendix J, Table 2. Table 2 is a compilation of all known water wells, operating and abandoned. Table 2 does not include wells that are classified as monitor wells, recovery wells, or piezometers. Information regarding the amount of pumpage and the maximum and minimum water level depths is included in Appendix L.

The water analysis from the water well near the facility is located in Appendix L.

9. the proposed location of groundwater monitoring wells as required under LAC 33:V.3315.A and B;

Response: The location of existing groundwater monitoring wells is shown on Appendix J, Figure 2. Groundwater monitoring wells are specifically addressed in the pending Post-Closure permit.

10. the proposed "point of compliance" as defined under LAC33:V.3311;

    Response: The proposed "point of compliance" as defined in LAC 33:V.3311 is specified by the administrative authority in the Post Closure permit.

11. buildings, treatment, storage, or disposal operations; or other structures (recreation areas, runoff control systems, access and internal roads, storm sanitary, and process sewerage systems, loading and unloading areas, fire control facilities, utilities, security facilities, etc.);

    Response: Buildings, treatment, storage or disposal operations and other structures are shown in Appendix J, Figures 2, 17, 18, 19, 20, and 21.

12. barriers for drainage or flood control;

    Response: Barriers for drainage or flood control, as well other structures, such as drainage ditches and dikes, used to promote proper site drainage are shown in Appendix J, Figures 2, 17, 18, 19, and 20.

13. location of operational units within the TSD facility site, where hazardous waste is (or will be) treated, stored, or disposed of (including equipment cleanup areas). (For large TSD facilities, the administrative authority may allow the use of other scales on a case-by-case basis); and

    Response: The locations of operational units within the TSD facility site where hazardous waste is treated, stored, or disposed of are identified on the Hazardous Waste Management System Location Map (Cytec Drawing No. 36-0-32) in Appendix J, Figure 2.

14. natural features affecting off-site drainage patterns, transportation, utilities, and location of effluent discharges.

    Response: The natural features affecting off-site drainage patterns, transportation, utilities and the location of effluent discharges are shown on the USGS Map in Appendix J, Figure 1 and on the Hazardous Waste Management System Location Map (Cytec Drawing No. 36-0-32) in Appendix J, Figure 2.

C. site layout and facility design when phased construction is planned; the plans must indicate each phase and an accompanying schedule of construction;

   Response: The site layout and facility design are shown on the Hazardous Waste Management System Location Map (Cytec Drawing No. 36-0-32) in Appendix J, Figure 2. Since the facility is existing, the requirements for phased construction are not applicable.

D. chemical and physical analyses of the hazardous wastes and the hazardous debris to be handled at the facility which must be known to treat, store, or dispose of the wastes properly;

Response: Chemical and physical analyses of the hazardous waste streams that are treated, stored and/or disposed of on-site are included in Appendix M. Waste characterizations are based on knowledge of processes generating the waste, analytical data or a combination of both.

E. a copy of the waste analysis plan required by LAC 33:V.1519.B;

Response: A copy of the Waste Analysis Plan as required by LAC 33:V.1519.B is included in Appendix N.

F. a description of the security procedures (including entry control, hours manned, lighting, monitoring, and other procedures to prevent unauthorized entry) and equipment required by LAC 33:V.1507 or a justification demonstrating the reasons for requesting a waiver of this requirement;

Response: A description of the security procedures is provided in the Fortier Manufacturing Complex--Security Manual in Appendix O. The perimeter of the operating area is enclosed by a fence, with gates that are either closed or manned by security guards. The Main Gate is manned by security guards 24 hours per day. All persons must comply with the security procedures for Cytec employees, service or contract employees or visitors, as appropriate, prior to being granted entry into the Fortier Plant. The security guards monitor the Fortier Plant operating area perimeter during random and scheduled security patrols. The Fortier Plant follows the guidelines established by the Illuminating Engineering Society with regard to illumination levels for indoor and outdoor lighting. Additional information is provided in the response to LAC 33:V.1507.

G. a copy of the general inspection schedule required by LAC 33:V.1509.B. Include, where applicable, as part of the inspection schedule, specific requirements in LAC 33:V.1709, 1719, 1721, 1731, 1907.I, 1911, 2109, 2309, 2507, 2703.A-G, 2907, 3119.B and C, and 3205;

Response: In accordance with LAC 33:V.1509.B, a copy of the general inspection schedule is incorporated in the Inspection Plan in Appendix P.

H. a justification of any request for a waiver(s) of the preparedness and prevention requirements of LAC 33:V.1511;

Response: A justification is not required because Cytec is not requesting a waiver of the preparedness and prevention requirements of LAC 33:V.1511.

I. a copy of the contingency plan required by LAC 33:V.1513
[Note: Include, where applicable, as part of the contingency plan, specific requirements in LAC 33:V.2909];

Response: A copy of the Contingency Plan as required by LAC 33:V.1513 is included in Appendix Q.

J. a description of procedures, structures, or equipment used at the facility to:

1. prevent hazards in unloading operations (for example, ramps, special forklifts);

Response: Fortier has programs in place and utilizes the appropriate facilities and equipment to prevent hazards in unloading operations. Fortier does not receive hazardous waste from off-site, but hazardous wastes may be transferred within the facility, which may involve loading and unloading. The personnel responsible for hazardous waste management at the Fortier Plant are trained in the proper and safe procedures for handling those wastes, which include loading and unloading activities. Operators are trained and certified for their respective jobs through the Fortier Operator Certification Training Program.

In addition, personnel other than operators may be required to obtain a Safety Work Permit prior to performing certain tasks within the plant. This is to ensure that the personnel are properly equipped to perform the task safely. The facilities and equipment used to manage the hazardous waste will depend upon the physical state of the waste and the current management method, i.e. tank, container, rolloff bin, etc. Liquid transfers between tanks within the facility are usually performed using pumps and aligning valves to properly route the waste in the existing hazardous waste tank system. Drums of hazardous waste on a pallet may be managed using a forklift and individual drums may be managed using a forklift with a drum carrier attachment. Drums and other various size and shape containers of hazardous waste that are shipped off-site are usually managed manually, for example with a drum dolly, onto a truck equipped with a lift gate. If the transport vehicle is not equipped with a lift gate, it may be necessary to move the containers to a loading dock accessible via a ramp. The equipment used to manage hazardous waste may also include flat bed trucks, vacuum trucks, etc. The list is not intended to be all inclusive, but to provide examples of how procedures, facilities and equipment may be used to properly manage hazardous wastes.

Furthermore, Fortier has procedures including, but not limited to those contained in the Contingency Plan in Appendix Q, for responding to any emergency situations that may arise. These procedures and training are believed to minimize the possibility of any spills during loading or unloading operations. In the unlikely event of a spill, the personnel are trained to respond by containing and cleaning up the spill to minimize any threat to human health or the environment.

2. prevent runoff from hazardous waste handling areas to other areas of the facility or environment, or to prevent flooding (for example, berms, dikes, trenches);

Response: The Fortier Plant has programs in place, facilities and equipment to prevent runoff from hazardous waste areas from entering other areas or the environment and to prevent flooding. The Fortier Plant has a segregated storm water management system that routes storm water collected from the hazardous waste management unit secondary containment to hazardous waste tanks for disposal via on-site deep well injection. Storm water is collected within concrete secondary containment, routed to a sump by means of a sloped base or trenches, then pumped into the appropriate hazardous waste tank system. The storm water is removed from the secondary containment within 24 hours or as in timely a manner as is possible to prevent the possibility of flooding. Storm water is primarily managed in the Miscellaneous Effluent (MET) system. The Container Storage Building is designed to prevent the infiltration of storm water. Therefore,

the storm water that falls on the Container Storage Building is not managed in the hazardous waste tank system.

3. monitoring leachate control;

   Response: The requirements of LAC 33:V.517.J.3. do not apply to Cytec, because Cytec does not collect leachate from any of the closed surface impoundments.

4. prevent contamination of water supplies;

   Response: The Fortier Plant has programs in place, facilities and equipment to prevent the contamination of water supplies. The Fortier Plant has a segregated storm water management system to prevent contaminated storm water from being discharged to the Mississippi River. Potable water in the vicinity of the Fortier Plant is supplied by Jefferson Parish or St. Charles Parish Water Departments, both of which draw water only from the Mississippi River. The surface water management and monitoring conducted at the Fortier Plant is performed in compliance with applicable LDEQ requirements and discussed in the response to LAC 33:V.517.J.5.

   Groundwater is not typically used as a water supply. Cytec has installed concrete secondary containment surrounding the hazardous waste tanks in compliance with applicable regulations and to minimize any threat to human heath of the environment. Furthermore, spills are contained and routed to the hazardous waste management system either through existing piping or via vacuum truck.

5. monitor water and air pollution affecting area outside site;

   Response: The Fortier Plant has programs in place, structures, and equipment to monitor water quality potentially affecting the area outside the site. The water discharged from the Fortier Plant is regulated under an existing LPDES/NPDES permit. The End of Pipe (EOP) wastewater treatment plant receives wastewater continuously from the various operations, which is discharged through Outfall 001. Outfall 002 receives only storm water runoff from the developed area of the Fortier Plant. Outfall 003 receives Mississippi River water clarifier return flow which commingles with Outfall 001 effluent downstream of the Outfall 001 monitoring station.

   The water discharged through LPDES/NPDES permitted Outfall 001 is monitored for specific parameters periodically during a 24 hour period in addition to the samples required by the LPDES/NPDES permit. This additional monitoring provides preliminary data that can be used to identify problems , if they exist, and an opportunity to take corrective action. In the event that elevated levels of monitored constituents are detected, the discharge from Outfall 001 can be diverted to the MET system for on-site management in the hazardous waste tank system prior to disposal via on-site deep well injection.

   That portion of the storm water runoff, which is not managed on-site in the hazardous waste tank system, is routed to the Intercept Ditch located at the south

end of the process area. The Intercept Ditch is sampled at regular intervals for LPDES/NPDES regulated parameters. The water in the Intercept Ditch is normally pumped to the End of Pipe (EOP) system via Pumping Stations 5 and 2A prior to discharge through LPDES/NPDES permitted Outfall 001 to the Mississippi River. If the sample indicates an abnormal condition, the water in the Intercept Ditch can be pumped to the Miscellaneous Effluent (MET) system for disposal via on-site deep well injection. During unusually high flow conditions, the Intercept Ditch may overflow and discharge through LPDES/NPDES permitted Outfall 002.

In addition, Cytec voluntarily monitors a Jefferson Parish ditch located near the Fortier Plant, identified as the South Kenner Ditch, to verify that no contamination has reached the outside perimeter of the plant boundary.

The Fortier Plant has programs in place, structures, and equipment to monitor air quality potentially affecting the area outside the site. In general, the Fortier Plant operations are conducted in compliance with the applicable air emission limits imposed by the current permits. The Fortier Plant has an extensive leak detection and repair (LDAR) program to monitor all applicable components and make repairs as necessary to minimize fugitive emissions. The Fortier Plant also has procedures to receive, document and investigate citizen complaints regarding odors. If the source of the complaint is confirmed, then corrective action is taken to eliminate the source, if possible. The Safety Department performs employee exposure monitoring in compliance with applicable OSHA requirements, which also serve to reduce off-site impact.

Cytec is a member of the River Region Environmental Association (RREA), which operates an ambient air monitoring network. There are a total of three (3) ambient air monitoring stations located in towns of Ama, Hahnville and Wallace. The ambient air monitoring station located in Ama is less than one half mile west of the Fortier Plant. The ambient air monitoring station monitors particulate matter (PM-100, carbon monoxide, sulfur dioxide and oxides of nitrogen. There has never been a recorded violation of any ambient air standard at the ambient air monitoring station located in Ama, which is presently within ½ mile of the Fortier property.

6. mitigate effects of equipment failure, power outages, inclement weather, or other abnormal conditions; and

Response: The Fortier Plant has programs in place, structures, and equipment to mitigate effects of equipment failure, power outages, inclement weather, or other abnormal conditions. Measures taken to guard against power failure and to mitigate the effects of a power failure on plant operations and emergency systems include, but are not limited to: two independent sources of power from Entergy; automatic start electric and diesel pumps for fire water at the river dock; manual start diesel pumps on stand-by at the settling basin; battery operated emergency power units for critical electrically driven equipment plus alternate steam or diesel driven spares; pneumatic critical instrumentation with reservoirs at operating units plus alternate steam and electrical driven plant air compressors; fail safe control systems; safety interlock systems; operation of telephone system, critical alarms and safety systems with a battery operated back up; and individual power supply

cables for some systems.

Critical equipment items in the hazardous waste treatment systems are installed as spare pairs so that any single item failure will not effect the operation of the system. For example, all filters are operated as spare pairs; the Catalyst Settling Tank and Primary Filter Feed Tank serve the same function; the North and South WWCB Backwash Tanks serve the same function; MET 1 and MET 2 Tanks serve the same function; and deep well injection pumps are provided with installed spares.

Cytec has spare parts available in the on-site stores warehouse or the parts can be obtained overnight, based upon availability, using an existing contract. The deep well injection system is provided with a diesel powered injection pump to maintain a flow of clarified Mississippi river water to the injection wells in the event of a power failure.

The Fortier Plant Hurricane Procedure provides additional information including vendor names and addresses, the number and type of generators required, fuel storage capacity and usage rates, etc. and is included in the Contingency Plan in Appendix Q . This document is included as an example and is subject to revision.

7. prevent undue exposure of personnel to hazardous waste (for example, protective clothing);

Response: Cytec has programs in place, structures, and equipment used at the Fortier Plant to prevent undue exposure of personnel to hazardous waste. The hazardous wastes generated and managed at the Fortier Plant present no greater degree of hazard than many of the raw materials, intermediates and products routinely handled at the Fortier Plant. Cytec has a written Personal Protective Equipment (PPE) program that complies with OSHA standards cited in 29 CFR Part 1910 Subpart I - Personal Protective Equipment.

Standard PPE, consisting of hard hat, safety glasses and safety shoes, is required for employees located in the fenced part of the Fortier Plant working in hazardous waste areas and production units. These employees also carry safety goggles and must meet minimum clothing standards. Additional PPE is required for various jobs and duties as detailed in job descriptions, operating procedures and job safety analyses. PPE, beyond standard PPE, is selected by supervision in the respective area, with the assistance of the Safety Department professionals and the Fortier Plant physician, as required.

Communications to employees on PPE requirements are done through training sessions, safety meetings, operating procedures and job safety analyses. When the PPE requirements change for an existing job or new PPE requirements are added, employees receive training in the reason for the change and instruction on the proper use of the PPE. Employees are trained not to use damaged or defective PPE and in how to recognize when PPE failure has occurred. Employees have access to new PPE through departmental stock inventory, Fortier Plant stores warehouse, and from the Safety Department.

Cytec also uses engineering controls, where possible, to minimize employee exposure to hazardous materials. Examples of engineering controls include closed systems and ventilation. Cytec also prohibits the food, beverages or tobacco products from being carried, stored or consumed in locations near hazardous materials. Cytec encourages good hygiene practices such as washing face and hands throughly with soap and water before eating, drinking or smoking to further minimize employee exposure.

8. prevent accidental ignition or reaction of ignitable, reactive, or incompatible wastes as required to demonstrate compliance with LAC 33:V.1517; and

Response: Cytec has programs in place, structures, and equipment used at the Fortier Plant to prevent accidental ignition or reaction of ignitable, reactive, or incompatible wastes as required to demonstrate compliance with LAC 33:V.1517.

No smoking is permitted inside the Fortier Plant except in certain designated areas. All visitors are reminded of this rule and are monitored for compliance. In addition, "No Smoking" signs are posted in critical areas as an added reminder to all visitors, contractors and employees.

Cutting, burning and welding are controlled through the use of a Safety Work Permit system, which requires appropriate precautions be taken prior to and during such work. A special 'hot work" section of the permit must be completed in addition to the standard safety work permit. All "hot work" permits must be signed only by personnel that are qualified to approve such work.

The only "reactive" hazardous waste streams generated and managed at the Fortier Plant consist of process wastes that contain cyanides which may be released at low pH. General measures taken to segregate incompatible streams and prevent any hazardous interaction include:

- **Wastes are transferred to tanks and deep wells via pipelines that are dedicated for specific waste streams. The transfer of wastes in a closed system does not allow the commingling of incompatible, reactive or ignitable wastes, in such a manner that would cause an adverse reaction.**

- **Acidic waste streams are not commingled with cyanide bearing wastes unless the waste stream is neutralized prior to commingling to prevent any adverse reactions.**

9. prevent nonpermitted releases to the atmosphere.

Response: Cytec has programs in place, structures, and equipment used at the Fortier Plant to prevent nonpermitted releases to the atmosphere.

Cytec also conducts Leak Detection and Repair (LDAR) monitoring in compliance with applicable regulations to minimize fugitive emissions to the atmosphere. Cytec attempts to install environmentally friendly equipment where possible, such as pumps with dual mechanical seals, to minimize fugitive emissions to the

atmosphere.

K. traffic pattern, estimated volume (number, types of vehicles) and control (for example, show turns across traffic lanes, and stacking lanes, if appropriate; describe access road surfacing and load bearing capacity; show traffic control signals);

Response: The roads that establish the general traffic patterns within the Fortier Plant are depicted on Cytec Drawing No. 36-0-08 included in Appendix R. All of the roads in and around the Fortier Plant are two lane roads with two way traffic. Traffic within the Fortier Plant consists of automobiles, light duty passenger trucks, commercial trucks, eighteen wheel tractor and trailers, and construction equipment, such as forklifts, cranes and cherry pickers. There are an estimated 250 passenger type vehicles and 100 commercial trucks in the Fortier Plant on an average day. This estimate does not include those vehicles that do not enter the plant that may be parked in the Administrative, Hourly Employee, or Contract Employee Parking Lots. Most passenger automobiles are confined to the employee parking lots and those individuals travel either by foot or bicycle. A review of the hazardous waste shipments from 1989 to 1997 indicted that an average of 35 shipments of hazardous waste leave the Fortier Plant with a range from 9 to 89 shipments. The road surfacing materials consist of concrete, asphalt and compacted limestone. The main roads are constructed of concrete and the less traveled roads are constructed of compacted limestone. All roads have a load bearing capacity of approximately 80,000 pounds. A weigh scale is located on-site to monitor the weights of trucks entering and leaving the facility for accounting documentation and to ensure that the trucks comply with applicable Department of Transportation weight limitations. Traffic control is achieved by requiring all vehicles to stay below the 19 7/8 miles per hour speed limit and the use of stop signs. Pedestrians and bicycles always have the right of way in the Fortier Plant. The Fortier Plant Security Manual includes the Plant Driving Rules (refer to Appendix O).

L. an outline of both the introductory and continuing training programs by owners or operators to prepare persons to operate or maintain the TSD facility in a safe manner as required to demonstrate compliance with LAC 33:V.1515. A list of general qualifications of key operating positions and a brief description of how training will be designed to meet actual job tasks in accordance with these requirements;

Response: The Fortier Training Plan provides the outline of both the introductory and continuing training programs to prepare persons to operate and maintain the TSD facility in a safe manner as required to demonstrate compliance with LAC 33:V.1515 and is included in Appendix S. This standard also provides a description of how training will be designed to meet actual job tasks in accordance with these requirements.

A list of general qualifications of key operating positions is also provided in Appendix S.

M. a copy of the closure plan and, where applicable, the post-closure plan required by LAC 33:V.3511, 3523, and 1915. Include, where applicable, as part of the plans, specific requirements in LAC 33:V.1915, 2117, 2315, 2521, 2719, 2911, 3121, 3203 and 3207;

Response: A copy of the Closure Plan is included in Appendix T.

The Post-Closure Plan is addressed in a separate Post Closure Permit which became effective on April 6, 1998, therefore, it is not included in this hazardous waste operating permit.

N. for hazardous waste disposal units that have been closed, documentation that notices required in LAC 33:V.3517 have been filed;

Response: Cytec has closed two (2) surface impoundments, identified as Surface Impoundments 1 and 3, as hazardous waste disposal units. In accordance with LAC 33:V.3517, Cytec submitted a closure certification to LDEQ by registered mail on April 28, 1989 that the hazardous waste management unit had been closed in accordance with the specifications in the approved closure plan. A copy of the transmittal letter date April 28, 1989 and the certifications by the owner and the independent professional engineer are included in Appendix U.

The complete closure certification report for Surface Impoundments 1 and 3 has previously been submitted to LDEQ as part of the post-closure permit application. A copy of LDEQ's acceptance of closure certification for Surface Impoundments 1 and 3 dated June 7, 1989 is also included in Appendix U.

Cytec does not currently operate any hazardous waste surface impoundments, waste piles, land treatment or landfill units on-site that are subject to the requirements of LAC 33:V.3517.A. Cytec will submit a certification signed by the owner or operator and an independent registered professional engineer with supporting documentation within 60 days of completion of final closure of the facility.

Cytec submitted notification to the Jefferson Parish Department of Zoning regarding the type, location and quantity of hazardous waste disposed of on-site in a letter dated June 14, 1989 to support the survey plat submitted on May 1, 1989. A copy of this documentation is included in Appendix V. This documentation has previously been submitted to LDEQ as part of the post-closure permit application.

O. the most recent closure cost estimate for the facility prepared in accordance with LAC 33:V.3705 and a copy of the documentation required to demonstrate financial assurance under LAC 33:V.3707. For a new facility, a copy of the required documentation may be submitted 60 days prior to the initial receipt of hazardous wastes, if that is later than the submission of the Part II;

Response: A copy of the most recent closure cost estimate for the Fortier Plant prepared in accordance with LAC 33:V.3705 is included in the Closure Plan in Appendix T. This information is updated annually in accordance with LAC 33:V. 3705.B. and maintained on file at the facility in accordance with LAC 33:V.3705.D.

A copy of the financial assurance demonstration documentation required by LAC 33:V.3707 is included in Appendix W. This information is updated annually and submitted to the administrative authority within 90 days after the close of each succeeding fiscal year in accordance with LAC 33:V.3707.F.5.

P. where applicable, the most recent post-closure cost estimate for the facility prepared in accordance with LAC 33:V.3709 plus a copy of the documentation required to demonstrate financial assurance under LAC 33:V.3711. For a new facility, a copy of the required documentation may be submitted 60 days prior to the initial receipt of hazardous wastes, if that is later than the submission of the Part II; 33:V.112

Response: A copy of the most recent post-closure cost estimate for the Fortier Plant prepared in accordance with LAC 33:V.3709 has not been included in this hazardous waste permit application, because it is included and being addressed in a separate post-closure permit.

A copy of the financial assurance demonstration documentation required by LAC 33:V.3711 is included in Appendix W. This information is updated annually and submitted to the administrative authority within 90 days after the close of each succeeding fiscal year in accordance with LAC 33:V.3711.F.5. This information is also included in the separate post-closure permit.

Q. where applicable, a copy of the insurance policy or other documentation which comprises compliance with the requirements of LAC 33:V.Chapter 37. For a new facility, documentation showing the amount of insurance meeting the specification of LAC 33:V.Chapter 37 that the owner or operator plans to have in effect before initial receipt of hazardous waste for treatment, storage, or disposal;

Response: In compliance with LAC 33:V.3715, Cytec maintains liability coverage for sudden accidental occurrences in the amount of $5 million per occurrence with an annual aggregate of $5 million and nonsudden accidental occurrences in the amount of $3 million per occurrence with an annual aggregate of $6 million. The insurance requirements for the Fortier Plant are demonstrated through the use of a financial test, which is included in Appendix W.

R. where appropriate, proof of coverage by a state financial mechanism in compliance with LAC 33:V.Chapter 37;

Response: The requirements of LAC 33:V.517.R. do not apply to Cytec, because Cytec does not rely on proof of coverage by a state financial mechanism.

S. a wind rose (i.e., prevailing wind speed and direction) and the source of the information;

Response: Wind rose diagrams showing the prevailing wind speed and direction are included in Appendix X. The data has been obtained from a monitoring site located in Hahnville, Louisiana. The monitoring site is operated by Environmental Systems Corporation, 200 Tech Center Drive, Knoxville, Tennessee 37912, (423)688-7900, under contract to River Region Environmental Association (RREA).

T. facility location information:

1. Seismic Standard. In order to determine the applicability of the seismic standard, LAC 33:V.1503.A.3, the owner or operator of the facility must identify the political jurisdiction (e.g., parish, township, or election district) in which the facility is proposed to be located.

   a. The owner or operator shall demonstrate compliance with the seismic standard. This demonstration may be made using either published geologic data (including federal hazardous

waste regulations) or data obtained from field investigations carried out by the applicant. The information provided must be of such quality to be acceptable to geologists experienced in identifying and evaluating seismic activity. The information submitted must show that either:

i. no faults which have had displacement in Holocene time are present, or no lineations which suggest the presence of a fault (which have displacement in Holocene time) within 3,000 feet of a facility are present, based on data from:
   (a) published geologic studies, including cites from federal regulations which demonstrate that the requirements of this Section do not apply,
   (b) aerial reconnaissance of the area within a five-mile radius from the facility,
   (c) an analysis of aerial photographs covering a 3,000-foot radius of the facility, and
   (d) if needed to clarify the above data, a reconnaissance based on walking portions of the area within 3,000 feet of the facility, or

ii. no faults may pass within 200 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted based on data from a comprehensive geologic analysis of the site. Unless a site analysis is otherwise conclusive concerning the absence of faults within 200 feet of such portions of the facility, data shall be obtained from a subsurface exploration (trenching) of the area within a distance no less than 200 feet from portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted. Such trenching shall be performed in a direction that is perpendicular to known faults (which have had displacement in Holocene time) passing within 3,000 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted. Such investigation shall document with supporting maps and other analyses, the location of any faults found, and shall be certified by an independent Louisiana registered professional engineer or geologist.

Response: The requirements of LAC 33:V.517.T.1. and LAC 33:V.1503.A.3. refer to proposed and new facilities and therefore, do not apply to Cytec, because Cytec's Fortier Plant, located within Jefferson Parish, is an existing facility.

Furthermore, the current hazardous waste operating permit wording acknowledges that Cytec has provided the requested information and is in compliance with this requirement. In addition to the original permit application, this confidential information was provided to LDEQ, Office of Solid and Hazardous Waste, Land Ban Division on February 8, 1993. Non confidential excerpts from previous submittals to EPA, DNR and LDEQ regarding seismic activity are included in Appendix Y.

2. 100-year floodplain
   a. Owners and operators of all facilities shall provide an identification of whether the facility is located within a 100-year floodplain.
   b. Owners and operators of facilities located in the 100-year floodplain must provide the following information:
      i. the 100-year flood level and any other special flooding factors (e.g., wave action) which must be considered in designing, constructing, operating, or maintaining the facility to withstand washout from a 100-year flood;
      ii. engineering analysis to indicate the various hydrodynamic and hydrostatic forces expected to result at the site as a consequence of a 100-year flood;
      iii. structural or other engineering studies showing the design of operational units (e.g., tanks, incinerators) and flood protection devices (e.g., floodwalls, dikes) at the facility and how these will prevent washout;

iv. if applicable, and in lieu of the above two provisions, a detailed description of procedures to be followed to remove hazardous waste to safety before the facility is flooded, including:
v. timing of such movement relative to flood levels, including estimated time to move the waste, showing that such movement can be completed before floodwaters reach the facility;
vi. a description of the location(s) to which the waste will be moved and demonstration that those facilities will be eligible to receive hazardous waste in accordance with LAC 33:V.Subpart 1;
vii. the planned procedures, equipment, and personnel to be used and the means to ensure that such resources will be available in time for use; and
viii. the potential for accidental discharges of the waste during movement.

c. existing facilities not in compliance with LAC 33:V.1503.B.3 shall provide a plan showing how the facility will be brought into compliance and a schedule for compliance.

Response: The Fortier Plant was located outside of the 100-year and the 500-year floodplain according to a letter from the Corps of Engineers dated February 13, 1979 and the Flood Hazard Boundary Map (revised 1976). A copy of these documents is located in Appendix K. At that time, the Fortier Plant area was designated as Zone C. Due to revisions of the National Flood Insurance Program by the Federal Emergency Management Agency, the Zone C designation has been eliminated for any area in Jefferson Parish.

The Fortier Plant process area is now designated as Zone X and Zone AE as shown on the Flood Insurance Rate Map (revised March 23, 1995) in Appendix K. These zones are delineated by the 100-year flood elevation, which is the five (5) foot elevation contour line. The Hazardous Waste Management System Location Map (Cytec Drawing No. 36-0-32) in Appendix J, Figure 2 identifies the location of the five (5) foot contour line in relation to the hazardous waste management units. All of the hazardous waste management units, except Deep Well No. 3, are located in Zone X, i.e. outside the boundaries of the 100-year floodplain. The extreme southern portion of the Fortier Plant process area including Deep Well No. 3 and a small portion of it's associated piping are located in Zone AE, i.e. inside the 100-year floodplain.

In accordance with LAC 33:V.1503.B.3., the units located within the 100-year floodplain have been designed, constructed, operated and maintained to prevent washout of any hazardous waste by a 100-year flood. The well head and the piping are sealed components constructed primarily of carbon steel, which are designed to contain the waste at all times, i.e. watertight. Furthermore, the well head is surrounded by a concrete pad and concrete curbing which provide an increase in elevation over the five (5) foot,100 year flood elevation. The potential for a washout by a 100-year flood is highly unlikely, if not virtually impossible. The Fortier Plant has experienced 100-year floods within the past ten (10) years with no adverse impact to the hazardous waste units.

3. site geology, including:
   a. certification by a geologist or independent Louisiana registered professional engineer specializing in geotechnical engineering that the ground and subsurface conditions at the site are acceptable for the planned purposes of the facility;

Response: A certification by a geologist specializing in geotechnical engineering indicating that the ground and subsurface conditions at the site are acceptable for the planned purposes of hazardous waste management at the Fortier Plant is included in Appendix Z.

b. identification of the uppermost aquifer and aquifers hydraulically interconnected beneath the facility property, including groundwater flow direction and rate, and the basis for such identification (i.e., the information obtained from hydrogeologic investigations of the facility area);

Response: The Fortier Plant is located in the geologic region referred to as the Mississippi Embayment. It is located above three (3) named aquifers: the "200-foot" or Gramercy Aquifer, the "400-foot" or Norco Aquifer, and the "700-foot" or Gonzales-New Orleans Aquifer. A generalized hydro geologic column identifying subsurface aquifers in the vicinity of the Fortier Plant is provided in Appendix AA. There are no aquifers under the Fortier Plant that serve as sources of drinking water. The uppermost unnamed aquifer consists of shallow sands occurring approximately 20 to 30 feet below the surface. The slightly deeper "point-bar" deposits begin at 30 to 60 feet below the surface and extend to depths of 100 feet or more. These "point-bar" deposits appear to be hydraulically connected with the Mississippi River, as demonstrated by monitoring wells completed in the "point bar" becoming artesian during high river stages.

Examination of groundwater elevation data and other relevant hydrogeological information indicates that the groundwater generally flows toward the south, away from the Mississippi River. The southerly direction of the groundwater flow appears to vary from predominantly southwest to predominantly southeast due to localized hydrogeological influences and seasonal variation. The groundwater flow rate was estimated using Darcy's Law. The groundwater velocity is a function of the hydraulic conductivity (K), the hydraulic gradient (i), and the effective porosity (p). An approximate groundwater flow rate of 0.25 feet per year was calculated using and average hydraulic conductivity of 1 x 10 E-5 cm/sec, average horizontal hydraulic gradient of 5 x 10E -3 ft/ft, and average effective porosity of 0.2. The actual flow rate will vary depending on the hydraulic conductivity and gradient of the specific area within the Fortier Plant. Maps depicting the groundwater flow direction are included in Appendix J, Figures 3, 4, 5, 6, and 7.

Cytec has acquired hydrogeologic data specific to the Fortier Plant through numerous investigations including, but not limited to, installation of groundwater monitoring systems associated with the closure of surface impoundments and pits, groundwater certifications and the ongoing RFI.

c. soil types, textures, and conditions to depth of thirty feet below lowest elevation of planned disposal cells for impoundments, landfill and land treatment facility based on test holes at 200-foot intervals (or greater or less intervals if acceptable to the administrative authority);

Response: The requirements of LAC 33:V.517.T.3.c. do not apply to Cytec, because Cytec does not currently operate or plan to operate disposal cells for impoundments, landfills, or land treatment units. The closed surface impoundments are addressed in a separate post closure permit issued by LDEQ.

d. logs of test holes and wells, including soil samples for each pertinent strata analyzed for soil type, texture, permeability, and other pertinent characteristics;

Response: Logs of test holes and wells, including soil samples for each pertinent strata analyzed for soil type, texture, permeability, and other pertinent characteristics are provided in Appendix BB.

e. general area map and cross sections indicating the extent of freshwater sands, and the degree of isolation of these aquifers to a depth of 1,000 feet from waste sources by confining layers of clay;

Response: A general area map and cross sections indicating the extent of freshwater sands, and the degree of isolation of these aquifers to a depth of 1000 feet from waste sources by confining layers of clay is included in Appendix J, Figures 8, 9, 10, 11, 12, 13, 14, and 14A.

The cross sectional maps for Fortier illustrate the types of subsurface layers existing beneath the facility. Layers of clay which isolate the waste management facilities from the freshwater sands can be seen in Appendix J, Figure 14 taken from a log during a deep well installation. The sands of the Gramercy Aquifer, Norco Aquifer and the Gonzales-New Orleans Aquifer have been extrapolated from the generalized hydro geologic column in Appendix AA. In addition, a report prepared by Geraghty and Miller, Inc. in 1985 provides a characterization of the geology with isolation of freshwater sands beneath Fortier in Appendix BB.

f. on a topographic map, a delineation of the waste management area, the property boundary, the proposed "point of compliance" as defined under LAC 33:V.3311, the proposed location of groundwater monitoring wells as required under LAC 33:V.3315.A and B; and

Response: The topographic map delineating the waste management areas, the property boundary, the proposed "point of compliance" as defined under LAC 33:V.3311, and the existing and proposed location of groundwater monitoring wells as required under LAC 33:V.3315.A. and B. is included in Appendix J, Figure 2. The waste management areas, points of compliance, and groundwater monitoring well locations are specifically shown in Appendix J, Figure 2. Property boundaries are clearly delineated in Appendix J, Figure 22 for both the operating area and the Fortier site. The groundwater monitoring requirements are addressed in a separate post-closure permit issued by LDEQ.

g. detailed plans and an engineering report describing the proposed groundwater monitoring program to be implemented to meet the requirements of LAC 33:V.3315.A-H.

Response: The current hazardous waste operating permit (LAD 008175390-OP-1), effective April 24, 1995, states in Permit Provision VII.:

VII. Ground Water Protection
A. Applicability
The regulations of Louisiana Administrative Code (LAC), Title 33, Part V, Chapters 5, 15, 29, 33, 35 and the Louisiana Hazardous Waste Control Law,

R.S., 30:2171 of the Environmental Quality Act, R.S. 30:2001 et seq., and the provisions of this section shall apply to ground water protection programs for facilities that are used to treat, store and dispose of hazardous waste at Cytec Industries, located in Waggaman, Louisiana. There are no active regulated units identified in this permit that require groundwater monitoring. Additionally, the permittee's closed waste management areas are not included in this permit. The Department is planning to issue a separate RCRA post-closure permit that will address groundwater monitoring requirements. In the event that a Corrective Action Program is required and upon approval of said Corrective Action Program, the conditions of corrective action will be incorporated into the post-closure permit for areas having groundwater contamination resulting from the past operation of units subject to regulations under RCRA.

Therefore, the detailed plans and an engineering report describing the proposed groundwater monitoring program to be implemented to meet the requirements of LAC 33:V.3315.A.-H. and any other groundwater monitoring requirements are incorporated in the post-closure permit issued by LDEQ.

4. site hydrology, including:
   a. travel times in feet/day for normal drainage of each natural surface drainage system within 1,000 feet of the property;

Response: The Mississippi River located north of and adjacent to the Fortier Plant is considered to be the only natural surface drainage system within 1,000 feet of the property. However, the site drainage does not normally flow to the Mississippi River due to the levee. The only intentional flow to the Mississippi River from the Fortier Plant occurs via the LPDES/NPDES permitted Outfall 001. The other drainage systems in and around the Fortier Plant consist of man made ditches and canals. The stormwater that falls on the. Fortier Plant fenced operating area flows from North to South by gravity and is collected in the Intercept Ditch located at the south end of the fenced operating area. The stormwater is pumped from the Intercept Ditch via Pumping Station 5 and 2A prior to being treated and discharged through Outfall 001. Excess stormwater overflows a concrete weir on the south side of the Intercept Ditch designated as Outfall 002 through drainage ditches that are tributaries to Lake Cataouatche. Flow in these drainage ditches is intermittent.

The Army Corps of Engineers, New Orleans District, provided an estimated 20 year average flow rate of 531,000 cubic feet per second, estimated width of 3500 feet and an average depth of 150 feet to calculate a travel time of approximately 87,000 feet/day for normal drainage of the Mississippi River.

   b. climate factors:
      i. the 24-hour/25-year storm rainfall;

Response: The most current Hydraulics Manual issued by the State of Louisiana, Department of Transportation and Development indicates that the 24-hour/25-year storm rainfall is 9.6 inches for Region I which includes Jefferson Parish.

ii. maximum, minimum, and average temperature/month for past 10 years;

Response: A table documenting the maximum, minimum, and average temperature/month for past 10 years (1988-1997) is included in Appendix CC. The data was obtained from the National Oceanographic and Atmospheric Administration, National Climatic Data Center for the monitoring station located at the New Orleans International Airport.

iii. impact of previous hurricanes on area;

Response: Previous hurricanes have had no impact on the Fortier Plant since its start up in 1954. Hurricane Betsy hit the area in 1965 and toppled trees in the surrounding area, but the Fortier Plant remained completely intact. A summary of the climatological impact of Hurricane Betsy is included in Appendix DD.

iv. comparison of rainfall and evapotranspiration rates; and

Response: Previous data indicated that the U.S. Department of Agriculture, Soil Conservation services, had determined average yearly rainfall as 60 inches and evaporation as 47 inches. This higher rainfall rate compared to evaporation provides for saturation of the area soils most of the year. A table summarizing the monthly rainfall in inches from 1966 through 1997 is included in Appendix EE. The data was obtained from the National Oceanographic and Atmospheric Administration, National Climatic Data Center for the monitoring station located at the New Orleans International Airport. A table summarizing the average monthly estimated pan evaporation rates in inches is also included in Appendix EE. These data were obtained from the Louisiana Office of State Climatology at the Louisiana State University. This data supports the previous conclusion.

v. prevailing wind direction (provide wind rose);

Response: Prevailing wind directions are shown in the wind rose included in Appendix X. The predominant prevailing wind direction appears to be southeasterly.

c. a description of any plume of contamination that has entered the groundwater from a regulated unit at the time that the application is submitted that:
   i. delineates the extent of the plume on the topographic map such as required under LAC 33:V.521.B.4; and
   ii. identifies the concentration of each Table 4, LAC 33:V.Chapter 33, constituent throughout the plume or identifies the maximum concentrations of each such constituent in the plume;

Response: The requirements of LAC 33:V.517.T.4.c. do not apply to Cytec at this time, because there is no indication that any plume of contamination has entered the groundwater from a regulated unit.

Furthermore, the current hazardous waste operating permit (LAD 008175390-OP-1), effective April 24, 1995, states in Permit Provision VII:

VII. Ground Water Protection

A. Applicability

The regulations of Louisiana Administrative Code (LAC), Title 33, Part V, Chapters 5, 15, 29, 33, 35 and the Louisiana Hazardous Waste Control Law, R.S., 30:2171 of the Environmental Quality Act, R.S. 30:2001 et seq., and the provisions of this section shall apply to groundwater protection programs for facilities that are used to treat, store and dispose of hazardous waste at Cytec Industries, Fortier Plant, located in Waggaman. Louisiana. There are no active regulated units identified in this permit that require groundwater monitoring. Additionally, the permittee's closed waste management areas are not included in this permit. The Louisiana Department of Environmental Quality (LDEQ) is planning to issue a separate RCRA post-closure permit that will address groundwater monitoring requirements. In the event that a Corrective Action Program is required and upon approval of said Corrective Action Program, the conditions of corrective action will be incorporated into the post-closure permit for areas having groundwater contamination resulting from the past operation of units subject to regulations under RCRA.

Therefore, in accordance with the current hazardous waste operating permit (LAD 008175390-OP-1), effective on April 24, 1995, the groundwater monitoring requirements are addressed in a separate post-closure permit issued by LDEQ.

d. if the presence of hazardous constituents have not been detected in the groundwater at the time of permit application, the owner or operator must submit sufficient information, supporting data, and analyses to establish a detection monitoring program which meets the requirements of LAC 33:V.3317. This submission must address the following items specified under LAC 33:V.3317:
   i. a proposed list of indicator parameters, waste constituents, or reaction products that can provide a reliable indication of the presence of hazardous constituents in the groundwater;
   ii. a proposed groundwater monitoring system;
   iii. background values for each proposed monitoring parameter or constituent, or procedures to calculate such values; and
   iv. a description of proposed sampling, analysis, and statistical comparison procedures to be utilized in evaluating groundwater monitoring data;

Response: Cytec has not detected the presence of hazardous constituents in the groundwater at the time of permit application. Cytec is continuing to conduct detection monitoring from the existing systems in accordance with the separate post-closure permit issued by LDEQ.

e. if the presence of hazardous constituents has been detected in the groundwater at the point of compliance at the time of permit application, the owner or operator must submit sufficient information, supporting data, and analyses to establish a compliance monitoring program which meets the requirements of LAC 33:V.3319. The owner or operator must also submit an engineering feasibility plan for a corrective action program necessary to meet the requirements of LAC 33:V.3321. To demonstrate compliance with LAC 33:V.3319, the owner or operator must address the following items:

   i. a description of the wastes previously handled at the facility;
   ii. a characterization of the contaminated groundwater, including concentrations of hazardous constituents;
   iii. a list of hazardous constituents for which compliance monitoring will be undertaken in

accordance with LAC 33:V.3315 and 3317;

iv. proposed concentration limits for each hazardous constituent, based on the criteria set forth in LAC 33:V.3309.A, including a justification for establishing any alternate concentration limits;

v. detailed plans and an engineering report describing the proposed groundwater monitoring system, in accordance with the requirements of LAC 33:V.3315; and

vi. a description of proposed sampling, analysis, and statistical comparison procedures to be utilized in evaluating groundwater monitoring data;

Response: The requirements of LAC 33:V.517.T.4.e. do not apply to Cytec because the presence of hazardous constituents has not been detected in the groundwater at the point of compliance at the time of permit application. The groundwater monitoring requirements are addressed in a separate post-closure permit issued by LDEQ.

f. If hazardous constituents have been measured in the groundwater which exceed the concentration limits established under LAC 33:V.3309, Table 1, or if groundwater monitoring conducted at the time of permit application under LAC 33:V.3301-3309 at the waste boundary indicates the presence of hazardous constituents from the facility in groundwater over background concentrations, the owner or operator must submit sufficient information, supporting data, and analyses to establish a corrective action program which meets the requirements of LAC 33:V.3321. To demonstrate compliance with LAC 33:V.3321, the owner or operator must address, at a minimum, the following items:

i. a characterization of the contaminated groundwater, including concentrations of hazardous constituents;

ii the concentration limit for each hazardous constituent found in the groundwater as set forth in LAC 33:V.3309;

iii. detailed plans and an engineering report describing the corrective action to be taken; and

iv. a description of how the groundwater monitoring program will demonstrate the adequacy of the corrective action.

Response: The requirements of LAC 33:V.517.T.4.f. do not apply to Cytec because hazardous constituents have not been measured in the groundwater which exceed the concentration limits established under LAC 33:V.3309, Table 1, nor has the presence of hazardous constituents been detected in groundwater over background concentrations from any regulated unit. The groundwater monitoring requirements are addressed in a separate post-closure permit issued by LDEQ.

5. Environmental Factors, including:

a. list all known historical sites, recreational areas, archaeological sites, wildlife areas, swamps and marshes, habitats for endangered species, and other sensitive ecological areas within 1000 feet of the site; and

b. indicate measures planned to protect such areas listed from detrimental impact from the operation of the proposed facility.

Response: There are no known public historical sites, public recreational areas, public archaeological sites, wildlife areas, swamps and marshes, habitats for endangered species, or other sensitive ecological areas within 1000 feet of the

active portion of the Fortier Plant. The Fortier Employees Association (FEA) recreational area is located on-site and is used by Fortier employees, their families and business associates. Fortier also sponsors an annual archeological dig on-site of the former Orange Grove Plantation as part of an educational outreach program. A portion of the land located within the property boundaries of the Fortier Plant appears to be identified as swamp and marsh on the USGS Topographic Map in Appendix J, Figure 1, but this area is greater than 1000 feet from the active operating portion of the Fortier Plant. Cytec intends to take precautions, as necessary, to protect human health and the environment.

6. Geographical Factors. For an area within two miles of the proposed site, provide the following information:
   a. map or aerial photograph showing all buildings identified as residential, commercial, industrial, or public (schools, hospitals, libraries, etc.);

   Response: The map included in Appendix J, Figure 1 is a USGS Topographic Map denoting buildings and various topography of the surrounding land area. Lines have been added to the map to identify the Fortier property boundary and the active operating boundary. A circle with a two mile radius around the Fortier Plant is also noted on the drawing. The Fortier Plant is located in an are that is zoned industrial with residential and commercial zones on either side of the Fortier Plant. An aerial photograph of the facility is provided in Appendix J, Figure 23 and denotes the on-site facility structures.

   b. population;

   Response: The population projection within two miles of the site is estimated to be 10,000. The communities of St. Rose, Ama, Waggaman, Kenner and New Orleans International Airport lie within 2 miles of the Fortier Plant property boundary.

   c. principal livelihood of residents for facilities located in rural areas;

   Response: The requirements of LAC 33:V.517.T.6.c. do not apply to Cytec because Cytec is not located in a rural area. Cytec's Fortier Plant is located in the New Orleans Metropolitan Area in an area zoned as industrial.

   d. land use; and

   Response: Land use of the surrounding area can be determined from the USGS map in Appendix J, Figure 1. Some residential areas exist to the east and west of Fortier with the southern area remaining vacant. To the north of the plant is the Mississippi River which is used for barge and ship traffic. North of the Mississippi River are the New Orleans International Airport and the City of Kenner.

   e. road network, with average daily traffic count and route of trucks which will transport waste to the facility.

   Response: The road network that establishes the general traffic patterns in and around the Fortier Plant are depicted on Cytec Drawing No. 36-0-08 included in

Appendix R. All of the roads in and around the Fortier Plant are two lane roads with two way traffic. The public roads immediately surrounding the plant are used primarily for local traffic. Traffic within the Fortier Plant consists of automobiles, light duty passenger trucks, commercial trucks, eighteen wheel tractor and trailers, and construction equipment, such as forklifts, cranes and cherry pickers. There are an estimated 250 passenger type vehicles and 100 commercial trucks in the Fortier Plant on an average day. This estimate does not include those vehicles that do not enter the plant that may be parked in the Administrative, Hourly Employee, or Contract Employee Parking Lots. Most passenger automobiles are confined to the employee parking lots and those individuals travel either by foot or bicycle. A review of the hazardous waste shipments from 1989 to 1997 indicted that an average of 35 shipments of hazardous waste leave the Fortier Plant with a range from 9 to 89 shipments. The road surfacing materials consist of concrete, asphalt and compacted limestone. The main roads are constructed of concrete and the less traveled roads are constructed of compacted limestone. All roads have a load bearing capacity of approximately 80,000 pounds. A weigh scale is located on-site to monitor the weights of trucks entering and leaving the facility for accounting documentation and to ensure that the trucks comply with applicable Department of Transportation weight limitations. Traffic control is achieved by requiring all vehicles to stay below the 19 7/8 miles per hour speed limit and the use of stop signs. Pedestrians and bicycles always have the right of way in the Fortier Plant. The Fortier Plant Security Manual includes the Plant Driving Rules (refer to Appendix O). Public access to Cytec's Fortier Plant from the west is from Interstate 10 to U.S. Highway 310 across the Luling Bridge then east on Louisiana Highway 18 (River Road) for 8 miles and the Fortier Plant is on the right. From the east, the Fortier Plant is accessed from Interstate 10, south to Clearview Parkway and across the Huey P. Long Bridge on U.S. Highway 90 then right on Louisiana Highway 18 for approximately 7 miles and the Fortier Plant is located on the left. The route of trucks which will transport waste to the facility is not applicable, because Cytec does not currently nor does Cytec anticipate receiving waste from off-site.

7. Operations plan, including:
   a. classification and estimated quantities of wastes to be handled;

   Response: The classification and estimated quantities of wastes to be handled are provided in the Part I/Part A permit application. Quantities of wastes were grouped according to the process code, as identified in the Part I/ Part A permit application.

   b. methods and processes utilized:

   Response: Methods and processes utilized at Fortier for treatment, storage and disposal of hazardous wastes include treatment of wastes by solids removal through settling and filtration, storage of waste in the Container Storage Building, and disposal of wastes through deep well injection. Process descriptions are included in the Part I/ Part A permit application.

   i. facility capacity for each disposal method;

Response: The facility capacity for each disposal method, as well as the capacities for each hazardous waste management unit and system, are included in the Part I / Part A permit application.

ii. detailed description of each process or method;

Response: Detailed descriptions of each process or method used to manage hazardous waste at the Fortier Plant are provided below. A simplified block flow diagram of the Treatment, Storage and Disposal (TSD) facilities associated with the on-site disposal of hazardous waste is provided in Appendix FF.

Underground Injection Disposal (Process Code D79)

Fortier currently operates five (5) underground injection wells to dispose of waste into unconsolidated sand strata which cannot be fractured. These deep wells are used to manage four (4) waste streams, which are identified as: Methyl Methacrylate (MMA) Waste Acid; Wastewater Column Bottoms (WWCB); and a commingled waste stream of Net Stripper Bottoms (NSB)/Recovery Column Bottoms (RCB) and Miscellaneous Effluent (MET). MMA waste acid is normally sent to the Acid Regeneration Plant for use as a feedstock (raw material). Waste acid which cannot be either recycled within the MMA production unit or sent to the Acid Regeneration Plant is sent directly to deep well disposal without routing through the hazardous waste system surface units.

On October 31, 1990, EPA approved Cytec's petition for exemption to the Land Disposal Restrictions imposed by the Hazardous and Solid Waste Amendments of 1984 to the Resource Conservation and Recovery Act. Although the deep wells are maintained as hazardous waste disposal facilities, they are permitted and regulated by the Louisiana Department of Natural Resources. The surface facilities prior to the deep wells are regulated under the Louisiana Hazardous Waste Regulations (LHWR) and the Louisiana Department of Environmental Quality. Conditions specified in the exemption to the Land Disposal Restrictions for deep well disposal require that Cytec not exceed a cumulative waste volume of 64,800,000 gallons per month of restricted hazardous waste injected into the 3000 foot sand, located at a depth between 2,980 and 3,220 feet. Additionally, LDEQ approved Cytec's deep well land disposal restriction exemption petition on May 6, 1994. Periodically, a work over of the deep wells must be performed which requires that the deep wells be back washed. The backwash from the deep wells is normally managed in portable mud tanks and/or containers that are managed in accordance with the accumulation exemption in LAC 33:V.1109.E. The solids are disposed of off-site at a permitted hazardous waste facility and the liquid is returned to the deep well for disposal.

Container Storage (Process Code S01)

Containerized wastes are stored on-site in the Container Storage Building prior to shipment off-site for disposal at an authorized facility.

Tank and Other Treatment (Process Codes T01 and T04)

Wastewater Column Bottoms (WWCB) Injection Well Pretreatment System

The WWCB Pretreatment System is provided to equalize flow and remove solids from wastewater column bottoms generated from the production of acrylonitrile (EPA Waste Code K011) prior to on-site disposal via deep well injection. The system consists of the following treatment tanks and filters: Catalyst Settling Tank TA-403, Primary Filter Feed Tank TA-404, WW Primary Sand Filters F-401a and F-401b, Secondary Filter Feed Tank MF-307, WW Secondary Sand Filters F-401c and F-401d, Cartridge Filters CF-401a, CF-401b, CF401c and CF-401d, North WWCB Backwash Tank, South WWCB Backwash Tank and WWCB Well Injection Tank TA-402.

WWCB is routed either to the Catalyst Settling Tank TA-403 or the Primary Filter Feed Tank TA-404 to equalize the flow and provide a means to gradually feed WWCB through the filtration system. The WWCB is then routed to one or both of the two WW Primary Sand Filters (F-401a and F-401b). The WWCB is then routed to the Secondary Filter Feed Tank MF-307 prior to being routed through one or both of the two WW Secondary Sand Filters (F-401c and F-401d). The WWCB is then routed to the set of four Cartridge Filters (CF-401a, CF-401b, CF-401c and CF-401d) which are equipped with either a disposable cloth sock or a reusable stainless steel mesh filter that the liquid is pumped through to remove most of the remaining small diameter solids. The WWCB is then routed to the WW Well Injection Tank TA-402 prior to on-site disposal via deep well injection. Periodically all of the filters are back washed and the back wash stream is routed to either the North WWCB Backwash Tank or the South WWCB Backwash Tank for treatment by solids settling. Supernatant from the North and South WWCB Back wash Tanks is returned to the head of the pretreatment system. The solids accumulated in the tanks and filters are periodically removed for off-site disposal at a permitted hazardous waste facility.

Recovery Column Bottoms (RCB)(formerly Net Stripper Bottoms (NSB) Injection Well Pretreatment System

The RCB Pretreatment System is also used to remove solids from RCB generated from the production of acrylonitrile (EPA Waste Code K013) prior to on-site disposal via deep well injection. The system consists of the following filters: RCB Sand Filters (100-5a, 100-5b and 100-5c). The RCB wastes are then commingled with the Miscellaneous Effluent (MET) waste stream either by routing to the MET Sand Filters (HRD-V50a, HRD-V50b, HRD-V50c and HRD-V50d) or directly to the MET Injection Tank T-500 prior to on-site disposal by deep well injection. Periodically all of the filters are back washed and the back wash stream is routed to the MET/RCB Backwash Tank 100-6 for treatment by solids settling. Supernatant from the MET/RCB Backwash Tank 100-6 is returned to the head of the MET pretreatment system. The solids accumulated in the tanks and filters are periodically removed for off-site disposal at a permitted hazardous waste facility.

Miscellaneous Effluent (MET) Injection Well Pretreatment System

The MET Injection Well Pretreatment System is provided to equalize flow and remove solids from waste streams comprised primarily of storm water that falls within process areas throughout the Fortier Plant prior to on-site disposal via deep well injection. Waste streams are collected from the following sources: Acrylonitrile Plant Process Area, Aminonitrile Plant Process Area, Emergency Routing of Melamine Plant Discharge, Emergency Routing of the Storm Water Run-Off / Intercept Ditch, Emergency Routing of the NPDES Discharge, Methyl Methacrylate (MMA) Plant Process Area, Acetone Cyanohydrin (ACH) Sump at MMA Plant, Acrylamide (AMD) Sump at the AMD Plant, Production Services Tank Farm Loading and Unloading Area, Production Services Rail/Tank Car Wash Out, Production Services Tank Farm Dikes, Supernatant from MET/RCB Backwash Tank 100-6, RCB (Alternate Routing).

The MET pretreatment system consists of the following treatment tanks and filters: MET 1 Tank, MET 2 Tank, MET Sand Filters (HRD-V50a, HRD-V50b, HRD-V50c and HRD-V50d) and MET Injection Tank T-500. MET is routed either to MET 1 Tank or MET 2 Tank to equalize the flow and provide a means to gradually feed MET through the filtration system. The MET is then routed to the MET Sand Filters (HRD-V50a, HRD-V50b, HRD-V50c and HRD-V50d). The filtered MET is then routed to the MET Injection Tank T-500 prior to on-site disposal via deep well injection. Periodically all of the filters are back washed and the back wash stream is routed to the MET/RCB Backwash Tank 100-6 for treatment by solids settling. Supernatant from the MET/RCB Backwash Tank 100-6 is returned to the head of the MET pretreatment system. The solids accumulated in the tanks and filters are periodically removed for off-site disposal at a permitted hazardous waste facility.

MMA Lab Collection Tank (101-52) - The MMA Lab Collection Tank (101-52) is a small tank and pump system proposed to be used to transfer MMA laboratory waste and small quantities of any hazardous waste generated on-site to the existing MET system for on-site disposal by deep well injection.

iii. storage and disposal procedures:
   (a) plans for receipt, checking, processing, segregation of incompatible wastes, and odor control; and

Response: Fortier does not receive hazardous waste from off-site, therefore, procedures regarding the receipt of waste are not applicable. The wastes generated on-site are from production and production related activities for which Cytec has extensive generator knowledge.

The majority of hazardous wastes managed on-site are generated on a continuous basis and are managed in the processes described in the previous section on a continuous basis. The identification of waste streams in a particular unit is predetermined based upon generator knowledge. If a waste stream must be checked due to a process change or for some other reason, a sample may be taken from a unit or system and analyzed according to Fortier's Waste Analysis Plan (Appendix N).

The procedures for managing the continuously generated wastes are included in

the operating instructions for the applicable units. Special waste processing procedures are only necessary for infrequently generated waste streams. A waste which originates from a spill, clean out of processing units or from other sources on an intermittent basis is subject to Fortier's Waste Disposal Procedure. The generating department must notify the Responsible Care Coordinator (or designee) and /or the Fortier Environmental Department of the waste to be disposed of per the Waste Disposal Procedure. The Environmental Department will assist in the review and proper classification of the waste, including evaluating the need for analytical data and determining the appropriate method of disposal.

Intermittently generated hazardous wastes which are compatible with Fortier's TSD facilities will be managed on-site in the appropriate pretreatment system. The segregation of incompatible wastes which can be disposed of on-site is achieved primarily by engineering design (i.e. separate pipelines) so that the incompatible wastes are isolated from one another. The majority of incompatible wastes at Fortier consist of cyanide bearing waste and acids. Acidic wastes, by engineering design, cannot be directed to any equipment used to manage reactive cyanide bearing wastes. There are some waste streams that contain both acid and cyanide, but the cyanide is in a form which is stable at low pH. In addition, the pH of the MET system is controlled to avoid any adverse reactions. The deep wells have been designated to receive specific waste streams based upon their compatibility and to minimize any adverse reactions, such as generation of heat. Any significant change in service of a deep well which has been receiving acidic streams would require the deep well be throughly flushed with clarified river water for a sufficient length of time to ensure proper neutralization or displacement of the stream. Incompatible wastes or wastes for which there are no on-site disposal options, will be disposed of off-site at an authorized facility.

Odor control has been unnecessary because the hazardous waste is managed in closed systems equipped with emission control devices such as scrubbers.

(b) life of each facility based on projected use;

Response: Although Fortier's hazardous waste management facilities have an expected closure date of 2015, the life of the facility is considered indefinite. Routine maintenance (clean out, repair, and replacement) of TSD facilities at Fortier provides for an unlimited life span.

(c) describe recordkeeping procedures, types of records to be kept, and use of the records by management to control the operation; and

Response: Record keeping procedures, the types of records maintained, and use of the records by management to control the operation are described in the following chapter responses as applicable to the record keeping requirements. All of these records are maintained as part of the operating record in accordance with the applicable regulations (i.e. training records, inspection records, operating logs, etc...). The operating record includes information obtained during operator rounds relative to monitoring instrumentation and operations that the operators and management use to control the waste management processes.

(d) monitoring and recording of incoming wastes;

Response: Procedures for monitoring and recording of incoming wastes are not applicable to Fortier, because Cytec does not receive nor does Cytec anticipate receiving wastes from off-site.

U. Special Requirements. Administrative authority may require additional provisions for special procedures or processes, for specific information for a supplementary environmental analysis, or for such information as may be necessary to enable the administrative authority to carry out his duties under other state laws;

Response: Cytec acknowledges the above regulation.

V. For land disposal facilities, if a case-by-case extension has been approved under LAC 33:V.2239 or a petition has been approved under LAC 33:V.2241 or 2242, a copy of the notice of approval for the extension or petition is required.

Response: Cytec is a land disposal facility currently operating five (5) Class I hazardous waste injection wells in accordance with a petition approved under LAC 33:V.2241. A copy of the notice of approval for the petition is included in Appendix GG.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:280 (April 1984), LR 13:433 (August 1987), LR 14:790 (November 1988), LR 15:181 (March 1989), LR 15:378 (May 1989), LR 16:220 (March 1990), LR 16:399 (May 1990), LR 16:614 (July 1990), LR 16:683 (August 1990), LR 17:658 (July 1991), LR 18:1256 (November 1992), LR 21:266 (March 1995).

Subchapter E. Specific Information Requirements

519. Contents of Part II: General Requirements
Part II of the permit application consists of the general information requirements of this Section, and the specific information requirements in LAC 33:V:519—549 applicable to the facility. The Part II information requirements presented in LAC 33:V.519—549 reflect the standards promulgated in LAC 33:V.Chapters 15—37. These information requirements are necessary in order for the administrative authority to determine compliance with LAC 33:V.Chapters 15—37.

Response: Cytec acknowledges the above regulations.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:280 (April 1984).

§520. Specific Part II Information Requirements for Groundwater Protection

The following additional information regarding protection of groundwater is required from owners or operators of hazardous waste facilities containing a regulated unit except as provided in LAC 33:V.3301.B

and C:

Response: The current hazardous waste operating permit (LAD 008175390-OP-1), effective April 24, 1995, states in Permit Provision VII:

VII. Ground Water Protection
A. Applicability
The regulations of Louisiana Administrative Code (LAC), Title 33, Part V, Chapters 5, 15, 29, 33, 35 and the Louisiana Hazardous Waste Control Law, R.S., 30:2171 of the Environmental Quality Act, R.S. 30:2001 et seq., and the provisions of this section shall apply to groundwater protection programs for facilities that are used to treat, store and dispose of hazardous waste at Cytec Industries, located in Waggaman, Louisiana. There are no active regulated units identified in this permit that require groundwater monitoring. Additionally, the permittee's closed waste management areas are not included in this permit. The Department is planning to issue a separate RCRA post-closure permit that will address groundwater monitoring requirements. In the event that a Corrective Action Program is required and upon approval of said Corrective Action Program, the conditions of corrective action will be incorporated into the post-closure permit for areas having groundwater contamination resulting from the past operation of units subject to regulations under RCRA.

B. Required Programs
The permittee must continue to conduct detection monitoring from the existing systems established during interim status. All groundwater monitoring systems must be maintained, unless exempted from the program at a later date by the administrative authority.

Therefore, in accordance with the current hazardous waste operating permit (LAD 00817530-OP-1), effective on April 24, 1995, the groundwater monitoring requirements are addressed in a separate post-closure permit issued by LDEQ.

§521. Specific Part II Information Requirements for Containers

Except as otherwise provided in LAC 33:V.2101 owners or operators of facilities that store containers of hazardous waste must provide the following additional information:

A. a description of the containment system to demonstrate compliance with LAC 33:V.2111; show at least the following:
   1. basic design parameters, dimensions, and materials of construction;

Response: The Container Storage Building is a 5400 ft.^{2} prefabricated industrial/commercial building with driveway access utilized for hazardous waste container and rolloff bin storage. The structure is walled on three sides with rollup doors on the fourth side to allow for truck and forklift access. The building design provides for segregated container storage cells complete with individual containment structures to prevent commingling of incompatible materials and or spills, in accordance with all Federal and State regulatory requirements. Drawings of the Container Storage Building are included in Appendix HH.

Type: Flammable Liquid Storage
Dimensions: 23'8½" x 51'1$^3/_4$"
Capacity: Maximum pallet storage = 18 pallets x 2 (double stack)
= 36 pallets x 4 drums/pallet x 55 gallons/drum
= 7920 gallon maximum capacity (144 total 55-gallon drums)
Containment: The area is curbed on three sides and the North side has a sloped ramp for vehicular access. The area is sloped to a collection trench located on the West side. Two sumps are provided for liquid collection and removal.
Miscellaneous: An 8" masonry fire wall on the West side acts as a barrier between flammable and other wastes.
Construction Materials: Concrete floor, curbing, trench and sumps. Semstone high performance coating applied to the floor, trench, and sumps.

Type: Miscellaneous Liquid Storage
Dimensions: 18'2" x 51'1$^3/_4$"
Capacity: Maximum pallet storage = 18 pallets x 2 (double stack)
= 36 pallets x 4 drums/pallet x 55 gallon/drum
= 7920 gallon maximum capacity (144 total 55-gallon drums)
Containment: The area is curbed on two sides and the North side has a sloped ramp for vehicular access. The area is sloped to a collection trench located on the East side. Two sumps are provided for liquid collection and removal.
Construction Materials: Concrete floor, curbing, trench and sumps. Semstone high performance coating applied to the floor, trench, and sumps.

Type: Acid Storage
Dimensions: 18'5" x 16'9$^7/_8$"
Capacity: Maximum pallet storage = 6 pallets x 2 (double stack)
= 12 pallets x 4 drums/pallet x 55 gallon/drum
= 2640 gallon maximum capacity (48 total 55-gallon drums)
Containment: The area is curbed on two sides. The area is sloped to a collection trench located on the West side. One sump is provided for liquid collection and removal.
Construction Materials: Concrete floor, curbing, trench and sumps. Semstone high performance coating applied to the floor, trench, and sumps.

Type: Alkaline Storage
Dimensions: 18'5" x 16'6"
Capacity: Maximum pallet storage = 6 pallets x 2 (double stack)
= 12 pallets x 4 drums/pallet x 55 gallon/drum
= 2640 gallon maximum capacity (48 total 55-gallon drums)
Containment: The area is curbed on two sides. The area is sloped to a collection trench located on the West side. One sump is provided for liquid collection and removal.
Construction Materials: Concrete floor, curbing, trench and sumps. Semstone high performance coating applied to the floor, trench, and sumps.

Type: Oxidizer Storage
Dimensions: 18'5" x 16'9$^7/_8$"
Capacity: Maximum pallet storage = 6 pallets x 2 (double stack)

= 12 pallets x 4 drums/pallet x 55 gallon/drum
= 2640 gallon maximum capacity (48 total 55-gallon drums)
Containment: The area is curbed on two sides. The area is sloped to a collection trench located on the West side. One sump is provided for liquid collection and removal.
Construction Materials: Concrete floor, curbing, trench and sumps. Semstone high performance coating applied to the floor, trench, and sumps.

Type: Rolloff Bin Storage
Dimensions: 64' 10" x 40'
Capacity: Maximum bin storage = Maximum bin size x number of bins = 4' x 8' x 25' = 800 ft^3 x 4 bins = 3200 $ft.^3$ total
Containment: The area is curbed on three sides. The area is sloped to a collection trench located on the South side. Two sumps are provided for liquid collection and removal.
Construction Materials: Concrete floor, curbing, trench and sumps. Semstone high performance coating applied to the floor, trench, and sumps.

2. how the design promotes drainage or how containers are kept from contact with standing liquids in the containment system;

   Response: The Container Storage Building has been designed so that each storage cell has its own secondary containment system. Each cell is sloped to its individual trench to promote drainage and prevent the containers from contacting standing liquid. The trenches themselves are sloped to provide for conveyance to sumps for liquid collection and removal. Portable pumps will be utilized to pump out any collected material for proper disposal. Since the storage cells have provisions for drainage and collection/accumulation of liquids, containers will not come in contact with standing liquids in the containment system. Additionally, palletized storage is planned for all containers other than rolloff bins, thereby providing an added level of protection. The building perimeter has been designed with 6" containment curbing. All vehicular accessways are equipped with sloped ramps, thereby providing complete perimeter containment.

3. capacity of the containment system relative to the number and volume of containers to be stored;

   Response: The containment system has more than sufficient capacity to contain 10% of the total volume of containers, or the volume of the largest container, whichever is greater. A table summarizing the applicable container volume test, the maximum required container volume under the regulations and existing container volume supplied by the Container Storage Building is included in Appendix II. Containment volumes are provided on a per cell basis so as to prevent the possibility of commingling of incompatible wastes. Calculations documenting the containment volume by cell are also included in Appendix II.

4. provisions for preventing or managing run-on;

   Response: The Container Storage Building is a totally enclosed building; therefore, run-on management is not required. Run-on into the containment system is

prevented by means of the building's roof, walls, and perimeter curbing.

5. how accumulated liquids can be analyzed and removed to prevent overflow;

   Response: Since run-on into the Container Storage Building is not expected to occur, all accumulated liquid in the sumps will be assumed to be leakage from stored containers and managed as hazardous waste unless analytical results indicate otherwise. Accumulated liquid will only be sampled for detectable levels of waste in storage at the time liquid is found and then only spilled or leaked waste will be removed from the collection area in a timely manner so as to prevent overflow from the containment system in accordance with LAC 33:V.2111.B.5.

B. for storage areas that store containers holding wastes that do not contain free liquids, a demonstration of compliance with LAC 33:V.2111.C including:
   1. test procedures and results or other documentation or information to show that the wastes do not contain free liquids; and
   2. a description of how the storage area is designed or operated to drain and remove liquids or how containers are kept from contact with standing liquids.

   Response: Cytec acknowledges the above citation. Cytec provides a containment system as required by LAC 33:V.2111.B for the Container Storage Building.

C. sketches, drawings, or data demonstrating compliance with LAC 33:V.2113 (location of buffer zone and containers holding ignitable or reactive wastes) and LAC 33:V.2115.C (location of incompatible wastes), where applicable;

   Response: The Container Storage Building is located well in excess of 50' from the facility property line. The location of the Container Storage Building is depicted on the Hazardous Waste Management System Location Map included in Appendix J, Figure 2.

   Cytec will segregate all containers holding hazardous waste incompatible with waste in other containers by means of segregated storage/containment structures to prevent commingling of container contents and/or spills. The Container Storage Building is designed with six (6) segregated storage areas, each equipped with individual containment systems to prevent commingling of incompatible materials.

   The cell allocation and dimensions are provided in Appendix II and Appendix JJ. Wastes managed in containers are generated on an intermittent basis. The Container Storage Building has been designed to provide maximum environmental protection while allowing for a variety of storage conditions. If a particular type of hazardous waste has been generated in excess of its designated storage area capacity, then an alternate storage area may be used provided that incompatibles are separated by means of the segregated storage cell containment structures.

   The applicable restrictions on storage compatibility are:

   - **Designated flammables must be stored in the designated flammable cell only since the cell has an 8" masonry fire wall on the west side which acts as a**

barrier between flammable wastes and other wastes. Flammable wastes may not be stored in any other cell location. Examples of waste types which are restricted to the flammable storage location are included in Appendix JJ.

- **In no instance shall designated incompatibles be stored in the same containment structure. The table provided in Appendix JJ provides examples of incompatible materials.**

D. where incompatible wastes are stored or otherwise managed in containers, a description of the procedures used to ensure compliance with LAC 33:V.2107.A—C, and 1517.B—D.

Response: All containers used will be compatible with the hazardous waste to be stored. In general, most waste stored at the facility is compatible with steel containers and/or fiber packaging. Exceptions may be corrosive materials, such as acids or alkalines, which will be stored in polyethylene or other compatible containers. Compatibility of waste with containers is further insured via the facility's hazardous waste inspection program which requires observation and immediate correction for any evidence of container deterioration.

Containers holding hazardous waste will be kept closed during storage, except when it is necessary to add or remove waste.

Containers holding hazardous waste will not be opened, handled or stored in a manner which may rupture the container or cause it to leak. Containers will be inspected for any deterioration problems in compliance with applicable regulations.

Cytec will segregate all containers holding hazardous waste incompatible with waste in other containers by means of segregated storage/containment structures to prevent commingling of container contents and/or spills. The Container Storage Building is designed with six (6) segregated storage areas, each equipped with individual containment systems to prevent commingling of incompatible materials.

The cell allocation and dimensions are provided in Appendix II and Appendix JJ. Wastes managed in containers are generated on an intermittent basis. The Container Storage Building has been designed to provide maximum environmental protection while allowing for a variety of storage conditions. If a particular type of hazardous waste has been generated in excess of its designated storage area capacity, then an alternate storage area may be used provided that incompatibles are separated by means of the segregated storage cell containment structures.

The applicable restrictions on storage compatibility are:

- **Designated flammables must be stored in the designated flammable cell only since the cell has an 8" masonry fire wall on the west side which acts as a barrier between flammable wastes and other wastes. Flammable wastes may not be stored in any other cell location. Examples of waste types which are restricted to the flammable storage location are included in Appendix JJ.**

- **In no instance shall designated incompatibles be stored in the same**

containment structure. The table provided in Appendix JJ provides examples of incompatible materials.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:280 (April 1984), LR 18:1256 (November 1992).

§523. Specific Part II Information Requirements for Tanks

Except as otherwise provided in LAC 33:V.1901, owners and operators of facilities that use tanks to store or treat hazardous waste must provide the following additional information:

A. a written assessment that is reviewed and certified by an independent, qualified registered professional engineer as to the structural integrity and suitability for handling hazardous waste for each tank system, as required under LAC 33:V.1903 and 1905;

Response: Existing Tank Systems (LAC 33:V.1903)

The following Fortier hazardous waste tank systems were placed in hazardous waste service prior to July 14, 1986 and are therefore "existing" tank systems as defined by LAC 33:V.109:

Tank Number	Tank Name
100-5A	RCB Filter A (formerly referred to as NSB Filter A)
100-5B	RCB Filter B (formerly referred to as NSB Filter B)
100-5C	RCB Filter C (formerly referred to as NSB Filter C)
CF-401A	WW Cartridge Filter
CF-401B	WW Cartridge Filter
CF-401C	WW Cartridge Filter
CF-401D	WW Cartridge Filter
F-401A	WW Primary Filter A
F-401B	WW Primary Filter B
HRD-V50 A	MET Filter A
HRD-V50 B	MET Filter B
HRD-V50 C	MET Filter C
HRD-V50 D	MET Filter D
MF-307	Secondary Filter Feed Tank
T-500	MET Injection Tank
TA-403	Catalyst Settling Tank
TA-404	Primary Filter Feed Tank

All of the above tanks were provided with secondary containment meeting the requirements of LAC 33:V.1907 B-I prior to November 20, 1988. LAC 33:V.1903 therefore does not require that Cytec obtain a written assessment by an independent registered professional engineer of the structural integrity and suitability for handling hazardous waste of these tank systems.

New Tank Systems (LAC 33:V.1905)

The following Fortier hazardous waste tank systems were placed in hazardous waste service subsequent to July 14, 1986 and are therefore "new" tanks or tank systems as defined by LAC 33:V.109:

Tank No.	Tank Name	Status	Assessments
100-6	RCB / MET Backwash Tank	Replacement for existing tank	TA3, TA4
101-52	MMA Lab Collection Tank	New tank system (proposed)	TA9
MET-1	Miscellaneous Effluent Tank 1	Modification of existing tank	TA1
MET-2	Miscellaneous Effluent Tank 2	New tank system	TA1
F-401C	WW Secondary Filter	Replacement for existing filter	TA5, TA6
F-401D	WW Secondary Filter	Replacement for existing filter	TA2
TA-402	WWCB Well Injection Tank	Replacement for existing tank	TA7, TA8
TA-501A	WWCB Backwash Tank - North	New tank system	TA1
TA-501B	WWCB Backwash Tank - South	New tank system	TA1

Whether each tank was part of a new hazardous waste tank system or was a replacement for an existing tank or filter vessel in the same service is indicated in the above chart. Copies of assessments for each new tank or tank system certified by an independent, qualified registered professional engineer are included in Appendix KK, and are numbered for reference as indicated above.

Tank system assessment TA1 also includes a review of the three existing secondary containment structures which provide containment for all of the Fortier hazardous waste tanks with the exception of proposed MMA Lab Collection Tank 101-52. The design of the Tank 101-52 system includes a separate secondary containment structure.

Installation of the MMA Lab Collection Tank system was not completed nor was the tank system in service at the time of submission of this application, so an installation assessment for the 101-52 tank system had not been completed and was not available for inclusion with this application. Cytec has proposed to LDEQ that Cytec complete installation of the 101-52 tank system and be allowed to operate it subject to the accumulation time exclusion of LAC 33:V.1109.E.1 until this permit application is approved and a new permit issued. As part of this application Cytec is requesting that the 101-52 tank system be included as a permitted tank system. Tank system assessment TA9 is a design assessment for 101-52. An installation assessment meeting the requirements of this regulation will be obtained prior to the 101-52 tank system being placed in service.

B. dimensions and capacity of each tank;

Response: The dimensions and capacity of each Cytec Fortier tank which handles hazardous waste are indicated in Appendix LL, Table B-1.

Appendix LL, Table B-2 is an index of the drawings of each of the hazardous waste tanks which are included in Appendix MM this application to provide additional dimensional information.

C. descriptions of feed systems, safety cutoff, bypass systems, and pressure controls (e.g., vents);

Response:
100-5 A RCB (NSB) Filters
100-5 B
100-5 C

The RCB (Recovery Column Bottoms) filter (formerly known as the NSB or Net Stripper Bottoms filter) feed system starts with Recovery Bottoms pumps PP-820 A and B which remove liquid from the bottom of Recovery/Stripper Column AS-816 and send it to RCB/Demin Economizer TT-444 which transfers useful heat from the RCB material to a boiler feed water stream. The RCB material becomes a waste after leaving TT-444 and is piped via above ground piping directly to the inlets of the three RCB Filters, which are arranged in parallel. The RCB Filters treat the waste by removing solids from the liquid stream.

The RCB Filter safety cutoff system includes a computer-operated flow control valve downstream of the filter feed pumps and a number of manual shutoff and bypass valves. The shutoff and bypass valves provided allow for the shutoff and isolation of any individual RCB filter, or all three filters as may be necessary for safety or operational reasons. The filters are designed to operate full of liquid, so a cutoff system to prevent overfilling is not required.

The RCB Filter bypass system consists of manual valves and piping which can be arranged to allow bypassing of any individual RCB Filter for backwashing or other servicing, or bypassing of all three Filters so that the waste flows directly to the inlet of the MET filters, which is the normal destination for the liquid discharged from the RCB Filters.

The RCB Filters are pressure vessels which are designed to operate full of liquid and under pressure. They have a design pressure rating of 100 psig.

100-6 RCB / MET Backwash Tank

The feed system for the RCB / MET Backwash Tank consists of above ground piping which transports the water used to backwash the RCB and MET Filters from the filters to the Backwash Tank. Since the filters are pressure vessels and the Backwash Tank operates at essentially atmospheric pressure, the pressure of the "coag" water supply which is used to backwash the filters is sufficient to transport the backwash material from the filters to the Backwash Tank without the use of transfer pumps. The RCB / MET Backwash Tank can also receive potentially contaminated rainwater and any collected spill or leak material from the RCB Filter containment area sump pump P-NSBF and similar material from the T-500 tank containment area sump pump P-MEF.

The safety cutoff system for 100-6 includes an air-operated block valve which shuts and halts flow to the tank automatically when either of the two tank level

instruments detect that the tank level is approaching its capacity. The tank discharge pump also starts automatically when the tank level reaches 50 percent of capacity.

Tank 100-6 is not provided with permanent bypass connections. Flanged connections for the attachment of flexible hoses can be used if the tank must be taken out of service for a length of time which would interfere with required periodic backwashing of the RCB or MET Filters.

The RCB / MET Backwash Tank is provided with a nitrogen blanket system which maintains a slight (a few inches of water) positive pressure of inert nitrogen in the tank vapor space. The system includes pressure regulators which admit nitrogen to the vapor space when the pressure falls due to cooling or removal of liquid from the tank, and a conservation vent type relief valve which vents the tank vapors to a flare when the tank pressure rises due to heating or an increase in the tank liquid level. Emergency pressure and vacuum relief devices area also provided to prevent over- or under-pressuring of the tank due the failure of one of the tank primary pressure control devices.

CF-401 A Cartridge Filters
CF-401 B
CF-401 C
CF-401 D

The feed system for the Cartridge Filters consists of above ground piping from the discharge connections of Secondary Filters F-401 C and D. The discharge pressure of the Secondary Filters is high enough that no additional pumps are required to transport the waste liquid to and through the Cartridge Filters. The individual cartridge filter units operate in parallel and are provided with an automatic valving system which backwashes individual filter units one at a time when the filter differential pressure increases due to the build-up of solid material on the filter elements.

Safety cutoff provisions for the Cartridge Filters include manual block valves at the backwash discharge of each Secondary Filter and block valves at the inlet and discharge of the Cartridge Filter assembly. The cartridge filters are designed to operate full of liquid, so a safety cutoff system to prevent overfilling is not required.

A manual bypass valve and Cartridge Filter block valves are provided which allow waste liquid from the discharge of the Secondary Filters to flow directly to the WWCB Well Injection Tank when the Cartridge Filters must be removed from service for maintenance or other reasons.

The Cartridge Filters are pressure vessels designed to operate at 200 psig. Three safety relief valves set at 100 psig are located on the piping system upstream of the Filters to ensure that their design pressure is not exceeded.

F-401 A Primary Filters
F-401 B

The Primary Filters receive waste from Catalyst Settling Tank TA-403 and Primary Filter Feed Tank TA-404 via above ground piping from pumps PU-406 A, B, and C. The two Primary Filters are arranged in parallel and normally one is in operation with the other on standby or being backwashed to remove accumulated solids filtered from the waste stream.

The safety cutoff system for the Primary Filters includes an automatic flow control valve at the discharge of the inlet feed pumps and manual block and bypass valves which can be arranged to shut off and isolate either or both Filters. F-401 A and B are designed to operate full of liquid, so a safety cutoff system to prevent overfilling is not required.

Manual block and bypass valves are provided so that flow can be bypassed around either or both Primary Filters. When both filters are bypassed the waste flows directly to the inlet of heat exchangers E-401 A and B, which are the normal discharge point for the filters.

The design operating pressure of the Primary Filters is 100 psi. The Primary Filters are protected against overpressure by a three inch pressure relief valve located on the filter inlet piping and by an additional 3/4 inch relief valve located on the discharge piping of each filter. The set pressure of all four relief valves is 100 psi.

F-401 C Secondary Filters
F-401 D

The Secondary Filters receive waste from Secondary Filter Feed Tank MF-307 via above ground piping from pumps PU-404 A and B. The two Secondary Filters are arranged in parallel and normally one is in operation with the other on standby or being backwashed to remove accumulated solids filtered from the waste stream.

The safety cutoff system for the Secondary Filters includes an automatic flow control valve at the discharge of the inlet feed pumps and manual block and bypass valves which can be arranged to shut off and isolate either or both Filters. F-401 C and D are designed to operate full of liquid, so a safety cutoff system to prevent overfilling is not required.

Manual block and bypass valves are provided so that flow can be bypassed around either or both Secondary Filters. When both filters are bypassed the waste flows directly to the inlet of Cartridge Filters CF-401, which is the normal discharge point for the filters.

The design operating pressure of the Secondary Filters is 100 psi. The Secondary Filters are protected against overpressure by a three inch pressure relief valve located on the filter inlet piping and by an additional 3/4 inch relief valve located

on the discharge piping of each filter. The set pressure of all four relief valves is 100 psi.

HRD-V50 A MET Filters
HRD-V50 B
HRD-V50 C
HRD-V50 D

The feed system for the four MET filters consists of above ground piping from the MET-1 and MET- 2 Tanks (via Waste Water Pumps P-604 A, B, C, and D) and various other waste sources which are tied into the MET Tank discharge piping, including the filtered waste discharge stream from RCB Filters 100-5 A, B, and C. The MET filters are arranged in parallel and the number in service at any given time depends on the waste water flow rate and operating conditions. Filters not in service are either being backwashed to remove accumulated solids or are on standby.

The safety cutoff system for the MET Filters includes automatic pressure control valves on the discharge of the Waste Water Pumps, automatic shutdown provisions for the Waste Water Pump motors, flow control valves on the inlet to each Filter, and manual block and bypass valves which allow any individual filter or all filters to be isolated and removed from service. The MET Filters are designed to operate full of liquid, so a safety cutoff system to prevent overfilling is not required.

Automatic flow control valves for each filter and manual block and bypass valves allow any or all of the MET Filters to be bypassed and isolated from service. When all of the MET Filters are bypassed the combined MET / RCB waste stream flows directly to the inlet of MET Injection Tank T-500, which is the normal destination for the filtered waste discharge of the MET Filters.

The design operating pressure of the MET Filters is 150 psi. The MET Filters are protected against overpressure by the Waste Water Pump pressure control valves, a four inch pressure relief valve located on the common filter inlet piping, and by individual 1-1/2 or 2 inch relief valves located on each filter. Set pressure of the four inch relief valve is 150 psi, while the smaller relief valves are all set at 125 psi.

MET-1 MET Tank 1

The feed system for the MET-1 Tank consists of an extensive aboveground header piping system which collects waste and potentially contaminated water from a number of locations within the Fortier facility. Each waste source is provided with a pump which provides sufficient pressure to transport the waste to the MET-1 and MET-2 Tanks, which are operated in parallel.

The safety cutoff system for the MET-1 Tank consists of a level indicator monitored by operating personnel, high level alarms from the level indicator and a separate level switch, and manual valves for diverting incoming waste to the MET-2 Tank.

The bypass system for the MET-1 Tank consists of manual valves which shut off the flow of waste to MET-1 and divert the flow to MET-2.

MET-1 is an atmospheric pressure tank. It is provided with a pressure/vacuum vent valve to limit the flow of vapors from the tank while preventing over- or under-pressuring of the tank. The tank vent is also provided with a scrubber to further reduce organic emissions to the atmosphere. Additional emergency pressure and vacuum relief valves are also provided to prevent damage to the tank in the event of emergency conditions or the failure of the normal pressure or vacuum relief valves. MET-1 is also provided with an overflow nozzle and pipe to prevent damage due to overfilling of the tank. The overflow pipe is equipped with a liquid seal to prevent vapors from venting through the overflow.

MET-2 MET Tank 2

The feed system for the MET-2 Tank consists of an extensive aboveground header piping system which collects waste and potentially contaminated water from a number of locations within the Fortier facility. Each waste source is provided with a pump which provides sufficient pressure to transport the waste to the MET-1 and MET-2 Tanks, which are operated in parallel.

The safety cutoff system for the MET-2 tank consists of a level indicator monitored by operating personnel, high level alarms from the level indicator and a separate level switch, and manual valves for diverting incoming waste to the MET-1 Tank. The bypass system for the MET-2 tank consists of manual valves which shut off the flow of waste to MET-2 and divert the flow to MET-1.

MET-2 is an atmospheric pressure tank. It is provided with a pressure/vacuum vent valve to limit the flow of vapors from the tank while preventing over- or under-pressuring of the tank. The tank vent is also provided with a scrubber to further reduce organic emissions to the atmosphere. Additional emergency pressure and vacuum relief valves are also provided to prevent damage to the tank in the event of emergency conditions or the failure of the normal pressure or vacuum relief valves. MET-2 is also provided with an overflow nozzle and pipe to prevent damage due to overfilling of the tank. The overflow pipe is equipped with a liquid seal to prevent vapors from venting through the overflow.

MF-307 Secondary Filter Feed Tank

The primary feed system for the Secondary Filter Feed Tank consists of above ground piping from the discharge of Primary Filters F-401 A and B and WWCB heat exchangers E-401 A and B to the inlet nozzle of the Secondary Filter Feed Tank and piping from the regeneration discharge connections of Oxazole Adsorbers MS-550 A and B to MF-307 . The Primary Filter and Oxazole regeneration discharge pressures are sufficient to move the wastes to MF-307 without the need for additional transfer pumps. Other tank inlet connections and piping are also provided for occasional use as needed during maintenance or other unusual operating conditions.

The safety cutoff system for MF-307 includes a level indicator and level alarm which will alert operating personnel that the tank level is approaching capacity and manual block valves which can be used to stop the flow of waste into and out of the tank.

The bypass system for the Secondary Filter Feed Tank incudes manual valves which can be positioned to stop the flow of waste into MF-307 and divert it either directly to the Secondary Filter Feed Tank discharge pumps PU-404 A and B, or for some waste streams divert them to the Catalyst Settling Tank or Primary Filter Feed Tank.

MF-307 is an atmospheric pressure tank. It is provided with a pressure/vacuum vent valve to limit the flow of vapors from the tank while preventing over- or under-pressuring of the tank. The tank vent is also provided with a scrubber to further reduce organic emissions to the atmosphere. Additional emergency pressure and vacuum relief valves are also provided to prevent damage to the tank in the event of emergency conditions or the failure of the normal pressure or vacuum relief valves.

T-500 MET Injection Tank

The feed system for the MET Injection Tank consists of above ground piping from the filtered liquid discharge connections of the four MET Filters to the MET Injection Tank inlet nozzle. The discharge pressure of the Waste Water Pumps adjacent to the MET-1 and MET-2 tanks is sufficient to move the waste to and through the MET Filters and into the MET Injection Tank without the need for additional transfer pumps.

The safety cutoff system for T-500 includes two tank level indicators and alarms which will alert operating personnel that the tank is approaching its capacity, and manual block valves to stop the flow of waste into the tank.

The bypass system for T-500 consists of manual valves and piping which can be aligned to stop flow to T-500 and bypass the MET Filter discharge directly to the suction connections of the Well Injection Pumps which are the normal discharge point for T-500.

The MET Injection Tank is an atmospheric pressure tank. It is provided with a pressure/vacuum vent valve to limit the flow of vapors from the tank while preventing over- or under-pressuring of the tank. The tank vent is also provided with a scrubber to further reduce organic emissions to the atmosphere. Additional emergency pressure and vacuum relief valves are also provided to prevent damage to the tank in the event of emergency conditions or the failure of the normal pressure or vacuum relief valves.

TA-402 WWCB Well Injection Tank

The feed system for the WWCB Well Injection Tank consists of piping from the

discharge connection of Cartridge Filters CF-401 to the inlet nozzle of the WWCB Well Injection Tank. The discharge pressure of the Secondary Filter Feed Pumps is sufficient to move the waste to and through the Secondary Filter and Cartridge Filter and into the WWCB Well Injection Tank without the need for additional transfer pumps.

The safety cutoff system for TA-402 includes a tank level indicator and alarm which will alert operating personnel that the tank is approaching its capacity, and manual block valves to stop the flow of waste into the tank.

The bypass system for TA-402 consists of manual valves and piping which can be aligned to stop flow into TA-402 and bypass the Cartridge Filter discharge directly to the suction connections of the WWCB Well Injection Pumps which are the normal discharge point for TA-402.

The WWCB Well Injection Tank is an atmospheric pressure tank. It is provided with a pressure/vacuum vent valve to limit the flow of vapors from the tank while preventing over- or under-pressuring of the tank. The tank vent is also provided with a scrubber to further reduce organic emissions to the atmosphere. Additional emergency pressure and vacuum relief valves are also provided to prevent damage to the tank in the event of emergency conditions or the failure of the normal pressure or vacuum relief valves.

TA-403 Catalyst Settling Tank

The Catalyst Settling Tank receives WWCB waste through above ground piping from the discharge of Waste Water Column Bottoms Cooler TT-435. TT-435 receives WWCB material from Waste Water Columns AS-102 and AS-802 via Waste Water Column Bottoms Pumps PP-812 A and B. Some additional material can be received from TT-875, the side boiler for Refrigeration Ammonia Chiller TT-841. The Catalyst Settling Tank also receives WWCB Filter backwash material from the North and South WWCB Backwash Tanks. The Catalyst Settling Tank is operated in parallel with the Primary Filter Feed Tank.

The safety cutoff system for TA-403 includes a tank level indicator and alarm which will alert operating personnel that the tank is approaching its capacity, and manual block valves to stop the flow of waste into the tank.

The bypass system for TA-403 consists of manual valves and piping which can be aligned to stop flow into TA-403 and divert the WWCB waste flow to Primary Filter Feed Tank TA-404. An alternative bypass arrangement is also possible in which flow is bypassed to Secondary Filter Feed Tank MF-307.

The Catalyst Settling Tank is an atmospheric pressure tank. It is provided with a pressure/vacuum vent valve to limit the flow of vapors from the tank while preventing over- or under-pressuring of the tank. The tank vent is also provided with a scrubber to further reduce organic emissions to the atmosphere. Additional emergency pressure and vacuum relief valves are also provided to prevent damage

to the tank in the event of emergency conditions or the failure of the normal pressure or vacuum relief valves.

TA-404 Primary Filter Feed Tank

The Primary Filter Feed Tank receives WWCB waste through above ground piping from the discharge of Waste Water Column Bottoms Cooler TT-435. TT-435 receives WWCB material from Waste Water Columns AS-102 and AS-802 via Waste Water Column Bottoms Pumps PP-812 A and B. Some additional material can be received from TT-875, the side boiler for Refrigeration Ammonia Chiller TT-841. The Primary Filter Feed Tank also receives WWCB Filter backwash material from the North and South WWCB Backwash Tanks. The Primary Filter Feed Tank is operated in parallel with the Catalyst Settling Tank.

The safety cutoff system for TA-404 includes a tank level indicator and alarm which will alert operating personnel that the tank is approaching its capacity, and manual block valves to stop the flow of waste into the tank.

The bypass system for TA-404 consists of manual valves and piping which can be aligned to stop flow into TA-404 and divert the WWCB waste flow to Catalyst Settling Tank TA-403. An alternative bypass arrangement is also possible in which flow is bypassed to Secondary Filter Feed Tank MF-307.

The Primary Filter Feed Tank is an atmospheric pressure tank. It is provided with a pressure/vacuum vent valve to limit the flow of vapors from the tank while preventing over- or under-pressuring of the tank. The tank vent is also provided with a scrubber to further reduce organic emissions to the atmosphere. Additional emergency pressure and vacuum relief valves are also provided to prevent damage to the tank in the event of emergency conditions or the failure of the normal pressure or vacuum relief valves.

TA-501 A WWCB Backwash Tank - North

The North WWCB Backwash Tank receives filter backwash material from Primary Filters F-401 A and B and Secondary Filters F-401 C and D via above ground piping. The filter backwash discharge pressure is high enough to move the waste to the Backwash Tank without the need for an additional transfer pump. The Backwash Tank can also receive potentially contaminated rainwater and any spill or leak material from the containment area around the Backwash Tanks from containment area Sump Pumps P-WWS A and B. The Backwash Tank can also receive rainwater and other material from the WWCB Well Injection Tank area containment sump via Sump Pumps PU-401 A and B. The North and South Backwash Tanks are essentially identical and are operated in parallel with one normally being in service and the other on standby/settling.

The safety cutoff system for the North WWCB Backwash Tank consists of two level indicators monitored by operating personnel, high level alarms from the level indicators and a separate level switch, and manual valves for diverting incoming

waste to the South WWCB Backwash Tank.

The bypass system for the North WWCB Backwash Tank consists of manual valves which shut off the flow of waste to the North WWCB Backwash Tank and divert the flow to the South WWCB Backwash Tank.

The North WWCB Backwash Tank is an atmospheric pressure tank. It is provided with a pressure/vacuum vent valve to limit the flow of vapors from the tank while preventing over- or under-pressuring of the tank. The tank vent is also provided with a scrubber to further reduce organic emissions to the atmosphere. Additional emergency pressure and vacuum relief valves are also provided to prevent damage to the tank in the event of emergency conditions or the failure of the normal pressure or vacuum relief valves.

TA-501 B WWCB Backwash Tank - South

The South WWCB Backwash Tank receives filter backwash material from Primary Filters F-401 A and B and Secondary Filters F-401 C and D via above ground piping. The filter backwash discharge pressure is high enough to move the waste to the Backwash Tank without the need for an additional transfer pump. The Backwash Tank can also receive potentially contaminated rainwater and any spill or leak material from the containment area around the Backwash Tanks from containment area Sump Pumps P-WWS A and B. The Backwash Tank can also receive rainwater and other material from the WWCB Well Injection Tank area containment sump via Sump Pumps PU-401 A and B. The North and South Backwash Tanks are essentially identical and are operated in parallel with one normally being in service and the other on standby/settling.

The safety cutoff system for the South WWCB Backwash Tank consists of two level indicators monitored by operating personnel, high level alarms from the level indicators and a separate level switch, and manual valves for diverting incoming waste to the North WWCB Backwash Tank.

The bypass system for the South WWCB Backwash Tank consists of manual valves which shut off the flow of waste to the South WWCB Backwash Tank and divert the flow to the North WWCB Backwash Tank.

The South WWCB Backwash Tank is an atmospheric pressure tank. It is provided with a pressure/vacuum vent valve to limit the flow of vapors from the tank while preventing over- or under-pressuring of the tank. The tank vent is also provided with a scrubber to further reduce organic emissions to the atmosphere. Additional emergency pressure and vacuum relief valves are also provided to prevent damage to the tank in the event of emergency conditions or the failure of the normal pressure or vacuum relief valves.

101-52 MMA Lab Collection Tank

The MMA Lab Collection system is a proposed tank system that Cytec has

requested approval to install and operate as a "less than 90 day" accumulation time exemption tank until such time as this permit application is approved. The 101-52 tank system construction and installation had not been completed nor was the tank system is service at the time of submission of this application.

The feed system for the proposed MMA Lab Collection Tank 101-52 will consist of gravity-flow piping with "P-trap" seal legs from the MMA laboratory sinks.

Manual block valves will be provided to shut off the flow of waste to the tank when necessary due to emergency, maintenance, or other reasons.

Since the flow of waste to the tank from the lab sinks can be controlled as needed, no bypass system is required or will be provided for this tank.

Tank 101-52 will be designed and constructed as a pressure vessel with a maximum design pressure of 50 psi. However, it will be operated as an atmospheric pressure tank and will be provided with a pressure/vacuum conservation vent valve to maintain it at nominally atmospheric pressure. An 101-52 open vent with a water seal leg will also be provided to furnish additional emergency venting capacity. The water seal leg on the open vent will prevent venting through the open vent unless there is a problem with the normal vent.

D. a diagram of piping, instrumentation, and process flow for each tank system;

Response: Process Flow (PFD) and Piping and Instrumentation (P&ID) Diagrams for each Fortier hazardous waste tank system are identified in Appendix LL, Table D-1 and included in Appendix MM.

E. a description of materials and equipment used to provide external corrosion protection, as required under LAC 33:V.1905.A.3.b;

Response: With the exception of a short length of the inlet piping for MMA Lab Collection Tank 101-52, no waste system tanks or ancillary equipment items are in contact with soil or with groundwater. Components not in contact with soil or with groundwater do not require special corrosion protection measures to resist corrosion due to those elements or to meet the requirements of LAC 33:V.1905.A.3.b.

An approximately six foot long section of the inlet piping for MMA Lab Collection Tank 101-52 is located below grade. The section of pipe which is located below grade is of double-wall construction with an inner primary containment pipe and an outer secondary containment pipe. Both the primary and secondary containment pipes are constructed of type 316 stainless steel (a corrosion-resistant material) to provide resistance to corrosion due to contact with concrete, soil, groundwater, or the waste. The corrosion resistance method and material used was reviewed and approved by a corrosion expert. This section therefore also meets the requirements of LAC 33:V.1905.A.3.b.

Above ground carbon steel pipe is painted to provide external corrosion

protection. Stainless steel pipe is inherently resistant to external and atmospheric corrosion.

F. for new tank systems, a detailed description of how the tank system(s) will be installed in compliance with LAC 33:V.1905.B, C, D, and E;

Response: The following Fortier hazardous waste tank systems were placed in hazardous waste service subsequent to July 14, 1986 and are therefore "new" tanks or tank systems as defined by LAC 33:V.109:

Tank No.	Tank Name	Status	Installation Assessments
100-6	RCB / MET Backwash Tank	Replacement for existing tank	TA4
MET-1	Miscellaneous Effluent Tank 1	Modification of existing tank	TA1
MET-2	Miscellaneous Effluent Tank 2	New tank system	TA1
F-401C	WW Secondary Filter	Replacement for existing filter	TA6
F-401D	WW Secondary Filter	Replacement for existing filter	TA2
TA-402	WWCB Well Injection Tank	Replacement for existing tank	TA8
TA-501A	WWCB Backwash Tank - North	New tank system	TA1
TA-501B	WWCB Backwash Tank - South	New tank system	TA1

Installation all of these hazardous waste systems is complete and new system installation inspections and assessments meeting the requirements of LAC 33:V.1905.B, C, D, and E have been performed and are documented in the assessment reports referenced above and included in Appendix KK.

The proposed MMA Lab Collection Tank system (101-52) is not completely installed and is not presently in service. Prior to the MMA Lab Collection Tank system being placed in service the installation of the system components will be inspected by an independent, qualified Louisiana registered professional engineer who is experienced in the proper installation of tank systems. The tank system installation inspection will include inspection for the presence of weld breaks, punctures, scrapes of protective coatings, cracks, corrosion, structural damage, or other inadequate construction or installation. All discrepancies disclosed during the inspection will be remedied before the tank system is placed in service.

The underground portion of the tank inlet piping has been installed and has been provided with a backfill material that has been installed so that the backfill is placed completely around the pipe and compacted to ensure that the piping is fully and uniformly supported.

The new tank and ancillary equipment will be tested for tightness before being placed in service. If the tank or a system component is found not to be tight, all repairs necessary to remedy the leak(s) in the system will be performed before the tank system is placed in service.

All MMA Lab Collection Tank system ancillary equipment will be supported and protected against physical damage and excessive stress due to settlement, vibration, expansion, or contraction before being placed in service. Pipe and equipment support will meet the requirements of ANSI/ASME B31.3.

G. detailed plans and description of how the secondary containment system for each tank system is or will be designed, constructed, and operated to meet the requirements of LAC 33:V.1907.A, B, C, D and F;

Response: All of the existing hazardous waste tanks at the Fortier facility are provided with secondary containment systems. Tank 101-52, the new MMA Lab Collection Tank, will be provided with secondary containment before it is placed in service. All of the tank secondary containment systems, including that for 101-52, are above ground dike or vault structures whose floors and walls are constructed of reinforced concrete. A total of four vault structures provide secondary containment for all of the Fortier hazardous waste tanks and the non-exempt tank system components located within the vault areas. Appendix LL, Table G-1 indicates the vault area which provides secondary containment for each waste tank, the gross capacity and net rainfall capacity of the vault areas, and the drawing numbers for plan views of the containment areas in Appendix MM. The net rainfall capacity values listed are the amount of rainfall the containment area can hold while simultaneously holding the full nominal capacity of each tank listed. Appendix LL, Table G-2 indicates the tank location, tank bottom leak detection method, and the drawing numbers for details of each tank containment system in Appendix MM. Copies of the tank system containment drawings referenced are included with this application.

All of the existing and new tank secondary containment systems have been (or in the case of the MMA Lab Collection system, will be) designed, installed, and operated so as to prevent any migration of wastes or accumulated liquid out of the system to the soil, groundwater or surface water at any time during the use of the tank system. All of the secondary containment systems are or will be capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

All of the existing and new tank secondary containment systems are or will be constructed of or are lined with materials that are compatible with the wastes which are placed in the respective tank systems. The secondary containment systems have sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrological forces), physical contact with the wastes to which they are exposed, climatic conditions, and the stress of daily operation (including stresses from nearby vehicular traffic).

All of the existing and new tank secondary containment systems are placed on a foundation or base which is capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system, and is capable of preventing failure due to settlement, compression, or uplift.

All of the existing and new tank secondary containment systems are provided with leak-detection systems that are designed and operated so that they will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours. Visual detection of spilled or leaked liquids retained by the system secondary containment vault and/or tank bottom leak detection collection pots during daily documented inspections of the tanks and containment areas by

operating personnel is the leak detection method used.

All of the existing and new tank secondary containment systems are sloped and designed and operated to drain and remove liquids resulting from leaks, spills, and precipitation. All of the containment vault areas are provided with one or more collection areas or sumps and one or more pumps which transfer accumulated liquid from the vault to an on-site hazardous waste tank for appropriate treatment and disposal. Accumulated precipitation and spilled or leaked waste are removed from the secondary containment systems within 24 hours under normal circumstances. If a situation should occur where conditions do not permit removal of accumulated liquids within 24 hours, they will be removed in as timely a manner as is possible to prevent harm to human health and the environment.

Non-exempt hazardous waste system ancillary equipment items located within the four secondary containment vault areas are provided with secondary containment by the containment vault. Non-exempt hazardous waste system ancillary equipment items located outside the secondary containment vault areas have been included in a secondary containment variance granted by LDEQ on November 20, 1991 in accordance with LAC 33:V.1907.G.2. Transmittals between LDEQ and Cytec (formerly American Cyanamid Company) dated January 15, 1992, November 20, 1991, and November 18, 1988 regarding the secondary containment variance are included in Appendix G.

H. for tank systems for which a variance from the requirements of LAC 33:V.1907 is sought (as provided by LAC 33:V.1907.G):

1. detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous waste or hazardous constituents into the groundwater or surface water during the life of the facility, or
2. a detailed assessment of the substantial present or potential hazards posed to human health or the environment should a release enter the environment;

Response: The Cytec Fortier hazardous waste pipeline system was granted a secondary containment variance by LDEQ on November 20, 1991 in accordance with LAC 33:V.1907.G.2. Transmittals between LDEQ and Cytec (formerly American Cyanamid Company) dated January 15, 1992, November 20, 1991, and November 18, 1988 regarding the secondary containment variance are included in Appendix G.

I. descriptions of controls and practices to prevent spills and overflows, as required under LAC 33:V.1909.B; and

Response: A primary spill control method used at Fortier is the use of permanent hard-piped connections for all normal waste transfer operations. Check valves, automatic fail-closed valves, and block valves are also used to control the flow of waste streams. The use of permanent waste transfer connections eliminates the potential for spills as hoses or other temporary transfer means are connected and disconnected. If emergency or other abnormal operating conditions require the use of hoses or temporary transfer methods, procedures and equipment are used to

minimize the potential for spills.

All Fortier waste tanks are provided with at least one level sensing device and one high level alarm. The level sensing devices provide plant operators with a continuously available indication of tank liquid level. Operating personnel are required to observe and record all waste tank levels at least once per operating shift. The plant is staffed 24 hours per day, so operators are present or available during all waste transfer operations. The tank high level alarms furnished automatically provide operators with an audible warning that a tank level is approaching capacity. Plant operating procedures require operators to stop the flow of liquid to the tank or take other appropriate actions to prevent overfilling of a tank in the event of a tank high level alarm indication. Some tanks are also provided with automatic flow cut off devices or other automatic means to prevent overfilling.

All of the Fortier waste tanks are provided with roofs or other form of covering and are thus not subject to overtopping by wave or wind action or by precipitation.

J. for tank systems in which ignitable, reactive, or incompatible wastes are to be stored or treated, a description of how operating procedures and tank system and facility design will achieve compliance with the requirements of LAC 33:V.1917 and 1919.

Response: All wastes are stored and treated in such a way that they are protected from any material or conditions that might cause the waste to ignite or react. Operating procedures and controls are used to ensure that incompatible wastes are not placed in the same tank system.

Wastes are protected from exposure to potential sources of ignition through controls on potential ignition sources and the use of closed waste treatment, storage, and transfer facilities. No smoking is permitted inside the plant fence except in designated safe locations. All visitors are reminded of this rule and are monitored for compliance. In addition, "No Smoking" signs are posted in critical areas as an added reminder to all visitors, contractors, and employees.

Cutting, burning, welding, and other spark-producing activities are controlled through the use of a Safety Work Permit System which requires appropriate precautions and checks before and during such work. A special "hot work" permit section must be completed in addition to the standard safety work section and all "hot work" must be authorized only by personnel qualified to approve such work.

Waste tanks, vessels, and piping are grounded to prevent possible ignition from accumulated static electricity charges. Tank vapor spaces are vented through normally closed conservation vents which meet API 2000 and 2210 requirements for prevention of flame spread into the vapor space.

The only "reactive" (D003) hazardous waste streams generated and managed at the Fortier Plant are some process wastes that contain cyanides which may be released at a low pH. Controls and procedures used to segregate incompatible streams and prevent any hazardous interaction include:

1. **Wastes are transferred to tanks via pipelines which are used solely for specific wastes designated for the tanks. Transfer of wastes in this hard-piped system does not permit the commingling of incompatible, reactive, or ignitable wastes.**

2. **Controls and procedures are used to ensure that acidic hazardous wastes are not sent to a waste tank or treatment vessel which may contain cyanide-bearing wastes unless the acidic waste has been neutralized by a pH control system.**

3. **The MET 1 and MET 2 tanks, which may receive miscellaneous wastes containing low levels of cyanides, are kept at a basic pH by a pH control system. Their large volumes (one million and two million gallons, respectively) also provide for substantial dilution and buffering of incoming waste streams.**

4. **Potentially incompatible wastes which are disposed of by deepwell injection are sent to separate wells.**

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:280 (April 1984), LR 13:433 (August 1987) LR 16:220 (March 1990), LR 16:614 (July 1990).

§525. Specific Part II Information Requirements for Surface Impoundments

Except as otherwise provided in LAC 33:V.105.D and 1501 and 305.B and C, owners and operator of facilities that treat, store or dispose of hazardous waste in surface impoundments must provide the following additional information:

Response: The requirements of LAC 33:V.525 do not apply to Cytec because Cytec does not operate surface impoundments to treat, store, or dispose of hazardous waste, nor does Cytec anticipate operating surface impoundments to treat, store, or dispose of hazardous waste.

Cytec previously operated five (5) hazardous waste surface impoundments identified as:

Impoundment 1;
Impound 3;
North Wastewater Column Bottoms Backwash Pit;
South Wastewater Column Bottoms Backwash Pit;
Deep Well Backwash Pit.

These five (5) surface impoundments have been closed and LDEQ has accepted the closure certifications. A copy of LDEQ's letters documenting acceptance of closure dated June 7, 1989, January 15, 1991, and January 30, 1991 are included in Appendix C.

Cytec has completed eight (8) years of post closure monitoring of Impoundments 1 and 3. LDEQ issued Cytec a Post-Closure permit to address post closure core requirements.

The North Wastewater Column Bottoms Backwash Pit, South Wastewater Column Bottoms Backwash pit, and Deep Well Backwash Pit were "clean-closed" and no longer subject to regulation under RCRA. However, ground water monitoring is being performed in the area of these three (3) surface impoundments under a Ground Water Monitoring Agreement between Cytec and LDEQ. A copy of this agreement is included in Appendix B.

§527. Specific Part II Information Requirements for Waste Piles

Except as otherwise provided in LAC 33:V.105.D, 1501, and LAC 33:V.305.B and C, owners and operators of facilities that treat or store hazardous waste in waste piles must provide the following additional information:

Response: The requirements of LAC 33LV.527 do not apply to Cytec because Cytec does not currently store of treat hazardous waste in piles, nor does Cytec anticipate storing or treating hazardous waste in piles.

§529. Specific Part II Information Requirements for Incinerators

Except as LAC 33:V.Chapter 31 provides otherwise, owners and operators of facilities that incinerate hazardous waste must fulfill the requirements of Subsection A, B or C of this Section.

Response: The requirements of LAC 33:V.529 do not apply to Cytec because Cytec does not currently operate facilities to burn hazardous waste, nor does Cytec anticipate operating facilities to burn hazardous waste.

Cytec previously operated two (2) hazardous waste incinerators. In 1984, Cytec closed the two (2) hazardous waste incinerators and submitted the closure certification to LDEQ. A copy of LDEQ's letter dated November 29, 1984 acknowledging closure of the two (2) hazardous waste incinerators is included in Appendix NN.

§530. Specific Part II Information Requirements for Process Vents

Except as otherwise provided in LAC 33:V.1501, owners and operators of facilities that have process vents to which LAC 33:V.Chapter 17, Subchapter A applies must provide the following additional information:

Response: The requirements of LAC 33:V.530 do not apply to Cytec because Cytec does not currently operate or anticipate operating process vents associated with distillation, fractionation, thin film evaporation, solvent extraction, or air or steam stripping operations that manage hazardous wastes with organic concentrations of at least 10 parts per million by weight (ppmw).

§531. Specific Part II Information Requirements for Land Treatment Facilities

Except as otherwise provided in LAC 33:V.105.D, 1501, and 305.B and C, owners and operators of facilities that use land treatment to dispose of hazardous waste must provide the following additional information:

Response: The requirements of LAC 33:V.531 do not apply to Cytec because Cytec does not currently treat or dispose of hazardous waste in land treatment units, nor does Cytec anticipate treating or disposing of hazardous waste in land treatment units.

§532. Special Part II Information Requirements for Drip Pads

A. Except as otherwise provided by LAC 33:V.Chapter 15, owners and operators of hazardous waste treatment, storage, or disposal facilities that collect, store, or treat hazardous waste on drip pads must provide the following additional information:

Response: The requirements of LAC 33:V.532 do not apply to Cytec because Cytec does not currently use or anticipate using new or existing drip pads to convey treated wood drippage, precipitation, and/or surface water run-on to an associated collection system.

§533. Specific Part II Information Requirements for Landfills

Except as otherwise provided in LAC 33:V.105.D, 1501, and 305.B and C, owners and operators of facilities that dispose of hazardous waste in landfills must provide the following additional information:

Response: The requirements of LAC 33:V.533 do not apply to Cytec because Cytec does not currently dispose of hazardous waste in landfills, nor does Cytec anticipate disposing of hazardous waste in landfills.

§534. Specific Part II Information Requirements for Miscellaneous Units

Except as otherwise provided in LAC 33:V.3201, owners and operators of facilities that treat, store, or dispose of hazardous waste in miscellaneous units must provide the following additional information:

Response: The requirements of LAC 33:V.534 do not apply to Cytec because Cytec does not treat, store, or dispose of hazardous was in miscellaneous units, nor does Cytec anticipate treating, storing, or disposing of hazardous waste in miscellaneous units.

§535. Specific Part II Information Requirements for Boilers and Industrial Furnaces Burning Hazardous Waste for Energy or Material Recovery and not for Destruction

Response: The requirements of LAC 33:V.535 do not apply to Cytec because Cytec does not currently operate a Boiler and Industrial Furnace burning hazardous waste for energy or material recovery and not for destruction, nor does Cytec anticipate operating a Boiler and Industrial Furnace burning hazardous waste for energy or material recovery and not for destruction.

§536. Specific Part II Information Requirements for Equipment

Except as otherwise provided in LAC 33:V.1501, owners and operators of facilities that have equipment to which LAC 33:V.Chapter 17, Subchapter B applies must provide the following additional information.

A. For each piece of equipment to which LAC 33:V.Chapter 17, Subchapter B applies, the following information must be provided:

1. equipment identification number and hazardous waste management unit identification;

   Response: The equipment identification or tag number and hazardous waste management unit identification or location for each piece of equipment subject to LAC 33:V.Chapter 17.Subpart B is provided in Appendix OO. The equipment which has the potential to manage hazardous waste with organic concentrations of at least ten (10) percent by weight was formerly ancillary to the Aceto Surge Tank MS-505. However, the Aceto Surge Tank MS-505 was taken out of service in February, 1997 and the Closure Certification was approved by LDEQ on December 24, 1997. The equipment is no longer associated with a specific hazardous waste management unit, but is now part of the hazardous waste tank system ancillary equipment.

2. approximate locations within the facility (e.g., identify the hazardous waste management unit on a facility plot plan);

   Response: The approximate location of the hazardous waste tank system ancillary equipment within the facility is identified on the Hazardous Waste Management System Location Map in Appendix J, Figure 2 in the vicinity northwest of the Recovery Column Bottoms (RCB) Pretreatment System.

3. type of equipment (e.g., a pump or pipeline valve);

   Response: The type of equipment consists of valves, pumps, potential open ended valves and lines, and flanges. The type of equipment is specified on the list included in Appendix OO.

4. percent by weight total organics in the hazardous waste stream at the equipment;

   Response: The percent by weight total organics in the hazardous waste stream at the equipment was analyzed in 1990 and determined to contain 5.1% Total Organic Carbon (TOC) by Method 9060 and approximately 11% organics by Gas Chromatography (GC). Despite the fact that the GC results indicated the organic content to be near the regulatory limit of 10% by weight and the Method 9060 results indicated the TOC concentration to be well below the 10% regulatory limit, it was determined that the stripper overheads line and associated equipment would be subject to these regulations because the organic concentration in the stripper overheads has the potential to exceed the 10% regulatory limit. Since 1990 Cytec has used generator knowledge and process material mass balances to confirm that the organic concentration can still exceed 10% by weight.

5. hazardous waste state at the equipment (e.g., gas/vapor or liquid); and

   Response: The hazardous waste is in a liquid state at the point of contact with the equipment.

6. method of compliance with the standard (e.g., "monthly leak detection and repair" or "equipped with dual mechanical seals").
   Response: Cytec complies with the standard by performing monthly leak detection and repair for accessible components and annual monitoring for inaccessible components that are difficult to monitor.

   Cytec has elected to consolidate those components subject to regulation under LAC 33:V. Chapter 17. Subchapter B into the monitoring program conducted in compliance with 40 CFR 63 Subpart H as of July 1, 1998 as stated in the letter from Cytec to LDEQ dated February 19, 1998 and approved by LDEQ by letter dated April 15, 1998. LDEQ and EPA signed a Memorandum of Understanding (MOU) to allow the consolidation of fugitive emission monitoring activities on April 11, 1996. The Louisiana Fugitive Emission Program Consolidation Guidelines Stringency Table clearly indicates that the monitoring requirements of 40 CFR 63 Subpart H are more stringent than any other monitoring requirements including LAC 33:III.Chapter 51 and 40 CFR 264 - RCRA Subpart BB and CC. Likewise, LAC 33:V.1743.M. provides an alternate compliance strategy for facilities subject to regulation under LAC 33:III.Chapter 37 or 51. Cytec has provided a Source Notice and Agreement to LDEQ, in addition to Cytec's notification in the Title V air permit application that Cytec intends to comply with the more stringent requirements of 40 CFR 63 Subpart H for components in Volatile Organic Compound (VOC), Toxic Air Pollutants (TAP) and Volatile Organic Hazardous Air Pollutant (VOHAP) service. This does not include components in ammonia service. A copy of LDEQ's approval letter dated April 15, 1998, Cytec's letter to LDEQ dated February 19, 1998, the MOU dated April 11, 1996, Cytec's letter to LDEQ dated August 29, 1994, LDEQ's response dated September 9, 1994, ,and the notice provided in the Title V air permit application, are included in Appendix PP.

B. Facilities that cannot install a closed-vent system and control device to comply with the provisions of LAC 33:V.Chapter 17, Subchapter B on the effective date that the facility becomes subject to the provisions of LAC 33:V.Chapter 17, Subchapter B or Chapter 43, Subchapter R, must provide an implementation schedule as specified in LAC 33:V.1709.A.2.

   Response: The requirements of LAC 33:V.536.B do not apply to Cytec because Cytec does not operate a closed vent system or control device associated with the equipment subject to the requirements of LAC 33:V.Chapter 17.

C. Owners or operators who apply for permission to use a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system and choose to use test data to determine the organic removal efficiency or the total organic compound concentration achieved by the control device must provide a performance test plan as specified in LAC 33:V.1713.B.3.

   Response: The requirements of LAC 33:V.536.C do not apply to Cytec because Cytec does not operate a control device associated with the equipment subject to the requirements of LAC 33:V.Chapter 17.

D. Documentation that demonstrates compliance with the equipment standards in LAC 33:V.1719—1733 must be provided. This documentation shall contain the records required under LAC 33:V.1743. The administrative authority may request further documentation before deciding if compliance has been demonstrated.

Response: Compliance documentation for equipment standards in LAC 33:V.1719-1733 and 1743, as applicable, are included in this section and/or Appendix OO.

E. Documentation to demonstrate compliance with LAC 33:V.1735 shall be provided and include the following information:

Response: The requirements of LAC 33:V.536.E. do not apply to Cytec because Cytec does not operate closed vent system and control devices associated with the equipment subject to the requirements of LAC 33:V.Chapter 17.

Subchapter F. Special Forms of Permits

§537. Permits for Boiler and Industrial Furnaces Burning Hazardous Waste for Recycling Purposes Only (Boilers and Industrial furnaces burning hazardous waste for destruction are subject to permit requirements for incinerators)

Response: The requirements of LAC 33:V.537 do not apply to Cytec because Cytec does not currently operate a Boiler and Industrial Furnace burning hazardous waste for recycling purposes only, nor does Cytec anticipate operating a Boiler and Industrial Furnace burning hazardous waste for recycling purposes only.

LAC 33:V.Chapter 15

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials

Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 15. Treatment, Storage, and Disposal Facilities

§1501. Applicability

A. The regulations in this Chapter apply to owners and operators of all hazardous waste facilities, except as provided in LAC 33:V.1501.C. LAC33:V.1503.B.3 applies only to facilities subject to regulations under LAC 33:V. Chapters 19, 21, 23, 25, 27, 29, 31, or 32.

Response: Cytec acknowledges the above citation.

B. Except as specifically authorized by the terms and conditions of a permit issued under these rules and regulations, the construction and operation of a facility to treat, store, or dispose of hazardous wastes in violation of the standards established by this Section shall be a violation of the Act enforceable pursuant to LAC 33:V.107 of these regulations and R.S. 30:1073.

Response: Cytec acknowledges the above citation.

C. The requirements of this Chapter do not apply to:

1. the owner or operator of a facility permitted, licensed, or registered to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation by LAC 33:V.Subpart 1;

2. the owner or operator of a facility which treats or stores material which would otherwise be a hazardous waste which is being beneficially used or reused, legitimately recycled, or reclaimed as defined in LAC 33:V.Chapter 41 (except to the extent they are referred to in LAC 33:V.Chapter 40 or LAC 33:V.4139, 4143, or 4145;

3. the owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in LAC 33:V.109 provided that if the owner or operator is diluting hazardous ignitable (D001) wastes (other than the D001 High TOC Subcategory) or corrosive (D002) waste to remove the characteristic before land disposal, the owner/operator must comply with the requirements set out in LAC 33:V.1517.B;

4. a farmer disposing of waste pesticides from his own use as provided in LAC 33:V.105.D.5;

5. the owner or operator of a totally enclosed treatment facility (see LAC 33:V.109);

6. the owner or operator of an elementary neutralization unit or wastewater treatment unit (see LAC 33:V.109) provided that if the owner or operator is diluting hazardous ignitable (D001) wastes (other than the D001 High TOC Subcategory defined in LAC 33:V. Chapter 22.Table 2, Treatment Standards for Hazardous Wastes) or reactive (D003) waste to remove the characteristic before land disposal, the owner/operator must comply with the requirements set out in LAC 33:V.1517.B;

7. persons who respond immediately to contain or treat a spill of hazardous waste or material which,

when spilled, becomes a hazardous waste, except that, the appropriate requirements of LAC 33:V.1511 and 1513 are applicable to owners and operators of treatment, storage, and disposal facilities. This Paragraph only applies to activities taken in immediate response to a spill. After the immediate response activities are completed, the applicable regulations of this Chapter apply;

8. a transporter storing manifested shipments of hazardous waste in containers meeting the requirements applicable to the regulations of the Department of Public Safety on packaging, at a transfer facility for a period of 10 days or less, if so approved by the administrative authority;

9. The addition of absorbent material to waste in a container (see LAC 33:V.109), or the addition of waste to absorbent material in a container, provided that these actions occur at the time waste is first placed in the container and LAC 33:V.1517.B, 2103, and 2105 are complied with;

10. A generator accumulating waste on-site in compliance with LAC 33:V.1109.E; or

11. universal waste handlers and universal waste transporters (as defined in LAC 33:V.3813) handling the wastes listed below. These handlers are subject to regulation under LAC 33:V.Chapter 38, when handling the below listed universal wastes:

    a. batteries as described in LAC 33:V.3803;
    b. pesticides as described in LAC 33:V.3805; and
    c. thermostats as described in LAC 33:V.3807.

    Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 18:1256 (November 1992), LR 21:266 (March 1995), LR 21:944 (September 1995), LR 23:565 (May 1997), LR 23:568 (May 1997).

§1503. Site Requirements

A. Geology

1. Topographic Relief. The site should not have any abrupt topographic changes or means should be provided to guard against slides, slumping, or erosion.

   Response: The topographic relief of the Fortier Plant ranges from an elevation of approximately 13 feet above mean sea level at the northern boundary of the plant to and elevation of approximately 4 feet above mean sea level at the southern boundary of the operating area of the Fortier Plant. Due to the gradual change in topographic relief over the entire Fortier Plant, there has been no evidence of slides, slumping, or erosion to the extent that would require any additional protective measures.

2. Soils. The area should be covered with natural stable soils of low permeability or a means should be provided, acceptable to administrative authority, which provide a barrier to penetration of surface spills or accumulations of hazardous wastes into a subsurface strata which would have a potential effect on a fresh-water aquifer.

Response: The Fortier Plant is covered with natural stable soils of low permeability, which provide a barrier to penetration of surface spills or accumulations of hazardous wastes into a subsurface strata which would have a potential effect on a fresh-water aquifer. As previously stated in the response to LAC 33:V.517.T.3.c., information from geotechnical studies performed throughout the Fortier Plant by independent consulting firms shows that a thick clay formation exists below the site from the surface to a depth of 10 to 20 feet, which exhibits permeability on the order of 1 x 10E-8 cm/sec. Logs of test holes and wells, including soil samples for each pertinent strata analyzed for soil type, texture, permeability, and other pertinent characteristics are provided in Appendix BB. A general area map and cross sections indicating the extent of freshwater sands, and the degree of isolation of these aquifers to a depth of 100 feet from waste sources by confining layers of clay is included in Appendix J, Figures 8, 9, 10, 11, 12, 13, 14, and 14A. All of the hazardous waste units are equipped with secondary containment and the ancillary equipment is either located within secondary containment, exempt as aboveground equipment with welded flanges, joints and connections subject to daily inspection or included in a secondary containment variance granted by LDEQ on November 20, 1991 in accordance with LAC 33:V.1907.G.2. Transmittals between LDEQ and Cytec (formerly American Cyanamid Company) dated January 15, 1992, November 2, 1991 and November 18, 1988 regarding the secondary containment variance are included in Appendix G.

3. Seismic Conditions. Portions of new facilities where treatment, storage, or disposal of hazardous waste will be conducted must not be located within 61 meters (200 feet) of a fault which has had displacement in Holocene time.

   Response: The requirements of LAC 33:V.1503.A.3. do not apply to the Fortier Plant, because the Fortier Plant is an existing facility as opposed to a new facility. Additional information regarding seismic conditions near the Fortier Plant are included in the response to LAC 33:V.517.T.1.

B. Hydrology

1. General Requirement. Sites utilized shall be isolated by means of natural or created boundaries from adjoining land and from subsurface and surface waters.

   Response: The Fortier Plant is isolated by means of natural or created boundaries from adjoining land and from subsurface and surface waters. These boundaries consist of the following:
   a fence around the perimeter of the operating area;
   the Mississippi River levee on the northern plant boundary;
   the Intercept Ditch on the southern boundary of the operating area;
   a thick clay formation below the site from the surface to a depth of 10 to 20 feet, which exhibits permeability on the order of 1 x 10E-8 cm/sec;
   secondary containment structures throughout the site;
   undeveloped property owned by Cytec surrounds the operating area.

2. Drainage. The site must have the capability to control and/or contain run-off from the maximum rainfall in 24 hours from a 25-year storm (when maximum rainfall records are not available, the design standard shall be 12 inches below 31 degrees North latitude and nine inches above 31 degrees North latitude) and must have the capability to divert run-on from adjoining land (outside

limits of hazardous waste site or if part of an industrial complex, outside limits of company property) from such a storm from the site (surface and subsurface).

Response: The Fortier Plant has the capability to control and/or contain run-off from the maximum rainfall in 24 hours from a 25-year storm. The Hydraulics Manual issued by the State of Louisiana, Department of Transportation and Development indicates that the 24 hour/25 year storm rainfall is 9.6 inches for Region I which included Jefferson Parish. The Fortier Plant has a segregated storm water management system that routes storm water collected from the hazardous waste management unit secondary containment to hazardous waste tanks for disposal via on-site deep well injection. Uncontaminated storm water is managed on-site through a series on man made ditches, the Intercept Ditch and the End of Pipe (EOP) treatment system which discharges through NPDES/LPDES permitted outfalls. The other drainage systems in and around the Fortier Plant consist of man made ditches and canals, which have the capability of diverting run-on from adjoining land. Additional information is included in the responses to LAC 33:V.517.B.12., LAC 33:V.517.J.2. and LAC 33:V.517.J.5.

3. Floodplains

a. A facility located in a 100-year floodplain must be designed, constructed, operated, and maintained to prevent washout of any hazardous waste by a 100-year flood unless the owner or operator can demonstrate to the administrative authority that:

i. procedures are in effect which will cause the waste to be removed safely, before flood waters can reach the facility, to a location where the wastes will not be vulnerable to floodwaters; or

ii. for existing surface impoundments, waste piles, land treatment units, landfills, and miscellaneous units, no adverse effects on human health or the environment will result if washout occurs, considering:

(a) the volume and physical and chemical characteristics of the waste in the facility;
(b) the concentrations of hazardous constituents that would potentially affect surface waters as a result of washout;
(c) the impact of such concentrations on the current or potential uses of and water quality standards established for the affected surface waters; and
(d) the impact of hazardous constituents on the sediments of affected surface waters or the soils of the 100-year floodplain that could result from washout.

Response: Response: The Fortier Plant was located outside of the 100-year and the 500-year floodplain according to a letter from the Corps of Engineers dated February 13, 1979 and the Flood Hazard Boundary Map (revised 1976). A copy of these documents is located in Appendix K. At that time, the Fortier Plant area was designated as Zone C. Due to revisions of the National Flood Insurance Program by the Federal Emergency Management Agency, the Zone C designation has been eliminated for any area in Jefferson Parish.

The Fortier Plant process area is now designated as Zone X and Zone AE as shown on the Flood Insurance Rate Map (revised March 23, 1995) in Appendix K. These zones are delineated by the 100-year flood elevation, which is the five (5) foot

elevation contour line. The Hazardous Waste Management System Location Map (Cytec Drawing No. 36-0-32) in Appendix J, Figure 2 identifies the location of the five (5) foot contour line in relation to the hazardous waste management units. All of the hazardous waste management units, except Deep Well No. 3, are located in Zone X, i.e. outside the boundaries of the 100-year floodplain. The extreme southern portion of the Fortier Plant process area including Deep Well No. 3 and a small portion of its associated piping are located in Zone AE, i.e. inside the 100-year floodplain.

In accordance with LAC 33:V.1503.B.3., the units located within the 100-year floodplain are designed, constructed, operated and maintained to prevent washout of any hazardous waste by a 100-year flood. The well head and the piping are sealed components constructed primarily of carbon steel, which are designed to contain the waste at all times, i.e. watertight. Furthermore, the well head is surrounded by a concrete pad and concrete curbing which provide an increase in elevation over the five (5) foot,100 year flood elevation. The potential for a washout by a 100-year flood is highly unlikely, if not virtually impossible. The Fortier Plant has experienced 100-year floods within the past ten (10) years with no adverse impact to the hazardous waste units.

4. Hurricane-Prone-Areas. Sites located in an area which is historically subject to hurricanes shall be protected from the entry of water by natural or created barriers certified by a professional engineer.

   Response: Previous hurricanes have had no impact on the Fortier Plant since its start up in 1954. Hurricane Betsy hit the area in 1965 and toppled trees in the surrounding area, but the Fortier Plant remained completely intact. A summary of the climatological impact of Hurricane Betsy is included in Appendix DD. The Fortier Plant is located in an area which is historically subject to hurricanes and is protected from the entry of water by the Mississippi River levee on the northern boundary and the Intercept Ditch on the southern boundary. Information obtained from the Army Corp of Engineers is included in Appendix K.

5. Conformity with Existing Restrictions and Permits. Sites located in floodways or wetlands under control of the U. S. Army Corps of Engineers and/or the Coastal Zone Management Office must apply for applicable permits. However, to avoid unnecessarily long licensing periods, the department may accept and process the application with its final approval dependent upon a similar approval. Final department action on such a state permit will be taken after final action on wetlands and coastal zone permits.

   Response: The Fortier Plant operating area is not located in floodways or wetlands under control of the U. S. Army Corps of Engineers and/or the Coastal Zone Management Office. In the event that Cytec opts to expand the operating area into areas potentially identified as floodways or wetlands under the control of the U. S. Army Corps of Engineers and/or the Coastal Zone Management Office, Cytec will apply for applicable permits.

6. Areas of Critical Environmental Concern. Sites located in, or adjacent to, swamps, marshes, floodplains, estuaries, designated wildlife hatchery areas, habitats of endangered species, and similar critical environmental areas shall be isolated from such areas by effective barriers which eliminate possible adverse impacts on such areas due to operation of the facility.

Response: The Fortier Plant operating area is not located in, or immediately adjacent to estuaries, designated wildlife hatchery areas, habitats of endangered species, and similar critical environmental areas. A portion of land located within the property boundaries of the Fortier Plant appears to be identified as swamp and marsh on the USGS Topographic Map in Appendix J, Figure 1, but this area is greater than 1000 feet from the active operating portion of the Fortier Plant. Furthermore, the Fortier Plant operating area is isolated from the land downgradient by the Intercept Ditch, which provides an effective mechanism for managing the storm water run-off on-site either through the NPDES/LPDES permitted outfalls or in the hazardous waste tank system. The location of floodplains in relation to the Fortier Plant are described in the response to LAC 33:V.1503.B.3. Cytec intends to take precautions, as necessary, to protect human health and the environment.

7. Salt Dome Formations, Salt Bed Formations, Underground Mines, and Caves. The placement of any noncontainerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine or cave is prohibited.

   Response: Cytec acknowledges the above citation.

C. Facilities

1. Transportation. Access to sites by surface and water transportation modes shall be by roads and waterways with the capacity to accept the demands created by the facility and designed to avoid, to the extent practical, congestion, sharp turns, obstructions, or other hazards which are conducive to accidents.

   Response: The Fortier Plant is accessible by surface and water transportation modes with the capacity to accept the demands created by the facility and designed to avoid, to the extent practical, congestion, sharp turns, obstructions, or other hazards which are conducive to accidents. Surface transportation modes include rail and truck. The surface traffic patterns and road network in and around the Fortier Plant are described in the responses to LAC 33:V.517.K. and LAC 33:V.517.T.6.e. The Fortier Plant is located at river mile 114 on the Mississippi River which easily accommodates the water transportation modes, including ship and barge.

2. Services. Sites shall have convenient access to required services, including: utilities, medical care, police, fire protection, and similar services, or provide these services internally in a manner acceptable to the administrative authority.

   Response: The Fortier Plant is located in the New Orleans metropolitan area which provides convenient access to required services, including: utilities, medical care, police, fire protection, and similar services. Electrical utilities are provided from two independent power sources, both provided by Entergy. A description of the medical care, police and fire protection providers is included in the Contingency Plan in Appendix Q. In addition, the Fortier Plant maintains on-site medical care, security and fire brigade. The Medical Department is staffed on weekdays by one full time nurse, one part time nurse and a doctor. The doctor is on-site two half days per week. The Medical Department has an ambulance that is used on-site in an emergency to transport persons with illness or injuries to the Medical Department where they can be treated and await transport to area hospitals, if necessary.

During the off shift the Main Gate is staffed by at least two security guards qualified as Emergency Medical Technicians (EMT's). A description of the security procedures is provided in the response to LAC 33:V.517.F. and the Fortier Manufacturing Complex – Security Manual in Appendix O. A description of the fire fighting capabilities is also included in the Contingency Plan in Appendix Q.

3. Buffer Zone

a. General Requirement. Sites shall be shielded from adjoining non-compatible land uses by space, natural separation, or other means acceptable to the administrative authority.

b. Minimum Requirements. In no event shall the buffer be less than that stated for the following sites:

i. Sites zoned industrially—Sufficient space for security and drainage control facilities; or
ii. All other locations—200 feet between any facility (treatment pond, incinerator, tank, etc.) and property line unless a proper buffer is installed which is acceptable to the administrative authority (see LAC 33:V.2113 for container requirements).

Response: The Fortier Plant is located in an area that is zoned for industrial use and is considered to be compatible with the surrounding land use. However, the Fortier Plant operating area is shielded from adjoining land uses by undeveloped property owned by Cytec, a fence surrounding the operating area, and the Mississippi River levee on the northern boundary. The buffer around the Fortier Plant is sufficient for security and drainage control facilities. In compliance with LAC 33:V.2113, containers managing ignitable or reactive wastes are located at least 50 feet from the property line.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 16:220 (March 1990), LR 16:399 (May 1990), LR 18:1256 (November 1992).

§1504. Construction Quality Assurance Program

A. CQA Program

1. A construction quality assurance (CQA) program is required for all surface impoundment, waste pile, and landfill units that are required to comply with LAC 33:V.2903.J and K, 2303.C and D, and 2503.L and M. The program must ensure that the constructed units meet or exceed all design criteria and specifications in the permit. The program must be developed and implemented under the direction of a CQA officer who is a registered professional engineer.

Response: The requirements of LAC 33:V.1504. do not apply to Cytec because Cytec does not currently operate surface impoundments, waste piles, or landfill units, nor does Cytec anticipate operating surface impoundments, waste piles, or landfill units.

§1505. Discharges from the Site

A. General Requirements. All point-source discharges must be controlled and reported as follows:

1. water discharges, if any, must be in conformity with effluent limitations established by the Clean Water Act operating under an NPDES permit and reported as required by that permit. The NPDES Permit must be applied for prior to the issuance of a hazardous waste permit; or

   Response: The point source water discharges from the Fortier Plant are regulated under existing LPDES/NPDES permit number LAD0004367. These permitted outfalls are operated and reported as required by the permit. It is Cytec's intention to maintain conformity with the effluent limitations established by the LPDES/NPDES permit. Additional information is included in the response to LAC 33:V.517.J.5. Periodic inspections are conducted by the administrative authority to ensure compliance with the LPDES/NPDES permit and applicable regulations.

2. air emissions, if any, must be in conformity with air limitations of the Clean Air Act administered by the Air Quality Division of the department, operating under an Air Quality Permit as required, and reported as required by that permit. The air permit must be applied for prior to the issuance of a hazardous waste permit.

   Response: The point source air emissions from the Fortier Plant are regulated through numerous permits which are identified in the Part I/Part A application in this submittal. These permitted air emission points are operated and reported in as required by the respective permits. It is Cytec's intention to maintain conformity with air limitations established by the respective air permits. Periodic inspections are conducted by the administrative authority to ensure compliance with the respective air permits and applicable regulations.

B. Surface. Offsite shipments of any hazardous waste material, containers, packaging, or similar material must be reported on a manifest and must be delivered to a permitted facility.

   Response: Off-site shipments of any hazardous waste material, containers, packaging, or similar material is reported on a uniform hazardous waste manifest completed and signed in compliance with the applicable requirements of LAC 33:V.Chapter 9. Off-site shipments of any hazardous waste material, containers, packaging, or similar material are only delivered to permitted facilities.

C. Spills

1. Any spill of hazardous waste which could possibly endanger health or adversely affect the environment off-site shall be reported to the department immediately as provided in the "Notification Regulations and Procedures for Unauthorized Discharges and Spills." (See LAC 33:I.Chapter 39)

   Response: Cytec will report to the department as provided in the "Notification Regulations and Procedures for Unauthorized Discharges and Spills" as specified in LAC 33:I.Chapter 39 any spill of hazardous waste which could possibly endanger health or adversely affect the environment off-site. In the event of a spill, Cytec makes every effort to contain the spilled material on-site. Additional information is included in the Contingency Plan in Appendix Q.

2. If a spill occurs on the site of a generator or TSD facility, and if that spill could endanger the public health or affect the environment off-site, the department and the Department of Public Safety have the authority to enter the site and investigate the spill. It is the responsibility of the operator to report

spills of this nature to the department and the Department of Public Safety as soon as possible, as provided in LAC 33:V.1505.C.1.

Response: Cytec acknowledges the above citation. Cytec will report spills which could possibly endanger health or adversely affect the environment off-site to the department and the Department of Public Safety as soon as possible, as provided in LAC 33:V.1505.C.1., and as stated in the Contingency Plan in Appendix Q.

3. Any spilled material or material trapped in sumps that is a hazardous waste or that will be disposed of as a hazardous waste must be cleaned up in a timely manner.

Response: Cytec will clean up any spilled material or material trapped in sumps that is a hazardous waste or that will be disposed of as a hazardous waste in a timely manner.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq. HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 18:1256 (November 1992).

§1507. Security

A. General Requirements. The security system shall insure that site ingress and egress by the public is controlled and that employees are protected from hazards to health resulting from contact with extremely hazardous operations.

Response: The Fortier Plant security system insures that site ingress and egress by the public is controlled and that employees are protected from hazards to health resulting from contact with extremely hazardous operations. A description of the security procedures is provided in the Fortier Manufacturing Complex – Security Manual in Appendix O. Additional information is provided in the response to LAC 33:V.517.F.

B. Perimeter Control. The natural or created barrier to site ingress or egress around the entire perimeter of the hazardous waste area shall be continuously patrolled or monitored. Equipment will be installed, as necessary, to keep birds and wildlife off the site.

Response: The perimeter of the Fortier Plant operating area is enclosed by a fence with gates located at several entrances as shown in Appendix J, Figure 2. Gates readily accessible by the public are either locked closed or manned by security guards to prevent access by unauthorized personnel. The Main Gate is manned by security guards 24 hours per day. The security guards monitor the Fortier Plant operating perimeter during random and scheduled security patrols. The hazardous waste management units are located within the Fortier Plant operating area in process areas that are manned 24 hours per day by operating personnel. Personnel who do not routinely work inside a specific operating area are required to report to the control room and sign in prior to entering the specific unit to further control access. Additional information is included in the response to LAC 33:V.517.B.7., LAC 33:V.517.F., and LAC 33:V.1503.B.1. The hazardous waste management units are closed systems which prevent ready access by birds and wildlife. In the past, no special equipment has been required to keep birds and wildlife off of the hazardous waste management units. A description of the

security procedures is provided in the Fortier Manufacturing Complex – Security Manual in Appendix O.

C. Entry. Each entry through the perimeter barrier shall be manned at all hours. The entry should be opened by security personnel or by an electronic system (card, code, handprint, etc. or television monitor) acceptable to the administrative authority.

Response: The perimeter of the Fortier Plant operating area is enclosed by a fence with gates located at several entrances as shown in Appendix J, Figure 2. Gates readily accessible by the public are either locked closed or manned by security guards to prevent access by unauthorized personnel. The Main Gate is manned by security guards 24 hours per day. Entry is controlled by the security guards. Cytec employees have picture identification cards. Visitors are required to sign in and obtain a badge with a unique number that is recorded in the visitor's log. Visitors must also be accompanied by Cytec personnel while inside the Fortier Plant operating area. Temporary vehicle passes are issued and documented in a log book for visitor's and delivery vehicles prior to allowing them into the plant. Contractors are required to enter the Fortier Plant operating area through Gate 4, which is located on the west side of the plant. Contractors are also issued a badge with a unique number. A description of the security procedures is provided in the Fortier Manufacturing Complex – Security Manual in Appendix O.

D. Alternate Means of Meeting Security Requirements. Any operator may petition the administrative authority for acceptance of equivalent alternative means of meeting the requirements of LAC 33:V.1507 in whole or in part. This shall be done through submission of proof that necessary procedures for the protection of health and property are provided by other means and that representatives of local fire and police departments, if any, are adequately informed of such means.

Response: Cytec acknowledges the above citation. At this time, Cytec does not anticipate petitioning the administrative authority for acceptance of equivalent alternative means of meeting the requirements of LAC 33:V.1507 in whole or in part.

E. Perimeter Barrier. A constructed barrier shall enclose the entire hazardous waste site and shall have the capability to deny unauthorized or unknowing ingress or egress and to prevent entry by domestic livestock.

Response: The perimeter of the Fortier Plant operating area is enclosed by a fence with gates located at several entrances as shown in Appendix J, Figure 2. Gates readily accessible by the public are either locked closed or manned by security guards to prevent access by unauthorized personnel. The Main Gate is manned by security guards 24 hours per day. Entry is controlled by the security guards. The hazardous waste management units are located within the Fortier Plant operating area in process areas that are manned 24 hours per day by operating personnel. Personnel who do not routinely work inside a specific operating area are required to report to the control room and sign in prior to entering the specific unit to further control access. . Additional information is included in the response to LAC 33:V.517.B.7., LAC 33:V.517.F., LAC 33:V.1503.B.1., and LAC 33:V.1507.B. The perimeter fence surrounding the Fortier Plant operating area is intended to deny unauthorized or unknowing ingress or egress and to prevent entry by domestic

livestock. A description of the security procedures is provided in the Fortier Manufacturing Complex – Security Manual in Appendix O.

F. Perimeter Clear Zone. A clear, lighted path shall be constructed and maintained inside the perimeter barrier to permit patrol by vehicle or foot.

Response: The perimeter of the Fortier Plant operating area is enclosed by a fence with gates located at several entrances as shown in Appendix J, Figure 2. A clear roadway inside the perimeter fence has been constructed and maintain to allow scheduled and random security patrols by vehicle. The Fortier Plant follows the guidelines established by the Illuminating Engineering Society with regard to illumination levels for indoor and outdoor lighting. A description of the security procedures is provided in the Fortier Manufacturing Complex – Security Manual in Appendix O.

G. Required entry facilities include the following:

1. gate at each entry point equipped with secure locking device;

Response: The perimeter of the Fortier Plant operating area is enclosed by a fence with gates located at several entrances as shown in Appendix J, Figure 2. Gates readily accessible by the public are either locked closed or manned by security guards to prevent access by unauthorized personnel. The Main Gate is manned by security guards 24 hours per day. Gates at each entry point readily accessible by the public are equipped with secure locking devices.

2. gate house for guard, or electromechanical equipment permitting controlled access; and

Response: The Main Gate and Gate 4 are equipped with guard houses.

3. floodlighting at each entry to insure a well-lighted, safe, and secure area at night.

Response: The Main Gate and Gate 4 are equipped with floodlighting to insure a well-lighted, safe, and secure area at night. The Main Gate is the primary gate used to access the Fortier Plant operating area at night.

H. Emergency Response Facilities

1. Communications. An alarm system with controls accessible to each area of potential spill, explosion, or fire; telephone contact to each facility location; two-way radios for key personnel; and

Response: The Fortier Plant is equipped with an alarm system with controls accessible to each area of potential spill, explosion, or fire. There are emergency sirens and/or fire alarm boxes strategically located throughout the facility that personnel can activate to initiate a crisis response. The activation of a fire alarm box or emergency siren must be followed by a telephone call to extension 6511 to report the circumstances surrounding the crisis. This will result in the activation of the plant wide siren, which is followed by verbal instruction. Telephones are located throughout the plant in the control rooms, crisis assembly areas, guard houses and other strategic locations to facilitate communications. Operating

personnel, supervisory personnel, Safety and Environmental representatives, security guards and other key personnel either carry on their person or have access to two way radios to facilitate communications. Additional information is included in the Contingency Plan in Appendix Q.

2. Fire Control. Portable fire extinguishers, decontamination facilities, fire control equipment at incinerators, mixing and treatment vats; and other fire-hazard facilities and fire hydrants (with capacity as required by state fire code) located not more than 200 feet from each fire-hazard facility.

   Response: The Fortier Plant is equipped with a sufficient number of portable fire extinguishers, which are strategically located throughout the plant for ready access in the event of a fire. Decontamination facilities of both personnel and equipped are also available on-site at the Fortier Plant. Personnel decontamination facilities consist of safety showers and eye wash stations strategically located throughout the plant. Equipment decontamination facilities consist concrete secondary containment areas located in the Acrylamide (AMD) Plant, Acrylonitrile Plant and the Utilities Department that either drain to or can be connected to sumps that tie into the Miscellaneous Effluent (MET) hazardous waste tank system. The Fortier Plant maintains a fire brigade and a shift fireman is available on-site 24 hours per day. A description and the location of the major fire fighting equipment is provided in the Contingency Plan in Appendix Q. The fire control equipment is strategically located near fire-hazard facilities and fire hydrants/monitors are located not more than 200 feet from each fire-hazard facility with capacity as required by state fire code.

I. Safety Control Devices

1. Moving Equipment Barriers. Steel or concrete posts or barriers capable of stopping trucks or other equipment used on the site (at maximum expected speed) shall be installed to protect all hazardous waste above-ground pipelines, valves, or other containers located adjacent to roadways.

   Response: Moving equipment barriers constructed of steel capable of stopping trucks or other equipment used on the site at the maximum expected speed have been installed to protect the deep well injection well heads and the above grade groundwater monitoring wells. These are the only hazardous waste management units that are located near a roadway. The other hazardous waste management units are either surrounded by concrete secondary containment vaults or are not located near a roadway. The moving equipment barriers are painted with bright yellow reflective paint.

2. Personnel Barriers. Barriers shall be installed at all locations where employees or visitors normally come in contact with ponds, lagoons, incinerators, treatment facilities, and other high-hazard locations.

   Response: Personnel barriers from the hazardous waste management units are not necessary, because the hazardous waste is normally managed in closed systems to reduce if not eliminate the possibility of exposure.

J. Exterior Lighting

1. All personnel barriers shall be lighted; all vehicle barriers shall have reflectors.

2. Entry gates shall be lighted (see LAC 33:V.1507.G.3).

3. Perimeter barriers shall be lighted (see LAC 33:V.1507.B).

Response: The Fortier Plant follows the guidelines established by the Illuminating Engineering Society with regard to illumination levels for indoor and outdoor lighting. The hazardous waste management units are not equipped with personnel barriers and the vehicle barriers are painted with bright yellow reflective paint. The entry gates and perimeter fence is lighted.

K. Signs. A sign with the legend "Danger—Unauthorized Personnel Keep Out" must be posted at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion but in no case shall the spacing be greater than 200-foot intervals. The legend must be written in English and in any other language predominant in the area surrounding the facility, and must be legible from a distance of at least 25 feet. Existing signs with a legend other than "Danger—Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous.

Response: Signs with the legend "Danger–Unauthorized Personnel Keep Out" or equivalent legend indicating that only authorized personnel are allowed to enter the operating area, and that entry into the operating area can be dangerous, are posted at each entrance to the Fortier Plant operating area and along the perimeter fence at approximately 200-foot intervals. The legend is written in English and is legible from a distance of at least 25 feet. Alternate language signs are not necessary since English is the predominant language in the surrounding area.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 18:1256 (November 1992).

§1509. General Inspection Requirements

A. The owner or operator must inspect his facility for malfunctions and deterioration, operator errors, and discharges which may be causing or may lead to:

1. a release of hazardous waste; or

2. a threat to human health.

The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

Response: Cytec will inspect the Fortier Plant hazardous waste management units for malfunctions and deterioration, operator errors, and discharges which may be causing or may lead to a release of hazardous waste or a threat to human health. The inspections will be conducted often enough to identify problems in time to correct them before they harm human health or the environment. A copy of the

Inspection Plan is in Appendix P.

B. Schedule. LAC 33:V.517.G requires the inspection schedule to be submitted with Part II of the permit application. The administrative authority will evaluate the schedule along with the rest of the application to ensure that it adequately protects human health and the environment.

Response: Cytec acknowledges the above citation. A copy of the Inspection Plan is in Appendix P.

1. The owner or operator must develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards.

Response: Cytec has developed and follows a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards. A copy of the schedule is included in the Inspection Plan in Appendix P.

2. He must keep this schedule at the facility.

Response: Cytec maintains a copy of the Inspection Plan including schedule at the Fortier Plant.

3. The schedule must identify the types of problems (e.g., malfunctions or deterioration) which are to be looked for during the inspection (e.g., inoperative sump pump, leaking fitting, eroding dike, etc.).

Response: The schedule included in the Inspection Plan in Appendix P identifies the types of problems which are to be looked for during the inspection.

4. The frequency of inspection may vary for the items on the schedule. However, inspections should be based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if the deterioration or malfunction or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. At a minimum, the inspection schedule must include the terms and frequencies called for in LAC 33:V.1709, 1719, 1721, 1731, 1907, 1911, 2109, 2309, 2507, 2711, 2907, 3119, and 3205, where applicable.

[Comment: LAC 33:V.517.G requires the inspection schedule to be submitted with Part II of the permit application. The department will evaluate the schedule along with the rest of the application to ensure that it adequately protects human health and the environment. As part of this review, the department may modify or amend the schedule as may be necessary.]

Response: Cytec acknowledges the above citation. The frequencies of inspections are identified on the schedule included in the Inspection Plan in Appendix P. The frequencies of the inspections vary for the items on the schedule. The frequencies are based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if the deterioration or malfunction or any operator error goes undetected between

inspections. Areas subject to spills, such as loading and unloading areas, are inspected daily when in use. At a minimum, the inspection schedule includes the terms and frequencies called for in LAC 33:V.1709, 1719, 1721, 1731, 1907, 1911, 2109, 2309, 2507, 2711, 2907, 3119, and 3205, where applicable.

C. The owner or operator must remedy any deterioration or malfunction of equipment or structures which the inspection reveals; a schedule must be set up to ensure that the problem does not lead to an environmental or human health hazard. When a hazard is imminent or has already occurred, remedial action must be taken immediately.

Response: Cytec will remedy any deterioration or malfunction of equipment or structures which the inspection reveals in a timely manner. If there is a justifiable reason for delay of repair, a schedule will be set up to ensure that the problem does not lead to an environmental or human health hazard. When a hazard is imminent or has already occurred, remedial action will be taken immediately.

D. The owner or operator must record inspections in an inspection log or summary. He must keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

Response: Cytec will record inspections in an inspection log or summary. The records will be maintained for at least three years from the date of inspection. At a minimum, these records include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 17:658 (July 1991), LR 18:1256 (November 1992), LR 21:266 (March 1995).

§1511. Preparedness and Prevention

A. Applicability. The regulations in this Section apply to owners and operators of all hazardous waste facilities.

Response: Cytec acknowledges the above citation.

B. Design and Operation of a Facility. Facilities must be designed, constructed, maintained, and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

Response: The Fortier Plant is designed, constructed, maintained, and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment. Cytec minimizes the possibility of emergency situations involving hazardous materials and hazardous wastes through the use of Process Safety Management (PSM), Process Change Authorizations (PCA), Process Hazards Analyses/Evaluations

(PHA) and Pre-Startup Safety Reviews (PSSR). The PCA is a form used to document change and provide for signature approval. The PHA is a systematic examination to identify potential hazards in order to eliminate or control the hazards. The PSSR is a review to ensure that all safety and operational concerns have been addressed before the startup of new or modified process/facility/equipment. Minimizing the possibility of emergency situations is further accomplished through the use of indicator alarms which signal that tank levels, operating equipment, or other necessary equipment and items are malfunctioning, communication systems, automatic emergency systems, visual inspections, and training, among other things. The following sections, including but not limited to contingency procedures, inspection procedures, training programs, security plans and safety procedures, form the basis for preparedness and prevention against emergency situations.

C. Required Equipment. All facilities must be equipped with the following, unless it can be demonstrated to the administrative authority that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

Response: Equipment is maintained on-site to avoid crisis situations and provide assistance in the event of emergencies. Such equipment and systems include communications and alarms (internal and external); fire, spill and decontamination equipment; and sufficient water volume and pressure for the fire fighting system.

1. an internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

Response: The Fortier Plant is equipped with internal communications and an alarm system capable of providing immediate emergency instruction to facility personnel. There are emergency sirens and/or fire alarm boxes strategically located throughout the facility that personnel can activate to initiate a crisis response. The activation of a fire alarm box or emergency siren must be followed by a telephone call to extension 6511 to report the circumstances surrounding the crisis. Emergency instruction would be provided to the Fortier Plant by the sounding of the plant horn for 15 seconds, followed by verbal information provided over the loudspeaker. Depending upon the level of the emergency, all personnel may be required to report to a Crisis Assembly Area. All of the Crisis Assembly Areas are either equipped with telephones, or personnel with two way radios are present to relay pertinent information. Additional alarms systems are used when a crisis or problem requires assistance of personnel from outside the immediate operating area. The procedure for such notification is included in the Contingency Plan in Appendix Q. The hazardous waste management areas are manned 24 hours per day by the operating personnel. The operating personnel have access to two way radios and/or telephones which enable them to communicate with the control room, Main Gate, Night Superintendents, or other key personnel in order to relay information regarding a crisis situation. In general. internal communications are available through the use of the loudspeaker, two way radios and telephone. These systems are designed to insure the safety of operating personnel and to provide adequate forewarning to protect human health and the environment.

2. a device, such as a telephone (immediately available at the scene of operations) or a hand-held

two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or state or local emergency response teams;

Response: The Fortier Plant is equipped with a modern telecommunication system. Electronic operations of this system are ensured with an emergency UPS (uninterruptible power supply). There are approximately 700 telephone extensions located throughout the plant. Personnel of each operating department are equipped with hand-held radios which can be tuned to channel 1 and used in case a crisis would cause failure to the plant telecommunication system. These radios are located in control rooms of every operating plant and are routinely checked for proper operations. The plant is also equipped with overhead paging, where in case of a crisis, announcements can be made and heard by plant personnel. This system operates through the plant's telecommunication system. In the event that outside assistance is required by the Fortier Plant, there is a direct line (hotline) from the Main Guardhouse to the St. Charles Parish Civil Defense Headquarters in order to expedite communications. Also, there is a phone line from which 911 can be dialed to contact the Jefferson Parish Civil Defense Headquarters. There is a similar emergency telephone setup at the plant's EOC (Emergency Operations Center) facility. Furthermore, 911 can be dialed by any of Fortier's plant safety and emergency response personnel. The Contingency Plan in Appendix Q provides the names and telephone numbers of various local and regional emergency authorities to notify if the situation warrants. The Fortier Plant currently has 32 incoming and 20 outgoing trunks in the facility's private branch exchange (PBX). In addition, there are 18 CYNET SDN (Software Defined Network) lines available for long distance communications. This information is provided as an example and is subject to change in response to Fortier Plant requirements and technological advancements.

3. portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and

Response: The Fortier Plant is equipped with a sufficient number of portable fire extinguishers, which are strategically located throughout the plant for ready access in the event of a fire. The Fortier Plant maintains a fire brigade and a shift fireman is available on-site 24 hours per day. The shift fireman performs scheduled rounds to check for fire hazards and assure equipment is available. A description and the location of the major fire fighting equipment is provided in the Contingency Plan in Appendix Q. The fire control equipment is strategically located near fire-hazard facilities and fire hydrants/monitors are located not more than 200 feet from each fire-hazard facility with capacity as required by state fire code. The Fortier Plant fire protection system includes a network of fire hydrants and hose houses, monitor nozzles, foam kits, and sprinkler systems located near major facilities. There are hose houses located near all facilities to expedite fire fighting activities. In addition, portable fire extinguishers and foam monitors are located within the hazardous waste facilities to allow immediate reaction to small fires. Inspections are conducted of all curb box and post indicator valves, fire extinguishers, monitor nozzles, hydrants and hose houses, sprinkler systems, hose reels, fire pumps, foam generators, hose racks and fire engines to make sure they will be ready in an emergency. In addition, each operating department

conducts its own weekly safety check of safety showers, emergency lights, air packs, and gas masks as part of their inspection procedures to ensure proper operation. Spill control equipment and materials available to Fortier include a D-9 caterpillar, tractor with front end loader / backhoe, and a road maintainer / grader, all of which could be used to construct dikes and berms, levees or dams on short notice. Absorbent pads and booms are stocked in the warehouse and strategically placed throughout the plant to provide ready access in the event of a release. Vapor suppressants are also kept on hand for emission control from spill of volatile liquids.

Decontamination facilities of both personnel and equipped are also available on-site at the Fortier Plant. Personnel decontamination facilities consist of safety showers and eye wash stations strategically located throughout the plant. Equipment decontamination facilities consist concrete secondary containment areas located in the Acrylamide (AMD) Plant, Acrylonitrile Plant and the Utilities Department that either drain to or can be connected to sumps that tie into the Miscellaneous Effluent (MET) hazardous waste tank system.

4. water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

   Response: Water used in case of fire is taken directly from the Mississippi River. For this reason, fire water supply is considered essentially unlimited. Electric and diesel pumps are located at the settling basin and river dock. In the event of a power failure, the diesel pumps ensure that an adequate volume and pressure of fire water is maintained to the Fortier Plant. The fire water pumps are capable of delivering a maximum pumping rate of 7,500 g.p.m

D. Testing and Maintenance of Equipment. All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

   Response: All facility communications, alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, are tested and maintained as necessary to assure its proper operation in time of emergency. All emergency equipment is tested on a regular basis. Communications and alarms are tested on a weekly basis. The plant wide crisis alarm and sirens in specific operating areas are currently being activated on Monday at 1:00 PM to ensure proper operation. Fire protection equipment is inspected weekly and extinguishers are inspected monthly. Fire equipment involving flow systems (hydrants, hose houses, etc.) are checked on a semi annual basis. Decontamination showers and eye washes are tested daily with once per week documentation of tests. Other safety equipment is checked weekly.

E. Access to Communications or Alarm System

1. Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless it can be demonstrated to the administrative authority that such a device is not required.

Response: Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation will have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee. A majority of the hazardous waste management areas in the Fortier Plant are part of continuous operations. The operations personnel can readily contact one another through loudspeakers, two way radio or telephone. If an operator notices a potential or existing problem with equipment or operations, he can contact control room personnel to signal alarms via two way radio if no alarms are immediately accessible. Contact by loudspeaker, plant wide paging, two way radio or telephone can be directed from the operating area control room to the Main Gate, Shift Superintendent, Environmental and / or Safety Departments if potential problems are apparent and assistance may be required as stipulated in the Contingency Plan in Appendix Q.

2. Anytime there is at least one employee on the premises while the facility is operating, he must have immediate access to a device such as a telephone, immediately available at the scene of operation, or a hand-held two-way radio, capable of summoning external emergency assistance, unless it can be demonstrated to the administrative authority that such a device is not required.

   Response: The Fortier Plant operates 24 hours per day, seven days per week. Due to the magnitude of the facility, a substantial workforce is continually on-site and operating personnel are readily available near the hazardous waste operating areas. Therefore, an operator who is making rounds can always make contact with area personnel for emergency assistance as described above. Communication is made to the control room by two way radio or telephone and control room personnel can summon assistance via loudspeaker, two way radio, or telephone.

F. Required Aisle Space. The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless it can be demonstrated to the administrative authority that aisle space is not needed for any of these purposes.

   Response: Cytec will maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency. Aisle space is made available plant wide by a system of roadways and pathways. Roads and paths exist for daily inspections and maintenance of operations by large mobile equipment. These same roads and paths are large and unobstructed to provide a route for orderly movement of emergency equipment and personnel. Areas around operating systems are generally graded and shelled and can provide additional areas for equipment and personnel movement, if necessary. Appendix J, Figure 2 and Appendix R provides a plot plan depicting the hazardous waste facilities, road surfaces and traffic patterns.

G. Arrangements with Local Authorities

1. The owner or operator must attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:

a. arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes;

Response: Cytec performs a large scale exercise at least once each calendar year which includes all plant personnel, mutual aid groups, local governmental agencies, news media, etc... This drill provides an opportunity for police, fire departments, and emergency response teams to familiarize themselves with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes.

b. where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

Response: In the event that more than one police and fire department respond to an emergency, the Fortier Fire Department will have primary authority during an emergency involving a fire and the law enforcement progression will be the Louisiana State Police, St. Charles Parish Sheriff's Office and Jefferson Parish Sheriff's Office. The Fortier Emergency coordinator will direct operations and any outside assistance will be provided by the St. Charles Parish Department of Emergency Preparedness.

c. agreements with state emergency response teams, emergency response contractors, and equipment suppliers; and

Response: The Contingency Plan in Appendix Q provides a table identifying the agency or organization and the service to be provided by that agency or organization.

d. arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

Response: The Fortier Plant maintains a medical clinic staffed with a doctor and two nurses available for emergency treatment on weekdays. During off-hours, two guards per shift have Emergency Medical Technician (EMT) certification to provide immediate treatment of injuries. The doctor is on-site two days per week and the remainder of the time he is located at West Jefferson Hospital. He is familiar with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

2. Where state or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record.

Response: No state or local authorities have declined to enter into arrangements related to preparedness and prevention with Cytec.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

§1513. Contingency Plan and Emergency Procedures

A. Purpose and Implementation of Contingency Plan

1. Each owner or operator must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

   Response: Cytec has a Contingency Plan for the Fortier Plant. The Contingency Plan is designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water. A copy of the Contingency Plan is in Appendix Q.

2. A contingency plan to be implemented in the event of an emergency shall be filed with the administrative authority and, after approval, with the local fire and police departments (if any operate in the area), hospitals and emergency response teams operating in the area which are subject to call by the operator or the department.

   Response: Cytec has submitted a copy of the Contingency Plan to be implemented in the event of an emergency to the administrative authority and a copy of the currently approved plan has been submitted to the local fire and police departments, hospitals and emergency response teams, which may be asked to provide assistance during an emergency. An updated Contingency Plan is included in Appendix Q. After approval by the administrative authority, the updated Contingency Plan will be submitted to the local fire and police departments, hospitals and emergency response teams, which may be asked to provide assistance during an emergency.

3. The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

   Response: Cytec will implement the provisions of the Contingency Plan whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents from a hazardous waste management unit which could threaten human health or the environment.

4. The plan shall be revised each time the facility operations are changed due to expansion, change in type or quantity of waste handled, or other changes which affect the degree or type of possible emergency situation.

   Response: Cytec will revise the Contingency Plan each time the facility operations are changed due to expansion, change in type or quantity of waste handled, or other changes which affect the degree or type of possible emergency situation as related to the hazardous waste management units.

B. Content of Contingency Plan

1. The contingency plan must describe the actions facility personnel must take to comply with LAC 33:V.1513.B and F in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

   Response: The Contingency Plan describes the actions facility personnel will take to comply with LAC 33:V.1513.B and F in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents from hazardous waste management units to air, soil, or surface water at the Fortier Plant. A copy of the Contingency Plan is included in Appendix Q.

2. If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with these requirements.

   Response: Cytec acknowledges the above citation. Cytec maintains the Spill Prevention, Control, and Countermeasures (SPCC) Plan and the Contingency Plan as separate documents at this time.

3. The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services.

   Response: The Contingency Plan describes arrangements agreed to by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams, as appropriate, to coordinate emergency services. A copy of the Contingency Plan is included in Appendix Q.

4. The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator, and this list must be kept up to date. When more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates. For new facilities, this information must be supplied to the administrative authority at the time of certification, rather than at the time of permit application.

   Response: The Contingency Plan lists names, addresses, and phone numbers (work and home) of all persons qualified to act as emergency coordinator. The lists are kept up to date, as necessary. The lists identify the primary emergency coordinator and alternates in the order of succession. A copy of the Contingency Plan is included in Appendix Q.

5. The plan must include a list of all emergency equipment (where required) at the facility, such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list and a brief outline of its capabilities.

   Response: The Contingency Plan includes a list of emergency equipment located

near the hazardous waste management units at the Fortier Plant, such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment. This list is kept up to date. The list includes the location, a physical description and a brief outline of the capabilities of the emergency equipment. A copy of the Contingency Plan is included in Appendix Q.

6. The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. The plan must describe signals to be used to begin evacuation, evacuation routes, and alternate evacuation routes.

   Response: The Contingency Plan includes an evacuation plan for the Fortier Plant personnel where there is a possibility that evacuation could be necessary. The Contingency Plan describes signals to be used to begin evacuation, evacuation routes, and alternate evacuation routes, as applicable. A copy of the Contingency Plan is included in Appendix Q.

C. Copies of Contingency Plan

1. The contingency plan must be submitted to the administrative authority with the permit application and, after modification or approval, will become a condition of any permit issued.

   Response: Cytec acknowledges the above citation. The Contingency Plan is being submitted to the administrative authority with this permit application in Appendix Q.

2. A copy of the contingency plan and all revisions to the plan must be maintained at the facility and additional copies must be submitted to all local police departments, fire departments, hospitals, and state and local emergency response teams that may be called upon to provide emergency services.

   Response: A copy of the Contingency Plan and all revisions to the plan will be maintained at the Fortier Plant. After approval of the updated Contingency Plan, Cytec will submit copies to the local police departments, fire departments, hospitals, and state and local emergency response teams, as appropriate, that may be called upon to provide emergency services.

D. Amendment of Contingency Plan. The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

1. the facility permit is revised;

2. the plan fails in an emergency;

3. applicable regulations are revised;

4. the facility changes its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;

5. the list of emergency coordinators changes; or

6. the list of emergency equipment changes.

Response: Cytec will review and amend, if necessary, the Contingency Plan whenever the facility permit is revised; the plan fails in an emergency; applicable regulations are revised; the facility changes its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency; the list of emergency coordinators changes; or the list of emergency equipment changes.

E. Emergency Coordinator. At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures (see LAC 33:V.1513.F). This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.

Response: The Shift Superintendent is the designated emergency coordinator that is on the Fortier Plant premises at all times. The Shift Superintendent is familiar with all aspects of the Fortier Plant's Contingency Plan, all operations and activities at the Fortier Plant, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, the Shift Superintendent has the authority to commit the resources needed to carry out the Contingency Plan. Furthermore, management and technical support personnel are on call and available to respond to an emergency by reaching the facility within a short period of time to assist in coordinating all emergency response measures. Additional information is included in the Contingency Plan in Appendix Q.

F. Emergency Procedures

1. Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:

   a. activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

   b. notify appropriate state or local agencies with designated response roles if their help is needed.

Response: The Contingency Plan specifies that whenever there is an imminent or actual emergency situation, the Shift Superintendent or his designee will activate the internal facility alarms or communication systems, where applicable, to notify all facility personnel; and notify appropriate state or local agencies with designated response roles if their help is needed. Additional information is included in the Contingency Plan in Appendix Q.

2. Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials. He may do this by observation or review of facility records or manifest, and, if necessary, by chemical analysis.

Response: The Contingency Plan specifies that whenever there is a release, fire, or explosion involving the hazardous waste management units, the Shift Superintendent or his designee will identify the character, exact source, amount, and extent of any released materials. This information may be obtained by means of visual observation or review of facility records or manifest, and, if necessary, by chemical analysis. Additional information is included in the Contingency Plan in Appendix Q.

3. Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions).

Response: The Shift Superintendent or his designee will assess the possible hazards to human health or the environment that may result from the release, fire or explosion involving the hazardous waste management units. This assessment will consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions). During an emergency situation, the Emergency Operations Center (EOC) will be manned by management and technical personnel that are capable of assisting in these determinations. Additional information is included in the Contingency Plan in Appendix Q.

4. If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health or the environment outside the facility, he must report his findings as follows

   a. if his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and

Response: In the event of a release, fire, or explosion involving the hazardous waste units which could threaten human health or the environment outside the facility, the Shift Superintendent or his designee will notify appropriate local authorities to discuss and/or advise evacuation of local areas. Additional information is included in the Contingency Plan in Appendix Q.

   b. he must immediately notify the state official designated as the on-scene coordinator for that geographical area and provide:

      i. name and telephone number of reporter;

      ii. name and address of facility;

      iii. time and type of incident (e.g., release, fire);

      iv. name and quantity of material(s) involved, to the extent known;

      v. the extent of injuries, if any; and

vi. the possible hazards to human health or the environment, outside the facility.

Response: In the event of a release, fire, or explosion involving the hazardous waste units which could threaten human health or the environment outside the facility, the Shift Superintendent or his designee will notify the state official designated as the on-scene coordinator for that geographical area and provide the following information:
- name and telephone number of reporter;
- name and address of facility;
- time and type of incident (e.g., release, fire);
- name and quantity of material(s) involved, to the extent known;
- the extent of injuries, if any; and
-the possible hazards to human health or the environment, outside the facility.
Additional information is included in the Contingency Plan in Appendix Q.

5. During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

Response: During an emergency, the Shift Superintendent of his designee will take all reasonable measures necessary to ensure that fires, explosions, and releases involving hazardous waste management units do not occur, recur, or spread to other hazardous waste management units at the Fortier Plant. These measures may include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers. Additional information is included in the Contingency Plan in Appendix Q.

6. If the facility stops operation in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

Response: If the facility stops operation in response to a fire, explosion, or release involving the hazardous waste management units, the Shift Superintendent of his designee will monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment associated with hazardous waste management, wherever this is appropriate. Additional information is included in the Contingency Plan in Appendix Q.

7. Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil, or surface water, or any other material that results from a release, fire, or explosion at the facility. Unless the owner or operator can demonstrate that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements.

Response: Immediately after an emergency, the Shift Superintendent or his designee will provide for treating, storing, or disposing of recovered waste, contaminated soil, or surface water, or any other material that results from a release, fire, or explosion involving the hazardous waste management units at the

Fortier Plant. The waste will be characterized and managed in accordance with all applicable requirements.

8. The emergency coordinator must ensure that in the affected area(s) of the facility:

   a. no waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

   b. all emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

   Response: The Shift Superintendent or his designee will ensure that no waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed in the affected area(s) of the Fortier Plant and that all emergency equipment listed in the Contingency Plan is cleaned and fit for its intended use before operations are resumed.

9. The owner or operator must notify the administrative authority and appropriate state and local authorities that the facility is in compliance with LAC 33:V.1513.F.8 before operations are resumed in the affected area(s) of the facility.

   Response: In the event of an emergency situation involving the hazardous waste management units, Cytec will notify the administrative authority and appropriate state and local authorities that the Fortier Plant is in compliance with LAC 33:V.1513.F.8 before operations are resumed in the affected area(s) of the Fortier Plant.

10. The owner or operator must note in the operating record the time, date, and details of any incident that requires implementation of the contingency plan. Within 15 days after the incident, he must submit a written report on the incident to the administrative authority which includes:

    a. name, address, and telephone number of the owner or operator;

    b. name, address, and telephone number of the facility;

    c. date, time, and type of incident (e.g., fire, explosion);

    d. name and quantity of material(s) involved;

    e. the extent of injuries, if any;

    f. an assessment of actual or potential hazards to human health or the environment, where this is applicable; and

    g. estimated quantity and disposition of recovered material that resulted from the incident.

    Response: Cytec will note in the operating record the time, date, and details of any incident that requires implementation of the Contingency Plan involving hazardous waste management units. Cytec will submit a written report on the incident to the administrative authority within 15 days after the incident to include:
    - name, address, and telephone number of the owner or operator;

- name, address, and telephone number of the facility;
- date, time, and type of incident (e.g., fire, explosion);
- name and quantity of material(s) involved;
- the extent of injuries, if any;
-an assessment of actual or potential hazards to human health or the environment, where this is applicable; and
-estimated quantity and disposition of recovered material that resulted from the incident.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984) amended LR 10:496 (July 1984), LR 16:614 (July 1990), LR 18:1256 (November 1992).

§1515. Personnel Training

A. Instruction Program

1. Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this Section. The owner or operator must ensure that this program includes all the elements described in the document required in LAC 33:V.1515.D.3.

   Response: Cytec maintains a training program for Fortier Plant personnel involved with the management of hazardous waste that ensures the facility's compliance with the applicable requirements. The training program consists of classroom instruction and/or on-the-job training. A copy of the Training Plan is included in Appendix S.

2. This program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.

   Response: The training program is overseen and directed by a person(s) trained in hazardous waste management procedures. The training sessions are facilitated by environmental, safety and/or process personnel with the appropriate training in the respective topical areas. The training is customized to provide instruction which teaches the Fortier Plant personnel hazardous waste management procedures (including Contingency Plan implementation) relevant to the positions in which they are employed in the various areas of the Fortier Plant.

3. At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:

   a. procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

   b. key parameters for automatic waste feed cut-off systems;

c. communications or alarm systems;

d. response to fires or explosions;

e. response to groundwater contamination incidents; and

f. shutdown of operations.

Response: The training program is designed to ensure that the Fortier Plant personnel are able to respond effectively to emergencies associated with hazardous waste and hazardous waste management units by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:
-procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment
-key parameters for automatic waste feed cut-off systems;
-communications or alarm systems;
-response to fires or explosions;
-response to groundwater contamination incidents; and
-shutdown of operations.
A copy of the Training Plan is included in Appendix S.

4. The facility operator shall conduct training sessions to be held at regular intervals for personnel in routine plant operation and also to inform and train the plant contingency team, representatives of local fire and police departments, and emergency response teams of plant layout, location of possible hazards, emergency equipment location and operation, the evacuation plan and route, power and waste stream cut-offs, communications equipment and phone numbers of all required contacts, and other critical information and procedures.

Response: Cytec will conduct training sessions at regular intervals for Fortier Plant personnel in plant operations that routinely handle hazardous wastes. The training intervals will vary depending upon the type and extent to which the personnel in each unit manage hazardous wastes. A copy of the Training Plan is included in Appendix S.

The training of the Fortier Plant Emergency Response Team (i.e. plant contingency team) and familiarization of the representatives of local fire and police departments, and emergency response teams of plant layout, location of possible hazards, emergency equipment location and operation, the evacuation plan and route, power and waste stream cut-offs, communications equipment and phone numbers of all required contacts, and other critical information and procedures is addressed in the Contingency Plan in Appendix Q.

B. Facility personnel must successfully complete the program required in LAC 33:V.1515.A within six months after the effective date of these regulations or six months after the date of their employment or assignment to a facility, whichever is later. Employees hired after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements in LAC 33:V.1515.A.

Response: The Fortier Plant personnel will successfully complete the hazardous

waste training program within six months after the date of their employment or assignment to a position responsible for managing hazardous waste, whichever is later. Employees must not work in unsupervised positions related to hazardous waste management until they have completed the hazardous waste training requirements.

C. Facility personnel must take part in an annual review of the initial training required in LAC 33:V.1515.A.

Response: Fortier Plant personnel will participate in an annual review of the initial hazardous waste training requirements.

D. The owner or operator must maintain the following documents and records at the facility:

1. the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

   Response: Cytec will maintain records at the facility documenting the job title for each position at the Fortier Plant related to hazardous waste management, and the name of the employee filling each job.

2. a written job description for each position listed in LAC 33:V.1515.D.1. This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but must include the requisite skill, education, or other qualifications and duties of employees assigned to each position;

   Response: Cytec will maintain records at the facility documenting a written job description for each position at the Fortier Plant related to hazardous waste management. This written job description is consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, and includes the requisite skill, education, or other qualifications and duties of employees assigned to each position at the Fortier Plant related to hazardous waste management.

3. a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed in LAC 33:V.1515.D.1; and

   Response: The Training Plan includes a written description of the type of both introductory and continuing training that will be given to each person filling a position at the Fortier Plant related to hazardous waste management. A copy of the Training Plan is included in Appendix S. The amount of training will vary dependent on the position and will be maintained at the facility.

4. records documenting that the training or job experience required under LAC 33:V.1515.A, B, and C have been given to, and completed by, facility personnel.

   Response: Cytec maintains records at the facility documenting that the training or job experience required by the hazardous waste training program have been given to, and completed by, Fortier Plant personnel employed in positions at the Fortier Plant related to hazardous waste management.

E. Training records on current personnel must be kept until closure of the facility; training records on

former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

Response: Cytec will maintain training records on current personnel until closure of the Fortier Plant. Cytec will maintain training records on former employees for at least three years from the date the employee last worked at the Fortier Plant. Personnel training records may accompany personnel transferred within Cytec.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

§1517. General Requirements for Ignitable, Reactive, or Incompatible Wastes

A. The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction including but not limited to: open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the owner or operator must restrict smoking and open flame to specially designated locations. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

Response: Cytec takes precautions to prevent accidental ignition or reaction of ignitable or reactive waste by segregating and protected these waste streams from sources of ignition or reaction including but not limited to: open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. Cytec has programs in place, structures, and equipment used at the Fortier Plant to prevent accidental ignition or reaction of ignitable, reactive, or incompatible wastes. For example, cutting, burning, welding and other heat or spark generating activities are controlled through the use of a Safety Work Permit system, which requires appropriate precautions be taken prior to and during such work. A special 'hot work" section of the permit must be completed in addition to the standard safety work permit. All "hot work" permits must be signed only by personnel that are qualified to approve such work.

No smoking is permitted inside the Fortier Plant except in certain designated areas. All visitors are reminded of this rule and are monitored for compliance. In addition, "No Smoking" signs are posted in critical areas as an added reminder to all visitors, contractors and employees.

B. The owner or operator of a facility that treats, stores, or disposes of ignitable or reactive waste, or mixes incompatible waste or incompatible wastes and other materials, must take precautions to prevent reactions which:

1. generate extreme heat or pressure, fire or explosions, or violent reactions;

2. produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment;

3. produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

4. damage the structural integrity of the device or facility; and

5. through other like means threaten human health or the environment.

Response: Cytec has the potential to manage ignitable or reactive wastes. Therefore, precautions are taken to prevent reactions which might generate extreme heat or pressure, fire or explosions, or violent reactions; produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment; produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions; damage the structural integrity of the device or facility; and through other like means threaten human health or the environment. The only "reactive" hazardous waste streams generated and managed at the Fortier Plant consist of process wastes that contain cyanides which may be released at low pH. General measures taken to segregate incompatible streams and prevent any hazardous interaction include:

Wastes are transferred to tanks and deep wells via pipelines that are dedicated for specific waste streams. The transfer of wastes in a closed system does not permit the commingling of incompatible, reactive or ignitable wastes, in such a manner that would cause an adverse reaction.

Acidic waste streams are not commingled with cyanide bearing wastes unless the waste stream is neutralized prior to commingling to prevent any adverse reactions.

C. In landfills and burial sites, incompatible wastes shall be adequately separated to avoid mixing of the wastes during operation or after closure.

Response: The requirements of LAC 33:V.1517.C. do not apply to Cytec, because Cytec doe not operate landfills or burial sites.

D. Treatment and storage facilities containing ignitable, reactive, or incompatible wastes shall be sufficiently separated or protected to prevent mixing, ignition, or reaction as a result of a spill, tank failure, or other cause. Protection shall include use of container materials compatible with the wastes contained therein.

Response: The Fortier Plant hazardous waste management units containing ignitable, reactive, or incompatible wastes are sufficiently separated or protected to prevent mixing, ignition, or reaction as a result of a spill, tank failure, or other cause. The potentially incompatible waste streams are segregated and managed in separate and closed systems to prevent mixing of acidic and cyanide bearing waste streams. The concrete secondary containment structures are also designed to prevent the mixing of acidic and cyanide bearing waste streams in the event of a spill.

E. Any container, including tank trucks, used to transport waste shall be cleaned before leaving the disposal site. Such cleaning should be by a method or methods necessary to remove the hazardous constituents to a level which will not cause an incompatibility with any subsequent shipment and/or of

itself render any future load hazardous. All material resulting from such cleaning shall be considered a hazardous waste unless otherwise approved by the administrative authority.

Response: The requirements of LAC 33:V.1517.E. do not apply to Cytec, because Cytec is not a disposal site that receives hazardous waste from off-site. Containers used to manage hazardous waste on-site will either be shipped off-site to an authorized disposal site or be bulked into a larger container on-site. In the later case, the containers are rendered empty and decontaminated prior to reuse to eliminate any possibility of incompatibility.

F. When required to comply with LAC 33:V.1517.A and B, the owner or operator must document that compliance. This documentation may be based on references to published scientific or engineering literature, data from trial tests (e.g., bench scale or pilot scale tests), waste analyses, or the results of the treatment of similar wastes by similar treatment processes and under similar operating conditions.

Response: Cytec maintains documentation to demonstrate compliance with LAC 33:V.1517.A and B in the operating record in the form of references to published scientific or engineering literature, data from trial tests (e.g., bench scale or pilot scale tests), waste analyses, or the results of the treatment of similar wastes by similar treatment processes and under similar operating conditions.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

§1519. General Waste Analysis

A. Hazardous Waste Chemical and Physical Analysis

1. Before an owner or operator treats, stores, or disposes of any hazardous waste, or non-hazardous wastes if applicable under LAC 33:V.3513.D, he or she must obtain a detailed chemical and physical analysis of a representative sample of the waste. At a minimum, this analysis must contain all the information which must be known to treat, store, or dispose of the waste in accordance with all requirements of LAC 33:V.Chapters 15 and 22.

   Response: Cytec will maintain a chemical and physical analysis of a representative sample of the waste sufficiently detailed in order to treat, store, or dispose of the waste in accordance with applicable requirements. The analysis may consist of process knowledge and/or analytical data, as appropriate.

2. The analysis may include data developed under LAC 33:V.Chapter 49 and existing published or documented data on the hazardous waste or on hazardous waste generated from similar processes.

   Response: Cytec acknowledges the above citation.

3. The analysis must be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis must be repeated:

   a. when the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous wastes, or non-hazardous wastes if applicable under LAC

33:V.3513.D, has changed; and

b. for off-site facilities, when the results of the inspection required in LAC 33:V.1519.A.4 indicate that the hazardous waste received at the facility does not match the waste designated in the accompanying manifest or shipping paper.

Response: Cytec will repeat the analysis as necessary to ensure that it is accurate and up to date. The analysis will be repeated when the process or operation generating the hazardous wastes has changed and process knowledge is determined to be insufficient.

4. The owner or operator of an off-site facility must inspect and, if necessary, analyze each hazardous waste movement received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

Response: The requirements of LAC 33:V.1519.A.4. do not apply to Cytec because Cytec is not an off-site facility that receives hazardous waste.

B. The owner or operator must develop and follow a written waste analysis plan that describes the procedures that he or she will carry out to comply with LAC 33:V.1519.A. He or she must keep this plan at the facility. At a minimum, the plan must specify:

Response: Cytec has developed a written Waste Analysis Plan that describes the procedures that will be carried out to comply with LAC 33:V.1519.A. A copy of the Waste Analysis Plan will be kept at the Fortier Plant. The Waste Analysis Plan is included in Appendix N.

1. the parameters for which each hazardous waste, or non-hazardous waste if applicable under LAC 33:V.3513.D, will be analyzed and the rationale for the selection of these parameters (i.e., how analysis for these parameters will provide sufficient information on the waste's properties to comply with LAC 33:V.1519.A);

Response: The Waste Analysis Plan specifies the parameters for which each hazardous waste will be analyzed and the rationale for the selection of these parameters. A copy of the Waste Analysis Plan is included in Appendix N.

2. the test methods as specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110, or an equivalent method approved by the administrative authority, which will be used to test for these parameters; and

Response: The Waste Analysis Plan references the test methods as specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110, or an equivalent method approved by the administrative authority, which will be used to test for these parameters. A copy of the Waste Analysis Plan is included in Appendix N.

3. the sampling method which will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using a method approved by the administrative authority; [Comment: See LAC 33:V.105.I for related discussion.]

Response: The Waste Analysis Plan specifies the sampling methods which will be used to obtain a representative sample of the waste to be analyzed. A copy of the Waste Analysis Plan is included in Appendix N.

4. the plan must further specify the frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date;

   Response: The Waste Analysis Plan specifies the frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date. A copy of the Waste Analysis Plan is included in Appendix N.

5. the Quality Assurance and Quality Control (QA/QC) procedures used to ensure the waste sampling and analysis are satisfactory;

   Response: The Waste Analysis Plan specifies the Quality Assurance and Quality Control (QA/QC) procedures used to ensure the waste sampling and analysis are satisfactory. A copy of the Waste Analysis Plan is included in Appendix N.

6. the plan must further specify for off-site facilities the waste analyses that hazardous waste generators have agreed to supply; and

   Response: The requirements of LAC 33:V.1519.B.6. do not apply to Cytec because Cytec is not an off-site facility that receives hazardous waste.

7. where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in LAC 33:V.1517, 1711.D, 1741.D, 2515, 3107, and 2245;

   Response: The Waste Analysis Plan specifies the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in LAC 33:V.1517, 1711.D, 1741.D, and 2245, as applicable. A copy of the Waste Analysis Plan is included in Appendix N.

8. for surface impoundments exempted from land disposal prohibitions under LAC 33:V.2237, the procedures and schedules for:

   a. the sampling of impoundment contents,

   b. the analysis of test data, and

   c. the annual removal of residues which are not delisted under LAC 33:V.105.M or which exhibit a characteristic of hazardous waste and either:

      i. do not meet applicable treatment standards of LAC 33:V.Chapter 22, Subchapter B, or
      ii. where no treatment standards have been established:

         (a) such residues are prohibited from land disposal under LAC 33:V.2213, or

         (b) such residues are prohibited from land disposal under LAC 33:V.2215.

Response: The requirements of LAC 33:V.1519.B.8. do not apply to Cytec because Cytec does not manage hazardous waste in surface impoundments.

C. For off-site facilities, the required waste analysis plan must also specify the procedures which will be used to inspect and, if necessary, analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan must describe:

1. the procedures which will be used to determine the identity of each movement of waste managed at the facility; and

2. the sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling. (LAC 33:V.517.C requires that the waste analysis plan be submitted with Part II of the permit application.)

3. the procedures that the owner or operator of an off-site landfill receiving containerized hazardous waste will use to determine whether a hazardous waste generator or treater has added a biodegradable sorbent to the waste in the container.

Response: The requirements of LAC 33:V.1519.C. do not apply to Cytec because Cytec is not an off-site facility that receives hazardous waste.

D. Certification. All waste analysis plans must be certified by a Louisiana licensed professional engineer (PE).

Response: Cytec's Waste Analysis Plan is certified by a Louisiana licensed professional engineer (PE). A copy of the certification is included with the Waste Analysis Plan in Appendix N.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 15:378 (May 1989), LR 16:220 (March 1990), LR 17:478 (May 1991), LR 17:658 (July 1991), LR 18:1256 (November 1992), LR 20:1000 (September 1994), LR 20:1109 (October 1994), LR 21:266 (March 1995), LR 21:1334 (December 1995), LR 22:818 (September 1996).

§1521. Chemical, Physical, and Biological Treatment Facilities (Wastes Only)

In addition to the requirements listed below, a permit application shall address the technical requirements in LAC 33:V.Chapters 15, 19, 21, 29, 33, 35, and 37.

Response: Cytec utilizes physical treatment for some hazardous waste streams prior to deep well injection. The physical treatment systems at the Fortier Plant include the Wastewater Column Bottoms (WWCB) Well Injection Pretreatment System, the Recovery Column Bottom (RCB) (formerly Net Stripper Bottoms (NSB) Well Injection Pretreatment System and the Miscellaneous Effluent (MET) Well Injection Pretreatment System. All of these treatment systems are comprised of tanks and filters used to remove solids prior to on-site disposal by deep well injection. No chemical or biological treatment facilities are employed for the treatment of hazardous wastes, although pH control is maintained in treatment facilities to avoid any possibility of adverse reactions i.e. cyanide release.

A. Below-surface basins are governed by LAC 33:V.2903.A.

Response: The requirements of LAC 33:V.1521.A. do not apply to Cytec, because Cytec does not utilize below-surface basins for the treatment of hazardous waste.

B. Above-ground and mixing and other facilities in basins shall be certified by the designing engineer or manufacturer.

Response: The requirements of LAC 33:V.1521.B. do not apply to Cytec, because Cytec does not perform above-ground and mixing and other facilities in basins for the treatment of hazardous waste.

C. Treatment techniques shall include proper chemical analysis or data collecting such as is necessary to determine compatibility with existing treatment facilities, prevention of the release of toxic gases, and provisions for bacterial control and for safety of operating personnel.

Response: Cytec utilizes treatment techniques including proper chemical analysis and/or data collection such as is necessary to determine compatibility with existing treatment facilities, prevention of the release of toxic gases, and provisions for bacterial control and for safety of operating personnel. Cytec uses process knowledge and obtains analytical data, as necessary, to protect and optimize the treatment system , prevent adverse reactions and operate safely.

D. Pilot or bench-scale tests or reliable operating data must be obtained for any new or altered hazardous waste prior to introduction into an existing or new treatment sequence.

Response: Cytec will obtain pilot or bench-scale tests or reliable operating data for any new or altered hazardous waste,which composition or characteristics differs substantially from the existing waste, prior to introduction into an existing or new treatment sequence.

E. Storage and handling procedures insuring protection of human health and the environment must be observed for all treatment chemicals or reagents.

Response: Cytec will properly store and handle all treatment chemicals or reagents to insure protection of human health and the environment.

F. Proper design and operation of all equipment must be maintained to insure minimum spillage, foaming, or misting.

Response: Cytec maintains proper design and operation of hazardous waste equipment to insure minimum spillage, foaming or misting. Foaming and misting are highly unlikely since the hazardous waste is managed in closed systems comprised of tanks and filters. The possibility of spillage is minimized through the use of monitoring devices, such as level indicators equipped with high level alarms, pressure indicators, operator training and by performing visual inspections, as described in the Inspection Plan in Appendix P. Monitoring devices for hazardous waste treatment units are discussed in greater detail in the responses to LAC 33:V.Chapter 19. In addition, a majority of the operations at the

Fortier Plant are automated and controlled by a Distributed Control System (DCS). The DCS is capable of providing historical trends, which assist the operators in identifying potential problems in advance and providing an opportunity to take corrective action to rectify the situation.

G. Reserve emergency storage must be maintained for critical process areas to insure against operational mishaps and inadvertent volumetric surges.

Response: Cytec maintains reserve emergency storage capacity by maintaining a relative low operating level in the Miscellaneous Effluent (MET) 1 Tank, which has a nominal capacity of 1 million gallons, and the MET 2 Tank, which has a nominal capacity of 2 million gallons, to insure against operational mishaps and inadvertent volumetric surges.

H. Flow safeguards and cut-offs must be included in the flow system to avoid improper operation, overflow, or treatment defects.

Response: Cytec has provided flow safeguards and cut-offs in the flow system to avoid improper operation, overflow, or treatment defects. These safeguards and cut-offs include operator training, automatic valves and manual valves to route flows as necessary, check valves to prevent backflow, alarms to alert operators, level indicators and pressure relief devices and pressure indicators to detect improper operation. Operations at the Fortier Plant are controlled by a Distributed Control System (DCS), which possesses two levels of alarm. The first is a caution alarm (Hi or Lo) which sounds when operating parameters are approaching pre-established limits. If the pre-established limit is exceeded, then the second alarm sounds (HiHi or LoLo). The two levels of alarms provide operations personnel with an opportunity to take the necessary steps to correct the situation. The graphic capabilities of the DCS allow the operator to view current operating conditions, as well as a historical data trends. This tool also enables the operators to more rapidly assess situations as they develop and quickly develop solutions based upon previous experience. The computer network at Fortier enables authorized operational and technical personnel to access real time data from any location in the Fortier Plant computer network. An additional security level is in place to ensure that only personnel with the appropriate access authority can enter changes to the system. Cytec has redundant systems which add an independent protection layer to improve operations.

The Fortier Plant has programs in place, structures, and equipment to mitigate effects of equipment failure, power outages, inclement weather, or other abnormal conditions. Measures taken to guard against power failure and to mitigate the effects of a power failure on plant operations and emergency systems include, but are not limited to: two independent sources of power from Entergy; automatic start electric and diesel pumps for fire water at the river dock and settling basin; battery operated emergency power units for critical electrically driven equipment plus alternate steam or diesel driven spares; pneumatic critical instrumentation with reservoirs at operating units plus alternate steam and electrical driven plant air compressors; fail safe control systems; safety interlock systems; operation of telephone system, critical alarms and safety systems with a battery operated backup; and individual power supply cables for some systems.

Critical equipment items in the hazardous waste treatment systems are installed as spare pairs so that any single item failure will not effect the operation of the system. For example, all filters are operated as spare pairs; the Catalyst Settling Tank and Primary Filter Feed Tank serve the same function; the North and South WWCB Backwash Tanks serve the same function; MET 1 and MET 2 Tanks serve the same function; and deep well injection pumps are provided with installed spares.

Cytec has spare parts available in the on-site stores warehouse or the parts can be obtained overnight, based upon availability, using an existing contract. The deep well injection system is provided with a diesel powered injection pump to maintain a flow of clarified Mississippi River water to the injection wells in the event of a power failure.

Additional information is provided in the response to LAC 33:V.523.C.

I. Residual sludges or by-products shall be analyzed before disposition within the treatment sequence.

Response: The requirements of LAC 33:V.1521.I. do not appear to apply to Cytec, because Cytec does not dispose of residual sludges or by-products within the hazardous waste treatment sequence. However, Cytec will characterize waste streams generated on-site using analytical data or process knowledge in accordance with the approved Waste Analysis Plan in Appendix N prior to disposal.

J. An air monitoring system is required under LAC 33:V.3305.E.

Response: The hazardous waste treatment facilities at the Fortier Plant consist of tanks and filters which are closed systems equipped with air emissions control devices, such as scrubbers. Furthermore, Cytec has an extensive Leak Detection and Repair (LDAR) program as required by applicable air and hazardous waste regulations. Cytec does have installed and portable air monitoring devices available on-site. The installed devices consist of Monotox continuous Hydrogen Cyanide (HCN) analyzers located at the Acrylonitrile Plant and Methyl Methacrylate (MMA) Plant. The portable devices consist of Draeger Tubes, particulate samplers and personnel exposure monitors. The Draeger Tubes are the most convenient and common devices used to provide detection and quantification of possible air contaminants. Additionally, air samples may be collected and analyzed for suspected contaminants by the on-site laboratory or an off-site contract laboratory. Acrylonitrile Plant and Acrylamide Plant employees are monitored twice per year for acrylonitrile and acrylamide, respectively, using personnel exposure monitoring devices as part of the industrial hygiene program to determine concentrations encountered during a normal work day. Additional monitoring may be performed as required as a result of leaks or general complaints. The requirement for an installed air monitoring system with continuous recording does not apply to Cytec, because Cytec is not a commercial hazardous waste facility.

The Fortier Plant has programs in place, structures, and equipment to monitor air pollution affecting area outside site. In general, the Fortier Plant operations are

conducted in compliance with the applicable air emission limits imposed by the current permits. The Fortier Plant has an extensive leak detection and repair (LDAR) program to monitor all applicable components and make repairs as necessary to minimize fugitive emissions. The Fortier Plant has procedures to receive, document and investigate citizen complaints regarding odors. If the source of the complaint is confirmed, then corrective action is taken to eliminate the source, if possible. The Safety Department performs employee exposure monitoring in compliance with applicable OSHA requirements, which also serve to reduce off-site impact.

Cytec is a member of the River Region Environmental Association (RREA), which operates an ambient air monitoring network. There are a total of three (3) ambient air monitoring stations located in towns of Ama, Hahnville and Wallace. The ambient air monitoring station located in Ama is less than one half mile west of the Fortier Plant. The ambient air monitoring station monitors particulate matter (PM-100, carbon monoxide, sulfur dioxide and oxides of nitrogen. There has never been a recorded violation of any ambient air standard at the ambient air monitoring station located in Ama, which is within ½ mile of the Fortier property.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 18:1256 (November 1992).

§1523. Surveillance and Monitoring

A. Primary responsibility for the proper handling of hazardous wastes is assumed by the industry operating under these rules and regulations and cooperating with the department in meeting the purposes of the Act. As part of this responsibility, the owner or operator of any treatment, storage, or disposal facility shall develop a schedule of routine facility inspections and shall keep a log or record of all inspections carried out thereunder. The owner or operator shall likewise develop and adhere to a waste analysis plan to be approved by the department.

Response: Cytec assumes the primary responsibility for the proper handling of hazardous wastes, as applicable, under these rules and regulations and cooperating with the department in meeting the purposes of the Act. As part of this responsibility, Cytec will maintain a schedule of routine facility inspections and shall keep a log or record of all inspections carried out thereunder. Likewise, Cytec will maintain and adhere to the Waste Analysis Plan in Appendix N as approved by the department.

B. Department surveillance and monitoring includes the following:

1. analysis of manifests and manifest reports to determine that all wastes generated are disposed of in permitted sites and that the proper disposal method has been used;

2. periodic inspections required by the permit maintenance program to insure that facilities treating, storing, and disposing of hazardous wastes are operated in conformity with the terms of the permit and these rules and regulations;

3. spot inspections and sampling by the traveling laboratory and the analytical and inspection team;

4. a systematic program to conduct or to require investigations and recording of the groundwater, leachate, and air monitoring systems;

5. response to citizen complaints and suggestions concerning operation of the system; and

6. such other procedures as may be deemed necessary by the administrative authority.

Response: Cytec acknowledges the above citation.

C. Violations discovered through such surveillance and monitoring shall be the subject of enforcement actions pursuant to LAC 33:V.107 of these regulations.

Response: Cytec acknowledges the above citation. Cytec will make every effort to correct any deficiencies discovered through such surveillance and monitoring and to comply with applicable regulations. Cytec does not anticipate any enforcement action as a result of the routine surveillance and monitoring.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

§1525. Emergency Response

A. Purpose. To provide for control and clean-up of accidental spills and other emergency situations involving hazardous wastes resulting from a violation of a requirement of these regulations or the Act.

B. Program. The department, working with the Department of Public Safety, will establish the following program:

1. emergency response equipment and teams located in strategic locations;

2. emergency response plan involving a communication system, cooperation with local police and fire departments, training program based, as a minimum, on the "emergency information card," and an operations plan for each class of emergency situation; and
3. the Emergency Response Program will respond to all in-transit accidents and spills, and respond to on-site emergencies when called by the operator or in accordance with provisions of LAC 33:V.1513.F.

Response: Cytec acknowledges the above citation. In addition to LDEQ's efforts, Cytec has an Emergency Response and Incident Management (ERIM) Team that is capable of responding to accidental spills and emergency situations.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

§1527. Receiving and Monitoring Incoming Waste

Response: The requirements of LAC 33:V.1527 do not apply to Cytec, because Cytec does not treat, store or dispose of hazardous waste generated from off-site.

§1529. Operating Record and Reporting Requirements

A. The owner or operator must keep a written operating record at his facility.

Response: Cytec will keep a written operating record at the Fortier Plant.

B. Records of each hazardous waste received, treated, stored, or disposed of at the facility must be recorded in the following manner, as they become available, and maintained in the operating record until closure of the facility.

Response: Cytec will maintain records of each hazardous waste treated, stored, or disposed of at the Fortier Plant, as the information becomes available, in the operating record until closure of the facility, as applicable.

1. A description by its common name and the EPA hazardous waste number(s) (LAC 33:V.Chapter 49) which apply to the waste and the quantity of the waste received. The waste description also must include the waste's physical form, i.e., liquid, sludge, solid, or contained gas. If the waste is not listed in LAC 33:V.Chapter 49, the description also must include the process that produced it.

   Response: The waste description will include its common name, all applicable EPA hazardous waste number(s), quantity of the waste, physical form, and the description of the process that produced it, if required.

2. Each hazardous waste listed in LAC 33:V.109, and each hazardous waste characteristic defined in LAC 33:V.105.B has a four-digit EPA hazardous waste number assigned to it. This number must be used for record keeping and reporting purposes. Where a hazardous waste contains more than one listed hazardous waste, or where more than one hazardous waste characteristic applies to the waste, the waste description must include all applicable EPA hazardous waste numbers.

   Response: Cytec will use all applicable EPA waste codes to describe waste for recordkeeping and reporting purposes.

3. Record the estimated or manifest-reported weight, or volume and density, where applicable, in one of the units of measure specified in Table 1.
   Table 1. Units For Reporting
   Units of Measure Code 1
   Gallons G
   Gallons per hour E
   Gallons per Day U
   Liters L
   Liters per Hour H
   Liters per Day V
   Short Tons per Hour D
   Metric Tons per Hour W
   Short Tons per Day N
   Metric Tons per Day S
   Pounds per Hour J
   Kilograms per Hour R

Cubic Yards Y
Cubic Meters C
Acres B
Acre-feet A
Hectares Q
Hectare-meter F
Btu's per Hour I
1 Single digit symbols are used here for data processing purposes.

Response: Cytec will record the estimated or manifest-reported weight, or volume and density, where applicable, in one of the units of measure specified in LAC 33:V.1529.Table 1. For example, the unit of measure is usually either Gallons (G), Liters (L), Short Tons, Metric Tons, Pounds, Kilograms, Cubic Yards (Y) or Cubic Meters (C). This list is an example and is not intended to be all inclusive.

4. The method(s) (by handling code(s) as specified in Table 2) and date(s) of treatment, storage, or disposal.
Table 2. Handling Codes for Treatment, Storage, and Disposal Methods
Enter the handling code(s) listed below that most closely represents the technique(s) used at the facility to treat, store, or dispose of each quantity of hazardous waste received.
Storage
S01 Container (barrel, drum, etc.)
S02 Tank
S03 Waste Pile
S04 Surface Impoundment
S05 Drip Pad
S06 Containment Building (Storage)
S99 Other Storage (specify)
Treatment
Thermal Treatment
T06 Liquid injection incinerator
T07 Rotary kiln incinerator
T08 Fluidized bed incinerator
T09 Multiple hearth incinerator
T10 Infrared furnace incinerator
T11 Molten salt destructor
T12 Pyrolysis
T13 Wet air oxidation
T14 Calcination
T15 Microwave discharge
T18 Other (specify)
Chemical Treatment
T19 Absorption mound
T20 Absorption field
T21 Chemical fixation
T22 Chemical oxidation
T23 Chemical precipitation
T24 Chemical reduction
T25 Chlorination
T26 Chlorinolysis
T27 Cyanide destruction
T28 Degradation

T29 Detoxification
T30 Ion exchange
T31 Neutralization
T32 Ozonation
T33 Photolysis
T34 Other (specify)
Physical Treatment
Separation of Components:
T35 Centrifugation
T36 Clarification
T37 Coagulation
T38 Decanting
T39 Encapsulation
T40 Filtration
T41 Flocculation
T42 Flotation
T43 Foaming
T44 Sedimentation
T45 Thickening
T46 Ultrafiltration
T47 Other (specify)
Removal of Specific Components:
T48 Absorption-molecular sieve
T49 Activated carbon
T50 Blending
T51 Catalysis
T52 Crystallization
T53 Dialysis
T54 Distillation
T55 Electrodialysis
T56 Electrolysis
T57 Evaporation
T58 High gradient magnetic separation
T59 Leaching
T60 Liquid ion exchange
T61 Liquid-liquid extraction
T62 Reverse osmosis
T63 Solvent recovery
T64 Stripping
T65 Sand filter
T66 Other (specify)
Biological Treatment
T67 Activated sludge
T68 Aerobic lagoon
T69 Aerobic tank
T70 Anaerobic tank
T71 Composting
T72 Septic tank
T73 Spray irrigation
T74 Thickening filter
T75 Tricking filter
T76 Waste stabilization pond

T77 Other (specify)
T78 [Reserved]
T79 [Reserved]
Boilers and Industrial Furnaces
T80 Boiler
T81 Cement Kiln
T82 Lime Kiln
T83 Aggregate Kiln
T84 Phosphate Kiln
T85 Coke Oven
T86 Blast Furnace
T87 Smelting, Melting, or Refining Furnace
T88 Titanium Dioxide Chloride Process Oxidation Reactor
T89 Methane Reforming Furnace
T90 Pulping Liquor Recovery Furnace
T91 Combustion Device Used in the Recovery of Sulfur Values from Spent Sulfuric Acid
T92 Halogen Acid Furnaces
T93 Other Industrial Furnaces Listed in LAC 33:V.109 (specify)
Other Treatment
T94 Containment Building (Treatment)
Disposal
D79 Underground Injection
D80 Landfill
D81 Land Treatment
D82 Ocean Disposal
D83 Surface Impoundment (to be closed as a landfill)
D99 Other Disposal (specify)
Miscellaneous (Chapter 32)
X01 Open Burning/Open Detonation
X02 Mechanical Processing
X03 Thermal Unit
X04 Geologic Repository
X99 Other Chapter 32 (specify)

Response: Cytec will record the method(s) (by handling code(s) as specified in Table 2) and date(s) of treatment, storage, or disposal. For example, the handling codes use by the Fortier Plant include Storage S01 Container (barrel, drum, etc.) and D79 Underground Injection. This list is an example and is not intended to be all inclusive.

5. The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste must be recorded on a map or diagram of each cell or disposal area. For all facilities, this information must include cross-references to specific manifest document numbers, if the waste was accompanied by a manifest.

Response: Cytec will record the location of each hazardous waste within the facility and the quantity at each location, as applicable. Cytec currently operates five underground injection wells, which are identified on the map in Appendix J, Figure 2. The requirement to maintain a cross reference is not applicable to Cytec, because Cytec does not receive waste accompanied by a uniform hazardous waste

manifest.

6. Records and results of waste analyses performed as specified in these regulations and in LAC 33:V.1517, 1519, 1711, 1741, 2237.A, 2245, 2515, and 3107.

   Response: Cytec will maintain records and results of waste analyses performed as specified in applicable regulations. A copy of the Waste Analysis Plan is included in Appendix N.

7. Summary reports and details of all incidents that require implementing the contingency plan.

   Response: Cytec will maintain summary reports and details of incidents involving hazardous waste units that require implementing the Contingency Plan in Appendix Q.

8. Records and results of inspections required by LAC 33:V.1509.D.

   Response: Cytec will maintain records and results of inspections as required by applicable regulations. A copy of the Inspection Plan is included in Appendix P.

9. Monitoring, testing, or analytical data where required by LAC 33:V.1504, 1711.C)F, 1713, 1741, 1743, 1903, 1907, 1911, 2304, 2306, 2309, 2504, 2507, 2508, 2509, 2709, 2711, 2719, 2904, 2906, 2907, 3119, 3203, 3205, and Chapter 33, as well as corrective action cites.

   Response: Cytec will maintain monitoring, testing, or analytical data as required by applicable regulations.

10. For off-site facilities, notices to generators that the TSD facility has the appropriate permits for and will accept the waste the generator is shipping.

    Response: The requirements of LAC 33:V.1529.B.10. do not apply to Cytec, because Cytec does not receive waste from off-site.

11. All closure cost estimates and, for disposal facilities, all post-closure cost estimates.

    Response: Cytec will maintain closure cost estimates and, for disposal facilities, post-closure cost estimates. The closures estimates are included in the Closure Plan in Appendix T.

12. Records of the quantities (and date of placement) for each shipment of hazardous waste placed in land disposal units under an extension to the effective date of any land disposal prohibition granted pursuant to LAC 33:V.2239, a petition pursuant to LAC 33:V.2241 or 2242, or a certification under LAC 33:V.2235 and the applicable notice required by a generator under LAC 33:V.2245.

    Response: Cytec will maintain records of the quantities and date of placement of hazardous waste placed in the underground injection wells.

13. For an off-site treatment facility, a copy of the notice, and the certification and demonstration, if applicable, required of the generator or the owner or operator under LAC 33:V.2235, 2245, or 2247.

Response: The requirements of LAC 33:V.1529.B.13. do not apply to Cytec, because Cytec does not receive waste from off-site.

14. For an on-site treatment facility, the information contained in the notice (except the manifest number), and the certification and demonstration, if applicable, required of the generator or the owner or operator under LAC 33:V.2235, 2245, or 2247.

    Response: The requirements of LAC 33:V.1529.B.14 do not apply to Cytec, because Cytec does not currently treat prohibited waste to meet applicable treatment standards. If Cytec opts to begin treating prohibited waste to meet applicable treatment standards, then Cytec will comply with applicable regulations.

15. For an off-site land disposal facility, a copy of the notice, and the certification and demonstration, if applicable, required of the generator or the owner or operator of a treatment facility under LAC 33:V.2235, 2245, or 2247, whichever is applicable.

    Response: The requirements of LAC 33:V.1529.B.15. do not apply to Cytec, because Cytec does not receive waste from off-site.

16. For an on-site land disposal facility, the information contained in the notice required of the generator or owner or operator of a treatment facility under LAC 33:V.2245 or 2247, except for the manifest number, and the certification and demonstration, if applicable, required under LAC 33:V.2235, whichever is applicable.

    Response: The requirements of LAC 33:V.1529.B.16. do not apply to Cytec, because Cytec has an exemption from a prohibition granted in response to a petition under LAC 33:V.2271 to allow injection of prohibited wastes with respect to those wastes and wells covered by the exemption.

17. For an off-site storage facility, a copy of the notice, and the certification and demonstration, if applicable, required of the generator or the owner or operator under LAC 33:V.2235, 2245, or 2247; and

    Response: The requirements of LAC 33:V.1529.B.17. do not apply to Cytec, because Cytec does not receive waste from off-site.

18. For an on-site storage facility, the information contained in the notice (except the manifest number), and the certification and demonstration, if applicable, required of the generator or the owner or operator under LAC 33:V.2235, 2245, or 2247.

    Response: Cytec will maintain the information contained in the notice (except the manifest number), and the certification and demonstration as required under LAC 33:V. 2245 or 2247, as applicable.

19. A certification by the permittee no less often than annually, that the permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the permittee to be economically practicable; and the proposed method of treatment, storage or disposal is that practicable method currently available to the permittee which minimizes the present and future threat to human health and the environment.

Response: Cytec will certify annually that a program is in place to reduce the volume and toxicity of hazardous waste generated to the degree that is economically practicable; and that the method of treatment, storage or disposal is a practicable method currently available to minimizes the present and future threat to human health and the environment.

C. Availability, Retention, and Disposition of Records

1. All records, including plans, required under this Part must be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representatives who are duly designated by the administrative authority.

   Response: Cytec acknowledges the above citation.

2. The retention period for all records required under this Section is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the administrative authority.

   Response: Cytec acknowledges the above citation.

3. A copy of records of waste disposal locations and quantities must be submitted to the administrative authority and local land authority upon closure of the facility.

   Response: Cytec has closed two (2) surface impoundments, identified as Surface Impoundments 1 and 3, as hazardous waste disposal units. In accordance with LAC 33:V.3517, Cytec submitted a closure certification to LDEQ by registered mail on April 28, 1989 that the hazardous waste management unit had been closed in accordance with the specifications in the approved closure plan. A copy of the transmittal letter date April 28, 1989 and the certifications by the owner and the independent professional engineer are included in Appendix U.

   The complete closure certification report for Surface Impoundments 1 and 3 has previously been submitted to LDEQ as part of the post-closure permit application. A copy of LDEQ's acceptance of closure certification for Surface Impoundments 1 and 3 dated June 7, 1989 is also included in Appendix U.

   Cytec does not currently operate any hazardous waste surface impoundments, waste piles, land treatment or landfill units on-site that are subject to the requirements of LAC 33:V.3517.A. Cytec will submit a certification signed by the owner or operator and an independent registered professional engineer with supporting documentation within 60 days of completion of final closure of the facility.

   Cytec submitted notification to the Jefferson Parish Department of Zoning regarding the type, location and quantity of hazardous waste disposed of on-site in a letter dated June 14, 1989 to support the survey plat submitted on May 1, 1989. A copy of this documentation is included in Appendix V. This documentation has previously been submitted to LDEQ as part of the post-closure permit application.

D. Annual Report. The owner or operator must prepare and submit a single copy of an annual report to the administrative authority by March 1 of each year. The report form must be used for this report. The annual report must cover facility activities during the previous calendar year. Information submitted on a more frequent basis may be included by reference or in synopsis form where it is not pertinent to reporting under LAC 33:V.Chapter 9 or monitoring reporting under LAC 33:V.3317. It must include the following information:

1. the EPA identification number, name, and address of the facility;

2. the calendar year covered by the report;

3. for off-site facilities, the EPA identification number of each hazardous waste generator from which the facility received a hazardous waste during the year. For imported shipments, the report must give the name and address of the foreign generator;

4. a description and the quantity of each hazardous waste the facility received during the year. For off-site facilities, this information must be listed by EPA identification number of each generator;

5. the method of treatment, storage, or disposal for each hazardous waste;

6. the most recent closure cost estimate under LAC 33:V.3705, and, for disposal facilities, the most recent post-closure cost estimate under LAC 33:V.3709;

7. the certification signed by the owner or operator of the facility or his authorized representative; and

8. monitoring data where required;

9. for generators who treat, store, or dispose of hazardous waste on-site, a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated;

10. for generators who treat, store, or dispose of hazardous waste on-site, a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for the years prior to 1984.

Response: Cytec will prepare and submit a single copy of an annual report to the administrative authority by March 1 of each year on a report form as specified by the administrative authority. The annual report will cover facility activities during the previous calendar year. The annual report will include the following information, as applicable:
- the EPA identification number, name, and address of the facility;
- the calendar year covered by the report;
- a description and the quantity of each hazardous waste;
- the method of treatment, storage, or disposal for each hazardous waste;
- the most recent closure cost estimate under LAC 33:V.3705, and, for disposal facilities, the most recent post-closure cost estimate under LAC 33:V.3709;
- the certification signed by the owner or operator of the facility or his authorized representative; and
- monitoring data where required;
- for generators who treat, store, or dispose of hazardous waste on-site, a description of the efforts undertaken during the year to reduce the volume and toxicity of waste

generated;
- for generators who treat, store, or dispose of hazardous waste on-site, a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for the years prior to 1984. The content of the annual report will comply with current regulations, as revised.

E. Additional Reports. In addition to submitting the annual reports and unmanifested waste reports described in LAC 33:V.1529.D and 909, the owner or operator must also report to the administrative authority:

1. releases, fires, and explosions as specified in LAC 33:V.1513.F.10;

2. facility closures as specified in LAC 33:V.Chapter 35; and

3. as otherwise required by LAC 33:V.Chapters 17, 23, 25, 27, 29, and 33.

Response: Cytec acknowledges the above citation. Cytec will report to the administrative authority in compliance with the applicable regulations.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 15:378 (May 1989), LR 16:220 (March 1990), LR 16:399 (May 1990), LR 17:658 (July 1991), LR 18:1256 (November 1992), LR 20:1000 (September 1994), LR 21:266 (March 1995), LR 22:832 (September 1996).

§1531. Transfer of Ownership

A. Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator must notify the new owner or operator in writing of the requirements of LAC 33:V.Subpart 1.

Response: Cytec acknowledges the above citation. Cytec will notify the new owner or operator in writing of the requirements of LAC 33:V.Subpart I.

B. An owner's or operator's failure to notify the new owner or operator of the requirements in no way relieves the new owner or operator of his obligation to comply with all applicable requirements.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 15:378 (May 1989), LR 16:220 (March 1990), LR 16:399 (May 1990), LR 18:1256 (November 1992).

LAC 33:V.Chapter 17

Title 33
ENVIRONMENTAL QUALITY

Part V. Hazardous Waste and Hazardous Materials

Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 17. Air Emission Standards

§1701. Applicability

The regulations in this Chapter apply to owners and operators of facilities that treat, store, or dispose of hazardous wastes (except as provided in LAC 33:V.1501 and 1705).

> **Response: Cytec has elected to consolidate those components subject to regulation under LAC 33:V. Chapter 17. Subchapter B into the monitoring program conducted in compliance with 40 CFR 63 Subpart H as of July 1, 1998 as stated in the letter from Cytec to LDEQ dated February 19, 1998 and approved by LDEQ by letter dated April 15, 1998. LDEQ and EPA signed a Memorandum of Understanding (MOU) to allow the consolidation of fugitive emission monitoring activities on April 11, 1996. The Louisiana Fugitive Emission Program Consolidation Guidelines Stringency Table clearly indicates that the monitoring requirements of 40 CFR 63 Subpart H are more stringent than any other monitoring requirements including LAC 33:III.Chapter 51 and 40 CFR 264 - RCRA Subpart BB and CC. Likewise, LAC 33:V.1743.M. provides an alternate compliance strategy for facilities subject to regulation under LAC 33:III.Chapter 37 or 51. Cytec has provided a Source Notice and Agreement to LDEQ, in addition to Cytec's notification in the Title V air permit application that Cytec intends to comply with the more stringent requirements of 40 CFR 63 Subpart H for components in Volatile Organic Compound (VOC), Toxic Air Pollutants (TAP) and Volatile Organic Hazardous Air Pollutant (VOHAP) service. This does not include components in ammonia service. A copy of LDEQ's approval letter dated April 15, 1998, Cytec's letter to LDEQ dated February 19, 1998, the MOU dated April 11, 1996, Cytec's letter to LDEQ dated August 29, 1994, LDEQ's response dated September 9, 1994, ,and the notice provided in the Title V air permit application, are included in Appendix PP.**

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 17:658 (July 1991).

LAC 33:V.Chapter 18

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality - Hazardous Waste

Chapter 18. Containment Buildings

§1801. Applicability

A. The requirements of this Section apply to owners or operators who store or treat hazardous waste in units designed and operated under LAC 33:V.1802. These provisions became effective on February 18, 1993, although an owner or operator may have notified EPA or the administrative authority of his intent to be bound by this Section or its federal equivalent at an earlier time. The owner or operator is not subject to the definition of land disposal in LAC 33:V.2203 or R.S. 30:2193 provided that the unit:

1. is a completely enclosed, self-supporting structure that is designed and constructed of manmade materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, uplift, physical contact with the hazardous wastes to which they are exposed, climatic conditions, and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls;

2. has a primary barrier that is designed to be sufficiently durable to withstand the movement of personnel, wastes, and handling equipment within the unit;

3. when used to manage liquids:

   a. has a primary barrier designed and constructed of materials to prevent migration of hazardous constituents into the barrier;

   b. has a liquid collection system designed and constructed of materials to minimize the accumulation of liquid on the primary barrier; and

   c. has a secondary containment system designed and constructed of materials to prevent migration of hazardous constituents into the barrier, with a leak detection and liquid collection system capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time, unless the unit has been granted a variance from the secondary containment system requirements under LAC 33:V.1802.B.

4. has controls as needed to permit fugitive dust emissions to meet the no visible emission standard in LAC 33:V.1802.C.1.d; and

5. has been designed and is operated to ensure containment and prevent the tracking of materials from the unit by personnel or equipment. AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
   HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended LR 21:944 (September 1995).

Response: The requirements of LAC 33:V.Chapter 18 do not apply to Cytec because Cytec does not currently store or treat hazardous waste in containment buildings nor does Cytec anticipate storing or treating hazardous waste in containment buildings.

LAC 33:V.Chapter 19

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials

Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 19. Tanks

§1901. Applicability

The requirements of this Chapter apply to owners and operators of facilities that use tank systems for storing or treating hazardous waste except as otherwise provided in Subsections A and B of this Section or LAC 33:V.105.D.

Response: Cytec acknowledges the above citation.

A. Tank systems that are used to store or treat hazardous waste that contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements of LAC 33:V.1907. To demonstrate the absence or presence of free liquids in the stored/treated waste, the following test method must be used: EPA Method 9095 (Paint Filter Liquids) as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110.

Response: Cytec acknowledges the above citation.

B. Tank systems, including sumps, as defined in LAC 33:V.109, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in LAC 33:V.1907.A.

Response: Cytec acknowledges the above citation.

C. Tanks, sumps, and other such collection devices or systems used in conjunction with drip pads, as defined in LAC 33:V.109 and regulated under LAC 33:V.Chapter 28, must meet the requirements of this Chapter.

Response: Cytec acknowledges the above citation, but does not propose or have situations, facilities or equipment which are addressed by this regulation. There are no drip pads included in this permit application.

D. Tanks meeting the requirements for the accumulation time exclusion of LAC 33:V.305.C and 1109.E.1 are subject to the requirements of LAC 33:V.1903.A, 1905.B—H, 1907.A.6, 1907.B—I, 1909, 1911, 1913, 1915.D, 1917, and 1919.

Response: Cytec acknowledges the above citation. Tanks meeting the requirements for the accumulation time exclusion of LAC 33:V.305.C and LAC 33:V.1109.E.1 are not required to be permitted. Therefore, tanks meeting the accumulation time exclusion are not included in this permit application. Cytec requests that LDEQ include specific language in the permit provisions which clarify that Cytec is authorized to conduct storage and/or treatment in tanks and/or containers for a period of less than 90 days in accordance with LAC 33:V.1109.E. This will allow Cytec to perform the

hazardous waste tank cleanout to obtain thickness measurements and to visually assess the internal and external integrity of the tanks in accordance with applicable regulations.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:651 (November 1987), LR 16:614 (July 1990), LR 18:1375 (December 1992), LR 22:819 (September 1996).

§1903. Assessment of Existing Tank System's Integrity

A. For each existing tank system that does not have secondary containment meeting the requirements of LAC 33:V.1907.B-I, the owner or operator must determine that the tank system is not leaking or is unfit for use. Except as provided in LAC 33:V.1903.B.5.c, the owner or operator must obtain and keep on file at the facility a written assessment reviewed and certified by an independent, qualified, registered professional engineer, in accordance with LAC 33:V.1 2 33:V.513, that attests to the tank system's integrity by November 20, 1988. Tanks excluded from permitting requirements under LAC 33:V.1109.E.1 must have an assessment as described in this Section by November 20, 1990.

Response: Cytec acknowledges the above citation. The following Fortier hazardous waste tank systems were placed in hazardous waste service prior to July 14, 1986 and are therefore "existing" tank systems as defined by LAC 33:V.109:

Tank Number	Tank Name
100-5A	RCB Filter A (formerly referred to as NSB Filter A)
100-5B	RCB Filter B (formerly referred to as NSB Filter B)
100-5C	RCB Filter C (formerly referred to as NSB Filter C)
CF-401A	WW Cartridge Filter
CF-401B	WW Cartridge Filter
CF-401C	WW Cartridge Filter
CF-401D	WW Cartridge Filter
F-401A	WW Primary Filter A
F-401B	WW Primary Filter B
HRD-V50 A	MET Filter A
HRD-V50 B	MET Filter B
HRD-V50 C	MET Filter C
HRD-V50 D	MET Filter D
MF-307	Secondary Filter Feed Tank
T-500	MET Injection Tank
TA-403	Catalyst Settling Tank
TA-404	Primary Filter Feed Tank

All of the above tanks were provided with secondary containment meeting the requirements of LAC 33:V.1907 B-I prior to November 20, 1988. LAC 33:V.1903 therefore does not require that Cytec obtain a written assessment by an independent registered professional engineer of the structural integrity and suitability for handling hazardous waste of these tank systems.

B. This assessment must determine that the tank system is adequately designed and has sufficient

structural strength and compatibility with the waste(s) to be stored or treated, to ensure that it will not collapse, rupture or fail. At a minimum, this assessment must consider the following:

1. design standards(s), if available, according to which the tank and ancillary equipment were constructed;

2. hazardous characteristics of the waste(s) that have been and will be handled;

3. existing corrosion protection measures;

4. documented age of the tank system, if available (otherwise, an estimate of the age); and

5. results of a leak test, internal inspection or other tank integrity examination such that:

   a. for non-enterable underground tanks, the assessment must include a leak test that is capable of taking into account the effects of temperature variations, tank end deflection, vapor pockets and high water table effects, and

   b. for other than non-enterable underground tanks and for ancillary equipment, this assessment must include either a leak test, as described above, or other integrity examination, that is certified by an independent, qualified, registered professional engineer in accordance with LAC 33:V.513, that addresses cracks, leaks, corrosion and erosion.

   c. tank systems that store or treat materials that become hazardous wastes subsequent to July 14, 1986, must conduct this assessment within 12 months after the date that the waste becomes a hazardous waste.

   d. if, as a result of the assessment conducted in accordance with LAC 33:V.1903.A, a tank system is found to be leaking or unfit for use, the owner or operator must comply with the requirements of LAC 33:V.1913.

Response: Cytec acknowledges the above citation. As described above, Cytec does not have any existing tank systems without secondary containment meeting the requirements of LAC 33:V.1907 B-I. Assessments of existing tank systems (as defined by LAC 33:V.109) are therefore not required, and the requirements of this citation are not applicable to this permit application.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:651 (November 1987), LR 16:614 (July 1990), LR 18:1256 (November 1992).

§1905. Design and Installation of New Tank Systems or Components

A. Owners or operators of new tank systems or components must obtain and submit to the administrative authority, at time of submittal of Part II information, a written assessment, reviewed and certified by an independent, qualified registered professional engineer, in accordance with LAC 33:V.513, attesting that the tank system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste. The assessment must show that the foundation, structural support, seams,

connections and pressure controls (if applicable) are adequately designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be stored or treated and corrosion protection to ensure that it will not collapse, rupture or fail. This assessment, which will be used by the administrative authority to review and approve or disapprove the acceptability of the tank system design, must include, at a minimum, the following information:

1. design standard(s) according to which tank(s) and/or the ancillary equipment are constructed;

2. hazardous characteristics of the waste(s) to be handled;

3. for new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system will be in contact with the soil or with water, a determination by a corrosion expert of:

   a. factors affecting the potential for corrosion, including but not limited to:

      i. soil moisture content;
      ii. soil pH;
      iii. soil sulfides level;
      iv. soil resistivity;
      v. structure to soil potential;
      vi. influence of nearby underground metal structures (e.g., piping);
      vii. existence of stray electric current;
      viii. existing corrosion-protection measures (e.g., coating, cathodic protection); and

   b. the type and degree of external corrosion protection that are needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following:

      i. corrosion-resistant materials of construction such as special alloys, fiberglass reinforced plastic, etc;

      ii. corrosion-resistant coating (such as epoxy, fiberglass, etc.) with cathodic protection (e.g. impressed current or sacrificial anodes); and

      iii. electrical isolation devices such as insulating joints, flanges, etc.

4. for underground tank systems components that are likely to be adversely affected by vehicular traffic, a determination of design or operational measures that will protect the tank system against potential damage; and

5. design considerations to ensure that:

   a. tank foundations will maintain the load of a full tank;

   b. tank systems will be anchored to prevent flotation or dislodgment where the tank system is placed in a saturated zone, or is located within a seismic fault zone subject to the standards of LAC 33:V.1503.A.3; and

c. tank systems will withstand the effects of frost heave.

Cytec acknowledges the above citation. The following Fortier hazardous waste tank systems were placed in hazardous waste service subsequent to July 14, 1986 and are therefore new tanks or tank systems as defined by LAC 33:V.109:

Tank No.	Tank Name	Status	Assessments
100-6	RCB / MET Backwash Tank	Replacement for existing tank	TA3, TA4
101-52	MMA Lab Collection Tank	New tank system (proposed)	TA9
MET-1	Miscellaneous Effluent Tank 1	Modification of existing tank	TA1
MET-2	Miscellaneous Effluent Tank 2	New tank system	TA1
F-401C	WW Secondary Filter	Replacement for existing filter	TA5, TA6
F-401D	WW Secondary Filter	Replacement for existing filter	TA2
TA-402	WWCB Well Injection Tank	Replacement for existing tank	TA7, TA8
TA-501A	WWCB Backwash Tank - North	New tank system	TA1
TA-501B	WWCB Backwash Tank - South	New tank system	TA1

Whether each tank was part of a new hazardous waste tank system or was a replacement for an existing tank or filter vessel in the same service is indicated in the above chart. Copies of assessments for each new tank or tank system certified by an independent, qualified registered professional engineer are included in Appendix KK, and are numbered for reference as indicated above. The tank system design assessments referenced above address all of the requirements of the cited regulation, specifically including the design standards to which the tanks and ancillary equipment are constructed, the hazardous characteristics of the wastes which will be handled, and considerations to ensure that the tank foundations will maintain the load of a full tank and anchorage provisions to prevent flotation or dislodgement. All tank system components which are in contact with soil or ground water have been reviewed by a corrosion expert to confirm that they have measures which will successfully deal with all of the listed factors affecting the potential for corrosion. No Cytec underground tank system components will be adversely affected by vehicular traffic, and no tank system components will be adversely affected by frost heave. Cytec Fortier tank systems are not located in a seismic fault zone subject to the standards of LAC 33:V.1503.A.3.

B. The owner or operator of a new tank system must ensure that proper handling procedures are adhered to in order to prevent damage to the system during installation. Prior to covering, enclosing, or placing a new tank system or component in use, an independent, qualified installation inspector or an independent, qualified, Louisiana registered professional engineer, either of whom is trained and experienced in the proper installation of tank systems or component, must inspect the system for the presence of any of the following items:

1. weld breaks;

2. punctures;

3. scrapes of protective coatings;

4. cracks;

5. corrosion;

6. other structural damage or inadequate construction/installation. All discrepancies must be remedied before the tank system is covered, enclosed or placed in use.

Response: Cytec acknowledges the above citation. Prior to any new tank system or component being covered or placed in use, the system or component was inspected by an independent Louisiana registered professional engineer trained and experienced in the proper installation of tank systems and components for the presence of weld breaks, punctures, scrapes of protective coatings, cracks, corrosion, or other structural damage or inadequate construction or installation. Any discrepancies observed were satisfactorily remedied before the tank system or component was covered or placed in service. The tank system assessments referenced in the preceding paragraph include tank system installation assessments which address all of the requirements of the cited regulation.

Installation the proposed MMA Lab Collection Tank system was not completed nor was the tank system in service at the time of submission of this application, so an installation assessment for the 101-52 tank system had not been completed and was not available for inclusion with this application. Cytec has proposed to LDEQ that Cytec complete installation of the 101-52 tank system and be allowed to operate it subject to the accumulation time exclusion of LAC 33:V.1109.E.1 until this permit application is approved and a new permit issued. As part of this application Cytec is requesting that the 101-52 tank system be included as a permitted tank system. Tank system assessment TA9 is a design assessment for 101-52. An installation assessment meeting the requirements of this regulation will be obtained prior to the 101-52 tank system being placed in service.

C. New tank systems or components that are placed underground and that are backfilled must be provided with a backfill material that is a noncorrosive, porous, homogeneous substance and that is installed so that the backfill is placed completely around the tank and compacted to ensure that the tank and piping are fully and uniformly supported.

Response: Cytec acknowledges the above citation. None of the existing Cytec Fortier hazardous waste tanks is located underground. The only underground tank system component is a short length of double wall stainless steel inlet piping for MMA Lab Collection Tank 101-52. This piping was provided with backfill materials that are noncorrosive, porous, and homogeneous and were installed so that the backfill was placed completely around the piping and compacted to ensure that the piping is fully and uniformly supported.

D. All new tanks and ancillary equipment must be tested for tightness prior to being covered, enclosed, or placed in use. If a tank system is found not to be tight, all repairs necessary to remedy the leak(s) in the system must be performed prior to the tank system being covered, enclosed, or placed into use.

Response: Cytec acknowledges the above citation. All Cytec Fortier hazardous waste tanks and ancillary equipment have been tested for tightness prior to being placed in service. Any tank system or component found not to be tight was satisfactorily repaired and retested prior to the tank system or component being

placed in use. Documentation of the tightness tests performed is included in the installation assessment reports in Appendix KK.

E. Ancillary equipment must be supported and protected against physical damage and excessive stress due to settlement, vibration, expansion, or contraction.

Response: Cytec acknowledges the above citation. All Cytec Fortier hazardous waste tank system ancillary equipment is specified to meet ANSI/ASME B31.3 *Process Piping* support requirements. Compliance with this standard ensures that ancillary equipment will be supported and protected against physical damage and excessive stress due to settlement, vibration, expansion, or contraction.

F. The owner or operator must provide the type and degree of corrosion protection recommended by an independent corrosion expert, licensed in Louisiana, based on the information provided under LAC 33:V.1905.A.3 of this Section, or other corrosion protection if the administrative authority believes other corrosion protection is necessary to ensure the integrity of the tank system during use of the tank system. The installation of a corrosion protection system that is field fabricated must be supervised by an independent corrosion expert to ensure proper installation.

Response: Cytec acknowledges the above citation. All Cytec Fortier hazardous waste tank system components have been reviewed for their compatibility with the waste being handled and their suitability for the service conditions they will experience, as documented in the assessment reports in Appendix KK. All tank system components which are in contact with soil or ground water have been reviewed by a corrosion expert to confirm that they have measures which will successfully deal with the factors affecting the potential for corrosion. Additional measures to provide protection from corrosion are therefore not required.

G. The owner or operator must obtain and keep on file at the facility written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system in accordance with the requirements of LAC 33:V.1905.A, C, D, E and F of this Section, that attest that the tank system was properly designed and installed and that repairs, pursuant to LAC 33:V.1905.B, C and D of this Section, were performed. These written statements must also include the certification statement as required in LAC 33:V.513.

Response: Cytec acknowledges the above citation. Written reports and certification statements in accordance with LAC 33:V.513 attesting to the design, installation, testing, and repair of tank systems in accordance with the requirements of LAC 33:V.1905 A-F are part of the assessment reports in Appendix KK, and are kept on file at the facility.

H. Owners or operators of new tanks systems or components subject to the accumulation time exclusion of LAC 33:V.1109.E.1 must obtain and submit to the administrative authority, prior to placing the tank system in service, a written assessment, reviewed and certified by an independent registered professional engineer, in accordance with LAC 33:V.513, attesting that the tank system has sufficient structural integrity and is acceptable for storing or treating hazardous waste. The assessment must show that the foundation, structural support, seams, connections, and pressure controls (if applicable) are adequately designed, and that the tank system has sufficient structural strength, compatibility with the waste(s) to be stored or treated, and corrosion protection to ensure that it will not collapse, rupture,

or fail. The assessment, which will be used by the administrative authority to review the acceptability of the tank system design, must include at a minimum the requirements specified in LAC 33:V.1905.A.1-5.

Response: Cytec acknowledges the above citation. MMA Lab Collection Tank system 101-52 is the only Fortier tank system subject to the accumulation time exclusion of LAC 33:V.1109.E.1. Cytec is requesting with this application that the 101-52 tank system become a permitted hazardous waste tank system. Cytec has obtained and submitted to the administrative authority, prior to placing the tank system in service, written assessments of the tank system integrity and suitability for service for all tank systems or components subject to the accumulation time exclusion of LAC 33:V.1109.E.1. The written assessments were reviewed and certified by an independent registered professional engineer in accordance with LAC 33:V.513. The assessments show that the foundation, structural support, seams, connections, and pressure controls are adequately designed, and that the tank system has sufficient structural strength, compatibility with the wastes to being handled, and corrosion protection to ensure that it will not collapse, rupture, or fail. The assessment includes all of the requirements specified in LAC 33:V.1905.A.1-5. Cytec will also comply with this requirement for any accumulation time exclusion systems or components installed in the future.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:651 (November 1987), LR 16:614 (July 1990), LR 16:683 (August 1990).

§1907. Containment and Detection of Releases

A. In order to prevent the release of hazardous waste or hazardous constituents to the environment, secondary containment that meets the requirements of this section must be provided (except as provided in LAC 33:V.1907.F and G):

1. for all new tank systems or components, prior to their being put into service;

2. for all existing tank systems used to store or treat EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027, within two years after November 20, 1988;

3. for those existing tank systems of known and documented age, within two years after November 20, 1988 or when the tank system has reached 15 years of age, whichever comes later;

4. for those existing tank systems for which the age cannot be documented with eight years of November 20, 1988, but if the age of the facility is greater than seven years, secondary containment must be provided by the time the facility reaches 15 years of age, or within two years of November 20, 1988, whichever comes later; and

5. for tank systems that store or treat materials that become hazardous wastes subsequent to November 20, 1988, within the time intervals required in LAC 33:V.1907.A.1—4 except that the date that a material becomes a hazardous waste must be used in place of November 20, 1988;

6. existing tanks of known and documented age and subject to the accumulation time exclusion of LAC 33:V.1109.E.1, November 20, 1991, or by 15 years of age, whichever comes later.

   Response: Cytec acknowledges the above citation. All new and existing Cytec Fortier hazardous waste tank systems and components are provided with secondary containment that meets the requirements of LAC 33:V.1907, as documented in Appendix KK and Appendix MM, except as provided in LAC 33:V.1907.F and G. Any hazardous waste tanks or components including accumulation time exclusion tanks or components installed in the future will also be provided with secondary containment that meets the requirements of LAC 33:V:1907 except as provided in LAC 33:V.1907.F and G.

B. Secondary containment systems must be:

   1. designed, installed and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, groundwater or surface water at any time during the use of the tank system; and

   2. capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

      Response: Cytec acknowledges the above citation. Cytec Fortier hazardous waste secondary containment systems are designed, installed and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, groundwater or surface water at any time during the use of the tank system and are capable of detecting and collecting releases and accumulated liquids until the collected material is removed, as documented in Appendix KK and Appendix MM.

C. To meet the requirements of Subsection B of this Section, secondary containment systems must be at a minimum:

   1. constructed of or lined with materials that are compatible with the waste(s) to be placed in the tank system and must have sufficient strength and thickness to prevent failure owing to pressure gradients (including static head and external hydrological forces), physical contact with the waste to which it is exposed, climatic conditions, and the stress of daily operation (including stresses from nearby vehicular traffic);

   2. placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system, and capable of preventing failure due to settlement, compression, or uplift;

   3. provide with a leak-detection system that is designed and operated so that it will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours, or at the earliest practicable time if the owner or operator can demonstrate to the administrative authority that existing detection technologies or site conditions will not allow detection of a release within 24 hours; and

   4. sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills,

or precipitation. Spilled or leaked waste and accumulated precipitation must be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health and the environment, if the owner or operator can demonstrate to the administrative authority that removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours.

Response: Cytec acknowledges the above citation. Cytec Fortier hazardous waste secondary containment systems are constructed of materials that are compatible with the wastes placed in the tank systems and have sufficient strength and thickness to prevent failure owing to pressure gradients (including static head and external hydrological forces), physical contact with the wastes to which they may be exposed to, climatic conditions, and the stress of daily operation (including stresses from nearby vehicular traffic). Cytec Fortier secondary containment systems are placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system, and capable of preventing failure due to settlement, compression, or uplift. Cytec Fortier secondary containment systems are provided with leak-detection systems that are designed and operated so that they will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours, or at the earliest practicable time if the existing detection technologies or site conditions will not allow detection of a release within 24 hours. Cytec Fortier secondary containment systems are sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation as documented in Appendix KK and Appendix MM. Spilled or leaked waste and accumulated precipitation are removed from the secondary containment systems within 24 hours, or in as timely a manner as is possible to prevent harm to human health and the environment, if removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours.

D. Secondary containment for tanks must include one or more of the following devices:

1. a liner (external to the tank);
2. a vault;
3. a double-walled tank; or
4. an equivalent device as approved by the administrative authority.

Response: Cytec acknowledges the above citation. Secondary containment for all Cytec Fortier hazardous waste tanks is provided by aboveground dikes or vaults constructed of reinforced concrete. All on-ground hazardous waste tanks are also provided with tank bottom leak detection and containment provisions which includes either a liner, double bottom, or an equivalent device, as documented in Appendix KK and Appendix MM.

E. In addition to the requirements of Subsections B—D of this Section, secondary containment systems must satisfy the following requirements.

1. External liner systems must be:

   a. designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

   b. designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.

   c. free of cracks or gaps; and

   d. designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the waste if the waste is released from the tank(s) (i.e., capable of preventing lateral as well as vertical migration of the waste).

2. Vault systems must be:

   a. designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;

   b. designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event;

   c. constructed with chemical-resistant water stops in place at all joints (if any);

   d. provided with an impermeable interior coating or lining that is compatible with the stored waste and that will prevent migration of waste into the concrete;

   e. provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste being stored or treated:

      i. meets the definitions of ignitable waste under LAC 33:V.4903.B of this Part; or

      ii. meets the definition of reactive waste under LAC 33:V.4903.D of this Part, and may form an ignitable or explosive vapor.

   f. provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.

3. Double-walled tanks must be:

   a. designed as an integral structure (i.e., an inner tank completely enveloped within an outer shell) so that any release from the inner tank is contained by the outer shell.

   b. protected, if constructed of metal, from both corrosion of the primary tank interior and of the external surface of the outer shell; and

c. provided with a built-in continuous leak detection system capable of detecting a release within 24 hours, or at the earliest practicable time, if the owner or operator can demonstrate to the administrative authority, and the administrative authority concludes that the existing detection technology or site conditions would not allow detection of a release within 24 hours.

Response: Cytec acknowledges the above citation. The Cytec Fortier hazardous waste secondary containment vault systems are designed or operated to contain 100 percent of the capacity of the largest tank within their boundary. They are also designed or operated to have sufficient excess capacity to contain precipitation from a 25-year, 24-hour rainfall event. Cytec containment vaults are constructed with chemical-resistant waterstops in place at all joints.

The wastes handled by Cytec's hazardous waste tank systems are dilute aqueous wastes which are not susceptible to significant migration into concrete in the time period before they would be removed from the containment system. Interior coating of the secondary containment vaults for these tank systems is therefore not necessary to prevent migration of hazardous components into the concrete.

Fortier tanks do not routinely handle waste which meets the definitions of ignitable waste under LAC 33.V.4903.B or reactive waste under LAC 33.V.4903.D in the dilute mixed form in which the wastes are handled by the tank system components.

Exterior moisture barriers or other provisions to prevent migration of moisture into the vaults are not necessary since all Fortier containment vaults are located above ground and so are not subject to hydraulic pressure.

F. Ancillary equipment must be provided with secondary containment (e.g., trench, jacketing, double-walled piping) that meets the requirements of LAC 33:V.1907.B and C, except for:

1. aboveground piping (exclusive of flanges, joints, valves and other connections) that are visually inspected for leaks on a daily basis;

2. welded flanges, welded joints, and welded connections, that are visually inspected for leaks on a daily basis;

3. sealless or magnetic coupling pumps and sealless valves that are visually inspected for leaks daily; and

4. pressurized aboveground piping systems with automatic shut-off devices (e.g., excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices) that are visually inspected for leaks on a daily basis.

Response: Cytec acknowledges the above citation. Ancillary equipment components located adjacent to the hazardous waste tanks are provided with secondary containment meeting the requirements of LAC 33:V.1907.B and C by the tank containment vaults. Cytec Fortier's hazardous waste pipeline network has been granted a variance from the requirements of LAC 33:V.1907.F in a letter from LDEQ dated November 20, 1991. A copy of the variance letter is included in Appendix G of this application.

G. The owner or operator may obtain a variance from the requirements of this Section if the administrative authority finds, as a result of a demonstration by the owner or operator that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous waste or hazardous constituents into the groundwater; or surface water at least as effectively as secondary containment during the active life of the tank system or that in the event of a release that does migrate to groundwater or surface water, no substantial present or potential hazard will be posed to human health or the environment. New underground tank systems may not, per a demonstration in accordance with LAC 33:V.1907.G.2 of this Section, be exempted from the secondary containment requirements of this Section.

1. In deciding whether to grant a variance based on a demonstration of equivalent protection of groundwater and surface water, the administrative authority will consider:

   a. the nature and quantity of the wastes;

   b. the proposed alternate design and operation;

   c. the hydrogeologic setting of the facility, including the thickness of soils present between the tank system and groundwater; and

   d. all other factors that would influence the quality and mobility of the hazardous constituents and the potential for them to migrate to groundwater or surface water.

2. In deciding whether to grant a variance based on a demonstration of no substantial present or potential hazard, the administrative authority will consider:

   a. the potential adverse effects on groundwater, surface water, and land quality, taking into account:

      i. the physical and chemical characteristics of the waste in the tank system, including its potential for migration;

      ii. the hydrogeological characteristics of the facility and surrounding land;

      iii. the potential for health risks caused by human exposure to waste constituents;

      iv. the potential for damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

      v. the persistence and permanence of the potential adverse effects;

   b. the potential adverse effects of a release on groundwater and quality, taking into account:

      i. the quantity and quality of groundwater and the direction of groundwater flow;

      ii. the patterns of rainfall in the region;

      iii. the proximity and withdrawal rates of groundwater users;

iv. the current and future uses of groundwater in the area; and

v. the existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater quality; and

c. the potential adverse effects of a release on surface water quality, taking into account:

i. the quantity and quality of groundwater and the direction of groundwater flow;

ii. the patterns of rainfall in the region;

iii. the proximity of the tank system to surface waters;

iv. the current and future uses of surface waters in the area, and any water quality standards established for those surface waters; and

v. the existing quality of surface water, including other sources of contamination and the cumulative impact on surface water quality; and

3. The owner or operator of a tank system, for which a variance from secondary containment had been granted in accordance with requirements of LAC 33:V.1907.G.1 at which a release of hazardous waste has occurred from the primary tank system but has not migrated beyond the zone of engineering control (as established in the variance), must

a. comply with the requirements of LAC 33:V.1913, except 1913.D, and:

i. decontaminate or remove contaminated soil to the extent necessary to:

(a) enable the tank system for which the variance was granted to resume operation with the capability for the detection of releases at least equivalent to the capability it had prior to the release; and

(b) prevent the migration of hazardous waste or hazardous constituents to groundwater or surface water; and

ii. if contaminated soil cannot be removed or decontaminated in accordance with LAC 33:V.1907.G.3.i, comply with the requirements of LAC 33:V.1915.B.

4. The owner or operator of a tank system, for which a variance from secondary containment has been granted in accordance with the requirements of LAC 33:V.1907.G.1, at which a release of hazardous waste has occurred from the primary tank system and has migrated beyond the zone of engineering control (as established in the variance), must

a. comply with requirements of LAC 33:V.1913.A—D, and:

i. prevent the migration of hazardous waste or hazardous constituents to groundwater or surface water, if possible, and decontaminate or remove contaminated soil. If contaminated soil cannot be decontaminated or removed or if groundwater has been contaminated, the owner or operator must comply with requirements of LAC 33:V.1915.B; and

ii. if repairing, replacing or reinstalling the tank system, provide secondary containment in accordance with the requirements of LAC 33:V.1907.A—F or reapply for a variance from secondary containment and meet the requirements for new tank systems in LAC 33:V.1905 if the tank system is replaced. The owner or operator must comply with these requirements even if contaminated soil can be decontaminated or removed and groundwater or surface water has not been contaminated.

Response: Cytec acknowledges the above citation. Cytec Fortier's hazardous waste pipeline network has been granted a variance from the requirements of LAC 33:V.1907.F in accordance with the considerations specified in LAC 33:V.1907.G.2, in a letter from LDEQ dated November 20, 1991. A copy of the variance letter is included in Appendix G of this application.

H. The following procedures must be followed in order to request a variance from secondary containment.

1. The administrative authority must be notified in writing by the owner or operator that he intends to conduct and submit a demonstration for a variance from secondary containment as allowed in LAC 33:V.1907.G according to the following schedule:

   a. for existing tank systems, at least 24 months prior to the date that secondary containment must be provided in accordance with LAC 33:V.1907.A;

   b. for new tank systems, at least 30 days prior to entering into a contract for installation.

2. As part of the notification, the owner or operator must also submit to the administrative authority a description of the steps necessary to conduct the demonstration and a timetable for completing each of the steps. The demonstration must address each of the factors listed in LAC 33:V.1907.G.1 or 2.

3. The demonstration for a variance must be completed within 180 days after notifying the administrative authority of an intent to conduct the demonstration; and

4. If a variance is granted under this Paragraph, the administrative authority will require the permittee to construct and operate the tank system in the manner that was demonstrated to meet the requirements for the variance.

Response: Cytec acknowledges the above citation. Cytec followed the procedure specified in this section in obtaining the pipeline network variance from the requirements of LAC 33:V.1907.F granted in LDEQ's letter of November 20, 1991. Cytec has constructed and operated the tank systems in the manner that was demonstrated to meet the requirements for the variance.

I. All tank systems, until such time as secondary containment that meets the requirements of this Section is provided, must comply with the following.

1. For non-enterable underground tanks, a leak test that meets the requirements of LAC 33:V.1903.A or other tank integrity method, as approved or required by the administrative authority, must be conducted at least annually.

2. For other than non-enterable underground tanks, the owner or operator must either:

   a. conduct a leak test as in LAC 33:V.1907.I.1 or 2;

   b. develop a schedule and procedure for an assessment of the overall condition of the tank system by an independent, qualified registered professional engineer. The schedule and procedure must be adequate to detect obvious cracks, leaks and corrosion or erosion that may lead to cracks and leaks. The owner or operator must remove the stored waste from the tank, if necessary, to allow the condition of all internal tank surfaces to be assessed. The frequency of these assessments must be based on the material of construction of the tank and its ancillary equipment, the age of the system, the type of corrosion or erosion protection used, the rate of corrosion or erosion observed during the previous inspection and the characteristics of the waste being stored or treated.

3. For ancillary equipment, a leak test or other integrity assessment as approved by the administrative authority must be conducted at least annually.

4. The owner or operator must maintain on file at the facility a record of the results of the assessments conducted in accordance with LAC 33:V.1907.I.1—3.

5. If a tank system or component is found to be leaking or unfit for use as a result of the leak test or assessment in LAC 33:V.1907.I.1—3, the owner or operator must comply with the requirements of LAC 33:V.1913.

   Response: Cytec acknowledges the above citation. Cytec Fortier does not have any non-enterable underground tanks and all other Fortier hazardous waste tanks are provided with secondary containment meeting the requirements of LAC 33:V.1907.A-H. A leak test or other integrity assessment is performed at least annually for all Fortier hazardous waste tank system ancillary equipment components without secondary containment. The results of this annual assessment are maintained on file at the facility. Cytec complies with the requirements of LAC 33:V.1913 for any tank system component found to be leaking or unfit for service as a result of the annual assessment.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:651 (November 1987), LR 14:790 (November 1988), LR 16:614 (July 1990).

§1909. General Operating Requirements

A. Hazardous wastes or treatment reagents must not be placed in a tank system if they could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.

   Response: Cytec acknowledges the above citation. Cytec will not place hazardous waste or treatment reagents into a tank system if it could cause the tank, its ancillary equipment, or containment system to rupture, leak, corrode, or otherwise fail.

B. The owner or operator must use appropriate controls and practices to prevent spills and overflows from

tank or containment systems. These include at a minimum:

1. spill prevention controls (e.g., check valves, dry disconnect couplings);

2. overfill prevention controls (e.g., level sensing devices, high level alarms, automatic feed cutoff or bypass to a standby tank); and

3. maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation.

Response: Cytec acknowledges the above citation. A primary spill control method employed at Fortier is the use of permanent hard-piped connections for all normal hazardous waste transfer operations. Check valves, automatic fail-closed valves, and block valves are also used to control the flow of waste streams and prevent spills. The use of permanent waste transfer connections eliminates the potential for spills as hoses or other temporary transfer means are connected and disconnected. If emergency or other abnormal operating conditions require the use of hoses or temporary transfer methods, procedures and equipment such as check valves and flanged connections are used to minimize the potential for spills.

All Fortier hazardous waste tanks which are not designed to operate full of liquid are provided with at least one level sensing device and one high level alarm. The level sensing devices provide plant operators, who are present 24 hours per day, with continuous indication of tank liquid levels. Written plant operating procedures require operators to check the liquid level of a receiving tank before initiating the transfer of waste to a tank. The tank high level alarms furnished automatically provide operators with an audible warning that a tank level is approaching capacity. Plant operating procedures require operators to stop the flow of liquid to the tank or take other appropriate actions to prevent overfilling of the tank in the event of a tank high level alarm indication. Some tanks are also provided with automatic flow cut off devices to prevent overfilling.

All Fortier hazardous waste tanks are provided with a roof or other form of covering and are thus not subject to overtopping by wave or wind action or by precipitation.

C. The owner or operator must comply with the requirements of LAC 33:V.1913 if a leak or spill occurs in the tank system.

Response: Cytec acknowledges the above citation and complies with the requirements of LAC 33:V.1913 if a leak or spill occurs in a hazardous waste tank system.

D. Owners or operators must provide documentation, maintained on-site, that tanks subject to the accumulation time exclusion of LAC 33:V.1109.E have been emptied and a demonstration made that the tanks have been cleaned of all residues and/or sludges at least once in each 90-day period.

1. For tanks used to store similar wastes (compatible), cleaning/rinsing or removing hazardous materials and sludges to a level which will allow visible inspection of all tank interior surfaces is required.

2. For tanks that may be used to store dissimilar (incompatible) wastes, cleaning/rinsing by method(s) necessary to remove all hazardous materials to a level which precludes any incompatibility reactions and is sufficient to allow visible inspection of all tank interior surfaces is required.

   Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:651 (November 1987), LR 16:614 (July 1990).

§1911. Inspections

A. The owner or operator must develop and follow a schedule and procedure for inspecting overfill controls.

   Response: Cytec acknowledges the above citation. Fortier personnel are required to inspect all hazardous waste tanks and their associated ancillary equipment on a regular basis. Overfill control and monitoring equipment, including tank level indicators, are checked daily. Information is recorded several times each shift as part of the operating logs. A copy of the Inspection Plan is included in Appendix P.

B. The owner or operator must inspect at least once each operating day:

   1. aboveground portions of the tank system, if any, to detect corrosion or releases of waste;

   2. data gathered from monitoring and leak detection equipment (e.g., pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design; and

   3. the construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system (e.g., dikes) to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation).

   Response: Cytec acknowledges the above citation. Aboveground portions of all hazardous waste tank systems are inspected daily to detect corrosion or releases of waste. Data gathered from tank system monitoring and leak detection equipment are collected at least once each operating day to ensure that the tank system is being operated in accordance with its design specifications. The tank system construction materials and the areas immediately surrounding the externally accessible portion of the tank systems, including the secondary containment systems, are also inspected daily to detect erosion or signs of releases of hazardous waste.

C. The owner or operator must inspect cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly:

   1. the proper operation of the cathodic protection system must be confirmed within six months after

initial installation and annually thereafter; and

2. all sources of impressed current must be inspected and/or tested, as appropriate, at least bimonthly (i.e., every other month).

Response: Cytec acknowledges the above citation. Tank system design and operating conditions are such that none of the Cytec Fortier hazardous waste tank systems requires cathodic protection or impressed current systems to provide corrosion protection. Requirements for cathodic protection and impressed current system inspection and testing are therefore not applicable.

D. The owner or operator must document in the operating record of the facility an inspection of those items in LAC 33:V.1911.A-C.

Response: Cytec acknowledges the above citation. Facility operating records document compliance with the waste system inspection requirements of LAC 33:V.1911.A and B. The requirements for cathodic protection and impressed current system inspection and testing in LAC 33:V.1911.C are not applicable since Cytec Fortier has no cathodic protection or impressed current systems.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:651 (November 1987), LR 14:790 (November 1988).

§1913. Response to Leaks or Spills and Disposition of Leaking or Unfit-for-Use Tank Systems

A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, must be removed from service immediately, and the owner or operator must satisfy the following requirements.

A. Cessation of Use; Prevent Flow or Addition of Wastes. The owner or operator must immediately stop the flow of hazardous waste into the tank system or secondary containment system and inspect the system to determine the cause of the release.

Response: Cytec acknowledges the above citation. Cytec will immediately stop the flow of hazardous waste into any hazardous waste tank system or secondary containment system from which there has been a leak or spill, or which is otherwise determined to be unfit for use, and will inspect the system to determine the cause of the release.

B. Removal of Waste from Tank System or Secondary Containment System

1. If the release was from the tank system, the owner/operator must, within 24 hours after detection of the leak or, if the owner/operator demonstrates that it is not possible, at the earliest practicable time, remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed.

2. If the material released was to a secondary containment system all released material must be

removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.

Response: Cytec acknowledges the above citation. In the event of a spill or release from a hazardous waste tank system, Cytec will, within 24 hours after detection of the leak or, if that it is not possible, at the earliest practicable time, remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed. If the material released was to a secondary containment system all released material will be removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.

C. Containment of Visible Releases to the Environment. The owner/operator must immediately conduct a visual inspection of the release and, based upon that inspection:

1. prevent further migration of the leak or spill to soils or surface water; and

2. remove, and properly dispose of, any visible contamination of the soil or surface water.

Response: Cytec acknowledges the above citation. In the event of a spill or release from a hazardous waste tank system Cytec will immediately conduct a visual inspection of the release and, based upon that inspection prevent further migration of the leak or spill to soils or surface water and remove, and properly dispose of, any visible contamination of the soil or surface water.

D. Notifications, Reports (LAC 33:V.105.A)

1. Any release to the environment, except as provided in LAC 33:V.1913.D.2, must be reported to the administrative authority within 24 hours of its detection. If the release has been reported pursuant to LAC 33:V.105.J, that report will satisfy this requirement.

2. A leak or spill of hazardous waste is exempted from this Paragraph if it is:

   a. less than or equal to a quantity of one pound, and

   b. immediately contained and cleaned-up.

3. Within 30 days of detection of a release to the environment, a report containing the following information must be submitted to the administrative authority:

   a. likely route of migration of the release;

   b. characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate);

   c. results of any monitoring or sampling conducted in connection with the release (if available). If sampling or monitoring data relating to the release are not available within 30 days, these data must be submitted to the administrative authority as soon as they become available;

   d. proximity to downgradient drinking water, surface water, and population areas; and

e. description of response actions taken or planned.

Response: Cytec acknowledges the above citation. Any release of hazardous waste to the environment, except as provided in LAC 33:V.1913.D.2, will be reported to the administrative authority within 24 hours of its detection unless it is less than or equal to a quantity of one pound and is immediately contained and cleaned-up.

Within 30 days of detection of a release to the environment, Cytec will submit to the administrative authority a report containing the following information:
a. likely route of migration of the release;
b. characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate);
c. results of any monitoring or sampling conducted in connection with the release (if available). If sampling or monitoring data relating to the release are not available within 30 days, these data will be submitted to the administrative authority as soon as they become available;
d. proximity to downgradient drinking water, surface water, and population areas; and
e. a description of response actions taken or planned.

E. Provision of Secondary Containment, Repair or Closure

1. Unless the owner/operator satisfies the requirements of LAC 33:V.1913.E.2 and 3 the tank system must be closed in accordance with LAC 33:V.1915.

2. If the cause of the release was a spill that has not damaged the integrity of the system, the owner/operator may return the system to service as soon as the released waste is removed and repairs, if necessary, are made.

3. If the cause of the release was a leak from the primary tank system into the secondary containment system, the system must be repaired prior to returning the tank system to service.

4. If the source of the release was a leak to the environment from a component of a tank system without secondary containment, the owner/operator must provide the component of the system from which the leak occurred with secondary containment that satisfies the requirements of LAC 33:V.1907 before it can be returned to service, unless the source of the leak is an aboveground portion of a tank system that can be inspected visually. If the source is an aboveground component that can be inspected visually, the component must be repaired and may be returned to service without secondary containment as long as the requirements of LAC 33:V.1913.F are satisfied. If a component is replaced to comply with the requirements of this Subparagraph, that component must satisfy the requirements for new tank systems or components in LAC 33:V.1905 and 1907. Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection (e.g., the bottom of an inground or onground tank), the entire component must be provided with secondary containment in accordance with LAC 33:V.1907 prior to being returned to use.

Response: Cytec acknowledges the above citation. Unless Cytec satisfies the requirements of LAC 33:V.1913.E.2 and 3 all leaking or unfit for service tank systems or components will be closed in accordance with the requirements of LAC 33:V.1915.

If the cause of the release was a spill that has not damaged the integrity of the system, Cytec may return the system to service as soon as the released waste is removed and repairs, if necessary, are made.

If the cause of the release was a leak from a primary tank system into a secondary containment system, the system will be repaired prior to returning the tank system to service.

If the source of the release was a leak to the environment from a component of a tank system without secondary containment, Cytec will provide the component of the system from which the leak occurred with secondary containment that satisfies the requirements of LAC 33:V.1907 before it is returned to service, unless the source of the leak is an aboveground portion of a tank system that can be inspected visually. If the source is an aboveground component that can be inspected visually, the component may be repaired and may be returned to service without secondary containment when the requirements of LAC 33:V.1913.F are satisfied. If a component is replaced to comply with the requirements of LAC 33:V.1913.E, that component will satisfy the requirements for new tank systems or components in LAC 33:V.1905 and 1907. Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection (e.g., the bottom of an inground or onground tank), the entire component will be provided with secondary containment in accordance with LAC 33:V.1907 prior to being returned to use.

F. Certification of Major Repairs. If the owner/operator has repaired a tank system in accordance with LAC 33:V.1913.E and the repair has been extensive (e.g., installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel), the tank system must not be returned to service unless the owner/operator has obtained a certification by an independent, qualified, registered, professional engineer in accordance with LAC 33:V.513 that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. This certification must be submitted to the administrative authority within seven days after returning the tank system to use.

Note: The administrative authority may, on the basis of any information received that there is or has been a release of hazardous waste or hazardous constituents into the environment, issue an order requiring corrective action or such other response as is deemed necessary to protect human health or the environment.

Response: Cytec acknowledges the above citation. If Cytec has repaired a tank system in accordance with LAC 33:V.1913.E and the repair has been extensive (e.g., installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel), the tank system will not be returned to service unless Cytec has obtained a certification by an independent, qualified, registered, professional engineer in accordance with LAC 33:V.513 that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. This certification will be submitted to the administrative authority within seven days after returning the tank system to use.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 13:651 (November 1987), LR 16:614 (July 1990).

§1915. Closure and Post-closure Care

A. At closure of a tank system, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste, unless LAC 33:V.109.Hazardous Waste.6 applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for tank systems must meet all the requirements specified in LAC 33:V.Chapters 35 and 37.

Response: At closure of a tank system, Cytec will remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste, unless LAC 33:V.109.Hazardous Waste.6 applies. Cytec Fortier's closure plan, closure activities, cost estimates for closure, and financial responsibility for tank systems meets all the requirements specified in LAC 33:V.Chapters 35 and 37. A copy of the Closure Plan is included in Appendix T.

B. If the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in Subsection A of this Section, then the owner or operator must close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills, LAC 33:V.2521. In addition, for the purposes of closure, post-closure, and financial responsibility, such a tank system is then considered to be a landfill, and the owner or operator must meet all the requirements for landfills specified in LAC 33:V.Chapters 35 and 37.

Response: Cytec acknowledges the above citation. If Cytec demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in Subsection A of this Section, then Cytec will close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills, LAC 33:V.2521. In addition, for the purposes of closure, post-closure, and financial responsibility, such a tank system will be considered to be a landfill, and Cytec will meet all the requirements for landfills specified in LAC 33:V.Chapters 35 and 37.

C. If an owner or operator has a tank system that does not have secondary containment that meets the requirements of LAC 33:V.1907.B and F and is not exempt from the secondary containment requirements in accordance with LAC 33:V.1907.G, then:

1. The closure plan for the tank system must include both a plan for complying with LAC 33:V.1915.A of this Section and a contingent plan for complying with LAC 33:V.1915.B of this Section.

2. A contingent post-closure plan for complying with LAC 33:V.1915.B of this Section must be prepared and submitted as part of the permit application.

3. The cost estimates calculated for closure and post-closure care must reflect the costs of complying with the contingent closure plan and the contingent post-closure plan, if those costs are greater than the costs of complying with the closure plan prepared for the expected closure under Subsection A of this Section.

4. Financial assurance must be based on the cost estimates in LAC 33:V.1915.C.3.

5. For the purposes of the contingent closure and post-closure plans, such a tank system is considered to be a landfill, and the contingent plans must meet all of the closure, post-closure, and financial responsibility requirements for landfills under LAC 33:V.Chapters 35 and 37.

   Response: Cytec acknowledges the above citation. Cytec does not have any tank systems or components that are not either provided with secondary containment that meets the requirements of LAC 33:V.1907.B and F or are exempt from the secondary containment requirements in accordance with LAC 33:V.1907.G. The requirements of this section are therefore not applicable to Cytec.

D. Owners or operators of tanks subject to the accumulation exclusion of LAC 33:V.1109.E.1 are exempt from the requirements of LAC 33:V.Chapters 35 and 37, except for LAC 33:V.3507.

   Response: Cytec acknowledges the above citation. Cytec will comply with the requirements of LAC 33:V.3507 for any hazardous waste tanks that are subject to the accumulation exclusion of LAC 33:V.1109.E.1.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 13:651 (November 1987), amended LR 16:614 (July 1990), LR 18:1256 (November 1992).

§1917. Special Requirements for Ignitable or Reactive Wastes

A. Ignitable or reactive waste must not be placed in tank systems, unless:

   1. the waste is treated, rendered, or mixed before or immediately after placement in the tank system so that:

      a. the resulting waste, mixture, or dissolved material no longer meets the definition of ignitable or reactive waste under LAC 33:V.4903.B or D of this Part, and

      b. LAC 33:V.1517.B is complied with; or

   2. the waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or

   3. the tank system is used solely for emergencies.

   Response: Cytec acknowledges the above citation. Cytec will not place ignitable or reactive waste in tank systems unless the waste is treated, rendered, or mixed before or immediately after placement in the tank system so that the resulting waste, mixture, or dissolved material no longer meets the definition of ignitable or reactive waste under LAC 33:V.4903.B or D. Cytec will store or treat ignitable or reactive waste in such a way that it is protected from materials or conditions that may cause the waste to ignite or react. It should be noted that ignitable and reactive wastes handled by Cytec are normally mixed with large quantities of other aqueous wastes

before or during placement in a tank system so that the resulting mixture no longer meets the definition of ignitable or reactive waste. Cytec handles ignitable and reactive wastes in such a manner that the requirements of LAC 33:V.1517.B are complied with.

B. The owner or operator of a facility where ignitable or reactive waste is stored or treated in a tank must comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," (1977 or 1981), as incorporated by reference at LAC 33:V.110.

Response: Cytec acknowledges the above citation. All Cytec hazardous waste tank components exceed by considerable margins the spacing requirements from public ways and adjoining property lines specified in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code".

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 13:651 (November 1987), amended LR 22:819 (September 1996).

§1919. Special Requirements for Incompatible Wastes

A. Incompatible wastes, or incompatible wastes and materials, must not be placed in the same tank system, unless LAC 33:V.1517.B is complied with.

Response: Cytec acknowledges the above citation. The incompatible cyanide bearing waste streams and acidic waste streams are managed in separate, closed systems. Cytec also has the ability to adjust the pH of waste streams. Therefore, Cytec is capable of taking precautions to prevent adverse reactions when mixing incompatible wastes in compliance with LAC 33:V.1517.B.

B. Hazardous waste must not be placed in a tank system that has not been decontaminated and that previously held an incompatible waste or material, unless LAC 33:V.1517.B is complied with.

Response: Cytec acknowledges the above citation. Cytec has the ability to adjust the pH of waste streams and control other mixing parameters to prevent adverse reactions when mixing incompatible wastes in order to maintain compliance with the requirements of LAC 33:V.1517.B.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 13:651 (November 1987)..

LAC 33:V.Chapter 21

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 21. Containers

§2101. Applicability

The regulations in this Chapter apply to owners and operators of all hazardous waste facilities that store containers of hazardous waste, except as specified in LAC 33:V.105.D, or if the container is empty (see LAC 33:V.109).

Response: Cytec acknowledges the above citation. Cytec owns and operates one (1) hazardous waste facility identified as the Container Storage Building to store containers of hazardous waste. This facility is currently being operated as a less than 90 days facility in compliance with LAC 33:V.1109.E. A Class 3 hazardous waste permit modification was submitted on February 27, 1995 requesting that the Container Storage Building be designated as a permitted facility. A public notice was published in The Times Picayune on February 24, 1995 and mailed to persons on the facility's mailing list on March 3, 1995. Evidence of the publication and mailing was provided to LDEQ on March 6, 1995. A public meeting was held on March 23, 1995. LDEQ issued a Notice of Deficiency (NOD) to the Completeness Review on May 15, 1995. Cytec submitted a response to the NOD on June 16, 1995. LDEQ declared the Class 3 hazardous waste permit modification administratively complete on October 30, 1995. A public notice was published in The Advocate and The Times Picayune on November 11, 1995 and proof of publication was submitted to LDEQ on December 5, 1995. A draft hazardous operating permit was issued on August 30, 1996. Cytec submitted comments to the draft hazardous waste operating permit on October 30, 1996. The issue is currently pending a response by LDEQ.

In addition, Cytec may manage hazardous waste containers for a period of less than 90 days in compliance with LAC 33:V.1109.E., but not in such a manner that would require being included in this hazardous waste permit application.

A. Containers not exempted from these regulations shall be considered hazardous and shall be disposed of or treated by an acceptable waste disposal or treatment method.

Response: Cytec acknowledges the above citation.

B. If a hazardous waste is emptied from a container, the residue remaining in the container is not considered a hazardous waste if the container is empty as defined in LAC 33:V.109. In that event, management of the container is exempt from the requirements of this Chapter.

Response: Cytec acknowledges the above citation.

C. Empty containers sent to a reclaimer are considered product, and thus are not subject to these rules and regulations. Residue from the reclaimer's operations must be disposed of in a permitted facility.

Response: Cytec acknowledges the above citation.

D. The storage of hazardous waste prohibited from land disposal must also be in accordance with the requirements of LAC 33:V.2205.

Response: Cytec will comply with the following conditions for storage of hazardous wastes prohibited from land disposal:

The container storage building will be used to store containers of hazardous waste prohibited from land disposal on-site solely for the purpose of accumulating such quantities of hazardous waste as are necessary to facilitate proper disposal. Cytec complies with the referenced regulation, LAC 33:V.2245, by maintaining a Waste Analysis Plan and by providing Land Disposal Restriction Notices with off-site, manifested shipments of land disposal restricted hazardous waste, in accordance with applicable regulations.

Cytec will ensure that each container of hazardous waste prohibited from land disposal is clearly marked with a description of its contents and the date each period of accumulation begins. Cytec documents the quantity of each hazardous waste received into the Container Storage Building from on-site on a log that is maintained as part of the facility operating record. Furthermore, Cytec complies with all the applicable operating record requirements specified in LAC 33:V.1529.

Cytec may store hazardous waste prohibited from land disposal for up to one year, or beyond one year with the approval of the administrative authority, in order to accumulate such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

Cytec may store liquid hazardous wastes containing polychlorinated biphenols (PCBs) at concentrations greater than or equal to 50 ppm in the Container Storage Building. As required, the Container Storage Building meets the requirements of 40 Code of Federal Regulations (CFR) 761.65(b). The liquid hazardous wastes containing polychlorinated biphenols (PCBs) at concentrations greater than or equal to 50 ppm will be removed from storage and treated and disposed within one year of the date when such wastes are first placed into storage.

Cytec will maintain the Container Storage Building in full compliance with all applicable hazardous waste rules pertaining to storage.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 18:1256 (November 1992).

§2103. Condition of Containers

If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the owner or operator must transfer the hazardous waste from this container to a container that is in good condition or manage the waste in some other way that complies with the

requirements of this Chapter.

Response: Containers holding hazardous waste will be maintained in good condition (e.g., no severe rusting, or apparent structural defects). If a container begins to leak, the hazardous waste in the container will either be transferred to a container that is in good condition or else the affected container will be placed inside an overpack drum. Good condition of containers will further be assured via the facility's hazardous waste inspection program.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

§2105. Compatibility of Waste with Containers

The owner or operator must use a container made of or lined with materials which will not react with, or be incompatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

Response: All containers used will be compatible with the hazardous waste to be stored. In general, most waste stored at the facility is compatible with steel containers and/or fiber packaging. Exceptions may be corrosive materials, such as acids or alkalines, which will be stored in polyethylene or other compatible containers. Compatibility of waste with containers is further insured via the facility's hazardous waste inspection program which requires observation and immediate correction for any evidence of container deterioration.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

§2107. Management of Containers

A. A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.

Response: Containers holding hazardous waste will be kept closed during storage, except when it is necessary to add or remove waste.

B. A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

Response: Containers holding hazardous waste will not be opened, handled, or stored in a manner which may rupture the container or cause it to leak. Containers will be inspected for any deterioration problems in compliance with applicable regulations.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and

Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), repromulgated LR 18:1256 (November 1992).

§2109. Inspections

A. At least weekly, the owner or operator must inspect areas where containers are stored, looking for leaking containers and for deterioration of containers and the containment system. Remedial action as described in LAC 33:V.1513 shall be taken.

Response: The Container Storage Building will be inspected at least weekly for leaking containers and for deterioration of containers and the containment system. Any observations requiring remedial action will be addressed as appropriate to ensure compliance with applicable regulations.

B. All containers must be stacked in such a fashion that each container identification label can be read from the access aisle.

Response: All containers will be stacked such that each container identification label can be read from the access aisle.

C. All inspection records must be maintained according to the record keeping requirements of LAC 33:V.1529.

Response: All inspection records will be maintained according to the record keeping requirements of LAC 33:V.1529 and other applicable regulations. A copy of the Inspection Plan is included in Appendix P.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), repromulgated LR 18:1256 (November 1992).

§2111. Containment

A. Container storage areas must have a containment system that is designed and operated in accordance with LAC 33:V.2111.B except as otherwise provided by LAC 33:V.2111.C.

Response: Cytec acknowledges the above citation.

B. A containment system must be designed and operated as follows:

1. a base must underlie the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed;

Response: The base of the Container Storage Building consists of concrete floor, curbing, trenches, and sumps. Semstone high performance coating has been applied to the floor, trenches, and sumps within the building to create an additional barrier to further decrease permeability to prevent waste migration. The vendor

coating specifications and chemical compatibility were reviewed and determined to be suitable for this application.

The base will be maintained in a manner free of cracks, gaps, and sufficiently impervious to contain leaks and spills until the collected material is detected and removed. Base maintenance will be assured through the facility's Inspection Plan as outlined in Appendix P.

2. the base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;

Response: The Container Storage Building base (i.e., floor and trenches) is designed to slope toward liquid collection sumps to facilitate drainage and removal of liquids in the event of a spill or leak. Additionally, palletized storage is planned for all containers, except rolloff bins. This will elevate containers to protect them from contact with any accumulated liquids.

3. the containment system must have sufficient capacity to contain ten percent of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination;

Response: The containment system has more than sufficient capacity to contain 10% of the total volume of containers, or the volume of the largest container, whichever is greater. A table summarizing the applicable container volume test, maximum required container volume under the regulations and existing container volume supplied by the Container Storage Building is included in Appendix II. Containment volumes are provided on a per cell basis so as to prevent the possibility of commingling of incompatible wastes. Calculations documenting the containment volume by cell are also included in Appendix II.

4. run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in LAC 33:V.2111.B.3 to contain any run-on which might enter the system;

Response: The Container Storage Building is a totally enclosed building. Run-on into the containment system is prevented by means of the building's roof, walls and perimeter curbing.

5. spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system; and

Response: Accumulated liquids in the building's sumps and/or trenches will be removed in a timely manner. Additionally, checks for accumulated liquids will be made during the facility inspections as denoted in the Inspection Plan in Appendix P.

6. if the collected material is a hazardous waste, it must be managed as a hazardous waste in

accordance with all applicable requirements.

Response: If any collected material is determined to be a hazardous waste, it will be managed as such in accordance with all applicable regulatory requirements.

C. Storage areas that store containers holding only wastes that do not contain free liquids need not have a containment system defined by LAC 33:V.2111.B, except as provided by LAC 33:V.2111.D or provided that:

1. the storage area is sloped or is otherwise designed and operated to drain and remove liquid resulting from precipitation, or

2. the containers are elevated or are otherwise protected from contact with accumulated liquid.

Response: Cytec acknowledges the above citation. Cytec provides a containment system as required by LAC 33:V.2111.B. for the Container Storage Building.

D. Storage areas that store containers holding the wastes listed below must have a containment system defined by LAC 33:V.2111.B even when these wastes do not contain free liquids: F020, F021, F022, F023, F026, and F027.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 16:220 (March 1990).

§2113. Special Requirements for Ignitable or Reactive Wastes

Containers holding ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility property line. (See LAC 33:V.1517 for additional requirements or LAC 33:V.4321 for additional requirements for interim status facilities.)

Response: The Container Storage Building is located well in excess of 15 meters (50 feet) from the facility property line. The location of the Container Storage Building is depicted on the Hazardous Waste Management System Location Map included in Appendix J, Figure 2.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

§2115. Special Requirements for Incompatible Wastes

A. Incompatible wastes, or incompatible wastes and materials, must not be placed in the same container unless LAC 33:V.1517 or 4321 for interim status facilities is complied with.

Response: Cytec will not place incompatible wastes and/or materials in the same container unless complying with LAC 33:V.1517.

B. Hazardous wastes must not be placed in an unwashed container that previously held an incompatible waste or material.

Response: Cytec will not place hazardous waste in an unwashed container that previously held an incompatible waste or material.

C. A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, other device, or approved management technique.

Response: Cytec will segregate all containers holding hazardous waste incompatible with waste in other containers by means of segregated storage/containment structures to prevent commingling of container contents and/or spills. The Container Storage Building is designed with six (6) segregated storage areas, each equipped with individual containment systems to prevent commingling of incompatible materials.

The cell allocation and dimensions are provided in Appendix II and Appendix JJ. Wastes managed in containers are generated on an intermittent basis. The Container Storage Building has been designed to provide maximum environmental protection while allowing for a variety of storage conditions.

The applicable restrictions on storage compatibility are:

- **Designated flammables must be stored in the designated flammable cell only since the cell has an 8" masonry fire wall on the west side which acts as a barrier between flammable wastes and other wastes. Flammable wastes may not be stored in any other cell location. Examples of waste types which are restricted to the flammable storage location are included in Appendix JJ.**

- **In no instance shall designated incompatibles be stored in the same containment structure. The table provided in Appendix JJ provides examples of incompatible materials.**

D. The owner or operator must place the results of each waste analysis and trial test and any documented information regarding compatibility testing in the operating record of the facility.

Response: Cytec will retain the results of each waste analysis and any documented information regarding compatibility testing in the facility operating record in compliance with applicable regulations.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 18:1256 (November 1992).

§2117. Closure

At closure, all hazardous waste and hazardous waste residues must be removed from the containment system. Remaining containers, liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues must be decontaminated or removed. At closure, as throughout the operating period, unless the owner or operator can demonstrate in accordance with LAC 33:V.109.Hazardous Waste.6 that the solid waste removed from the containment system is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of LAC 33:V.Chapters 9—43.

> **Response: Cytec acknowledges the above citation. Cytec will remove all hazardous waste and hazardous waste residues from the containment system at the time of closure. Contaminated containers, liners, bases, and soil will either be decontaminated or removed, as appropriate. A copy of the Closure Plan is included in Appendix T.**

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 18:1256 (November 1992).

LAC 33:V.Chapter 22

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 22. Prohibitions on Land Disposal

Subchapter A. Land Disposal Restrictions

§2201. Purpose, Scope, and Applicability

A. This Chapter is adopted pursuant to the authority of Act 1984, No. 803, as amended by Act 1986, No. 422, and Act 1987, No. 852, cited as Louisiana Revised Statutes Title 30, Section 2193.

Response: Cytec acknowledges the above citation.

B. The purpose of these regulations is to provide for prohibitions and incentives designed to encourage alternative methods of hazardous waste disposal, destruction, and reduction; to lessen the possibility of hazardous waste releases from existing land disposal sites; and to provide for the eventual prohibition of land disposal of hazardous waste.

Response: Cytec acknowledges the above citation.

C. This Chapter identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be land disposed.

Response: Cytec acknowledges the above citation.

D. The requirements of this Chapter apply to all persons who generate or transport hazardous waste and to owners and operators of hazardous waste treatment, storage, and disposal facilities.

Response: Cytec acknowledges the above citation.

E. These regulations shall be construed and implemented to support the use of the following waste management practices in the following order of priority:

1. reduction of hazardous waste generated;
2. recycling of hazardous waste;
3. treatment of hazardous waste; and
4. land disposal of residuals from hazardous waste recycling and treatment.

Response: Cytec acknowledges the above citation.

F. The policies and determinations that the administrative authority makes pursuant to these regulations shall assert and reflect the primacy of waste reduction.

Response: Cytec acknowledges the above citation.

G. Prohibited wastes may continue to be land disposed as follows:

1. where persons have been granted an extension to the effective date of a prohibition under LAC

33:V.Chapter 22.Subchapter A or in accordance with LAC 33:V.2239 with respect to those wastes covered by the extension;

2. where persons have been granted an exemption from a prohibition in accordance with a petition under LAC 33:V.2241 with respect to those wastes and units covered by the petition;

3. where an extension of the effective date or an exemption from a prohibition has been granted by EPA, and the administrative authority grants an emergency variance to allow continued land disposal. In such a case the land disposal may continue until the administrative authority makes a decision regarding the extension or exemption. Following a decision by the administrative authority, the waste may be land disposed only in accordance with the provisions of the extension or exemption;

4. wastes that are hazardous only because they exhibit a hazardous characteristic, and which are otherwise prohibited from land disposal under this Chapter, are not prohibited from land disposal if the wastes:

   a. are disposed into a nonhazardous or hazardous injection well as defined in LAC 43:XVII.203.C;

   b. do not exhibit any prohibited characteristic of hazardous waste at the point of injection at the well head; and

   c. at the point of generation, the injected wastes include D001 High TOC subcategory wastes or D012-D017 pesticide wastes that are prohibited under LAC 33:V.2269 and those wastes have been treated to meet the treatment standards of LAC 33:V.Chapter 22.Table 2 before injection.

Response: Cytec acknowledges the above citation.

H. The requirements of this Section shall not affect the availability of a waiver under section 121(d)(4) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).

Response: Cytec acknowledges the above citation.

I. The following hazardous wastes are not subject to any provision of this Chapter:

1. waste pesticides that a farmer disposes of in accordance with LAC 33:V.105.D.5;

2. waste identified or listed as hazardous after November 8, 1984, for which EPA has not promulgated land disposal prohibitions or treatment standards;

3. de minimis losses to wastewater treatment systems of commercial chemical product or chemical intermediates that are ignitable (D001), corrosive (D002), or are organic constituents that exhibit the characteristic of toxicity (D012- D043), and that contain underlying hazardous constituents as defined in LAC 33:V.2203 are not considered to be prohibited wastes. De minimis is defined as losses from normal material-handling operation (e.g. spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials); minor leaks of process equipment, storage tanks, containers; leaks from well-maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing;

4. land disposal prohibitions for hazardous characteristic wastes do not apply to laboratory wastes displaying the characteristic of ignitability (D001), corrosivity (D002), or organic toxicity (D012-D043) that are mixed with other plant wastewaters at facilities whose ultimate discharge is subject to regulation under the Clean Water Act (CWA) (including wastewaters at facilities that have eliminated the discharge of wastewater), provided that the annualized flow of laboratory wastewater into the facility's headworks does not exceed one percent, or provided that the laboratory wastes' combined annualized average concentration does not exceed one part per million in the facility's headworks; or

5. universal waste handlers and universal waste transporters (as defined in LAC 33:V.3813) are exempt from LAC 33:V.2205, 2245.A-I, 2246.E, and 2247 for the wastes listed below. These handlers are subject to regulation under LAC 33:V.Chapter 38, when handling the below listed universal wastes:

   a. batteries as described in LAC 33:V.3803;

   b. pesticides as described in LAC 33:V.3805; and

   c. thermostats as described in LAC 33:V.3807.

   Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 16:398 (May 1990), LR 16:1057 (December 1990), LR 17:658 (July 1991), LR 18:723 (July 1992), LR 21:266 (March 1995), LR 22:22 (January 1996), LR 23:568 (May 1997), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:300 (February 1998).

§2203. Definitions Applicable to this Chapter

A. When used in this Chapter the following terms have the meanings given below:
Cone of Influence—that area around the well within which increased injection zone pressures caused by injection into the waste injection well could drive fluids into an underground source of drinking water (USDW).

Confining Zone—a geological formation, group of formations, or part of a formation that is capable of limiting fluid movement above an injection zone. Debris—solid material exceeding a 60-mm particle size that is intended for disposal and that is a manufactured object, or plant or animal matter, or natural geologic material. However, the following materials are not debris: any material for which a specific treatment standard is provided in LAC 33:V.Chapter 22.Subchapter A, namely lead acid batteries, cadmium batteries, and radioactive lead solids; process residuals such as smelter slag and residues from the treatment of waste, wastewater, sludges, or air emission residues; and intact containers of hazardous waste that are not ruptured and that retain at least 75 percent of their original volume. A mixture of debris that has not been treated to the standards provided by LAC 33:V.2230 with other material is subject to regulation as debris if the mixture is comprised primarily of debris, by volume, based on visual inspection.

Duly Authorized Representative—an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager or superintendent, or a position of equivalent responsibility (a duly authorized representative may thus be either a named

individual or any individual occupying a named position), designated or named in writing by one of the following:

a. for a corporation, by a responsible corporate officer; for the purposes of this Chapter, "responsible corporate officer" means:

   i. a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or

   ii. the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. for a partnership or sole proprietorship, by a general partner or the proprietor, respectively;

c. for a municipality, state, federal, or other public agency, by either a principal executive officer or ranking elected official. Formation—a body of consolidated or unconsolidated rock characterized by a degree of lithologic homogeneity which is prevailingly, but not necessarily, tabular and is mappable on the earth's surface or traceable in the subsurface. Halogenated Organic Compounds or HOCs—those compounds having a carbon-halogen bond which are listed in LAC 33:V.Chapter 22.Table 5. Hazardous Constituent(s)—those constituents listed in LAC 33:V.3105.Table 1. Hazardous Debris—debris that contains a hazardous waste listed in LAC 33:V.4903 or that exhibits a characteristic of hazardous waste identified in LAC 33:V.4901.

Injection Interval—the part of the injection zone in which the well is screened, or in which the waste is otherwise directly emplaced. Injection Zone—a geological formation, group of formations, or part of a formation receiving fluids through an injection well.

Land Disposal—placement in or on the land, except in a corrective action management unit, and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt-dome formation, salt-bed formation, underground mine or cave, or placement in a concrete vault or bunker intended for disposal purposes.

Mechanical Integrity—an injection well has mechanical integrity if:

a. there is no significant leak in the casing, tubing, or packer; and

b. there is no significant fluid movement into an underground source of drinking water through vertical channels adjacent to the injection well bore.

Nonwastewaters—wastes that do not meet the criteria for wastewaters defined in this Section.

Petitioner—a person, or his or her duly authorized representative, who has legal authority and responsibility for a facility that generates, transports, treats, stores, or disposes of any hazardous waste, and who submits a written request to the administrative authority for an exemption, extension, or variance to allow the land disposal of an otherwise prohibited waste.

Polychlorinated Biphenyls or PCBs—any chemical substance that is limited to the biphenyl molecule that has been chlorinated to varying degrees, or any combination of substances which contains such

substance.

Transmissive Fault or Fracture—a fault or fracture that has sufficient permeability and vertical extent to allow fluids to move between formations.

Treatment—any method, technique, or process, including incineration, occurring at permitted facilities or facilities operating under interim status that changes the physical, chemical, or biological character or composition of any hazardous waste such that the waste becomes nonhazardous, significantly less hazardous, or more suitable for land disposal because of removal or substantial reduction of undesirable properties, such as toxicity, mobility, persistence, reactivity, bioaccumulation, flammability, or corrosivity. Treatment does not include any of the following if one or more of the following is the only method used:

a. solidification of hazardous waste by the addition of absorbent material which produces a change only in the physical character of the waste without a corresponding change in the chemical character of the waste;

b. treatment occurring directly in or on the land, such as land treatment, except that treatment may include in situ treatment necessary for site remediation;

c. dilution of hazardous waste by the addition of nonhazardous material; and/or

d. evaporation in a surface impoundment.

Underground Source of Drinking Water or USDW—an aquifer or its portion:

a. which supplies any public water system; or

b. which contains a sufficient quantity of groundwater to supply a public water system, and

   i. currently supplies drinking water for human consumption, or

   ii. contains fewer that 10,000 mg/1 total dissolved solids; and

c. which is not an aquifer exempted by the Department of Natural Resources, Office of Conservation.

Underlying Hazardous Constituent—any regulated constituent listed in LAC 33:V.Chapter 22.Table 7, Universal Treatment Standards, except vanadium and zinc, which can reasonably be expected to be present at the point of generation of the hazardous waste, at a concentration above the constituent-specific UTS treatment standard.

Wastewaters—wastes that contain less than one percent by weight total organic carbon (TOC) and less than one percent by weight total suspended solids (TSS), with the following exceptions:

a. F001, F002, F003, F004, and F005 wastewaters are solvent-water mixtures that contain less than one percent by weight TOC or less than one percent by weight total F001, F002, F003, F004, or F005 solvent constituents listed in LAC 33:V.Chapter 22.Table 2.

b. K011, K013, and K014 wastewaters that contain less than five percent by weight TOC and less than one percent by weight TSS, as generated.

c. K103 and K104 wastewaters contain less than four percent by weight TOC and less than one percent by weight TSS.

B. All other terms are used as defined in Chapter 1 of these regulations.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 16:221 (March 1990), LR 16:1057 (December 1990), LR 17:658 (July 1991), LR 21:266 (March 1995), LR 22:22 (January 1996).

§2205. Storage of Prohibited Wastes

A. The storage of hazardous wastes prohibited from land disposal is prohibited except under the following conditions.

1. A generator may store such wastes in tanks, containers, or containment buildings on-site solely for the purpose of accumulating such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal and the generator complies with the requirements of LAC 33:V.1109.E and 2245. (A generator who exists on the effective date of a regulation under this Chapter and who must store hazardous wastes for longer than 90 days becomes an owner/operator of a storage facility and must obtain a final permit. Such a facility may qualify for interim status upon compliance with the regulations governing interim status under Chapter 43 of this Part.) A small quantity generator as defined in LAC 33:V.Chapter 39 may accumulate hazardous waste in accordance with LAC 33:V.3913.

   Response: Cytec acknowledges the above citation. Cytec manages hazardous wastes prohibited from land disposal in tanks and/or containers on-site solely for the purpose of accumulating such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal and Cytec complies with the applicable regulatory requirements.

2. An owner/operator of a hazardous waste treatment, storage, or disposal facility may store such wastes in tanks, containers, or containment buildings solely for the purpose of accumulating such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal provided that each container or tank is clearly marked with a description of its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, or such information for each tank is recorded and maintained in the operating record at that facility. Regardless of whether the tank itself is marked, an owner/operator must comply with the operating record requirements specified in LAC 33:V.1529 or 4357.

   Response: Cytec acknowledges the above citation. Cytec manages hazardous wastes prohibited from land disposal in tanks and/or containers solely for the purpose of accumulating such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal. Cytec will clearly mark each container and/or tank with a description of its contents and the date each period of accumulation begins, or such information for each tank will be recorded and maintained in the operating record at that facility. Cytec does not receive any

hazardous waste from off-site. Therefore, the requirement to document the quantity of each hazardous waste received is not applicable.

3. A transporter may store manifested shipments of such wastes at a transfer facility for 10 days or less with the approval of the administrative authority in accordance with LAC 33:V.1305.

   Response: The requirements of LAC 33:V.2205.A.3. do not apply to Cytec, because Cytec is not a transporter of hazardous waste .

B. An owner/operator of a treatment, storage, or disposal facility may store such wastes for up to one year provided that such storage is solely for the purpose of accumulating such quantities of hazardous wastes as are necessary to facilitate proper recovery, treatment, or disposal. In response to a request from the administrative authority, the owner/operator must prove that storage for less than one year is solely for the purpose of accumulating such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

   Response: Cytec acknowledges the above citation.

C. An owner/operator of a treatment, storage, or disposal facility may store such wastes beyond one year with the approval of the administrative authority; however, the owner/operator bears the burden of proving that such storage is solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

   Response: Cytec acknowledges the above citation.

D. The prohibition in LAC 33:V.2205.A does not apply to hazardous wastes which are the subject of an approved exemption under LAC 33:V.2241 or 2271 or an approved case-by-case extension of time under LAC 33:V.2239 or a national capacity variance.

   Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.2205.A do not apply to hazardous wastes which are the subject of Cytec's approved exemption under LAC 33:V.2271.

E. The prohibition in Subsection A of this Section does not apply to hazardous wastes that:

   1. meet the treatment standards specified under LAC 33:V.2225, 2227, or 2229; or

   2. have been granted a variance under LAC 33:V.2231; or

   3. if treatment standards have not been specified, are in compliance with the applicable prohibitions specified in LAC 33:V.2213.

   Response: Cytec acknowledges the above citation.

F. Liquid hazardous wastes containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to 50 ppm must be stored at a facility that meets the requirements of 40 CFR 761.65(b) and must be removed from storage and treated or disposed as required by this Chapter within one year of the date when such wastes are first placed into storage. The provisions of Subsection C of this Section do not apply to PCB wastes prohibited under LAC 33:V.2213.

Response: Cytec acknowledges the above citation.

G. Notwithstanding the above, any storage facility must be in full compliance with all applicable hazardous waste rules pertaining to storage.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 16:220 (March 1990), LR 17:658 (July 1991), LR 21:266 (March 1995), LR 22:22 (January 1996).

§2207. Dilution Prohibited as a Substitute for Treatment

A. Except as provided in Subsection B of this Section, no generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility shall in any way dilute a prohibited waste or the residual from treatment of a prohibited waste as a substitute for adequate treatment to achieve compliance with this Chapter, to circumvent the effective date of or otherwise avoid a prohibition listed in Subchapter A of this Chapter, or to circumvent a land disposal prohibition imposed by law.

Response: Cytec acknowledges the above citation.

B. Dilution of wastes that are hazardous only because they exhibit a characteristic in a treatment system that treats wastes subsequently discharged to a water of the United States pursuant to a permit issued under section 402 of the Clean Water Act (CWA) or that treats wastes for purposes of pretreatment requirements under section 307 of the CWA is not impermissible dilution for purposes of this Section unless a method has been specified as the treatment standard in LAC 33:V.2227, or unless the waste is a D003 reactive cyanide wastewater or nonwastewater.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 16:1057 (December 1990), LR 21:266 (March 1995), LR 22:22 (January 1996).

§2209. Waste-Specific Prohibitions—Solvent Wastes

A. The following prohibited spent solvents are thereby deemed to pose the greatest risk to the public when disposed of on land. The spent solvent wastes specified in LAC 33:V.Chapter 49 as Hazardous Waste Numbers F001, F002, F003, F004, and F005 are prohibited from land disposal, (except in an injection well) unless one or more of the following conditions apply:

1. the solvent waste is generated from any response action taken under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) or any corrective action taken under the Resource Conservation and Recovery Act (RCRA), except where the waste is contaminated soil or debris;

2. the initial generator's solvent waste is a solvent-water mixture, solvent-containing sludge or solid, or solvent-contaminated soil (non-CERCLA or RCRA corrective action) containing less than one

percent total F001-F005 solvent constituents listed in LAC 33:V.Chapter 22.Table 2; or

3. the solvent waste is a residue from treating a waste described in LAC 33:V.2209.A.1 or 2; or the solvent waste is a residue from treating a waste not described in LAC 33:V.2209.A.1 or A.2, provided such residue belongs to a different treatability group than the waste as initially generated, and wastes belonging to such a treatability group are described in LAC 33:V.2209.A.2.

Response: Cytec acknowledges the above citation.

B. Effective November 8, 1990, the F001-F005 solvent wastes which are contaminated soil and debris resulting from a response action taken under section 104 or 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) or a corrective action required under Subtitle C of the Resource Conservation and Recovery Act (RCRA) and the residues from treating these wastes are prohibited from land disposal. Between the effective date of these regulations and November 8, 1990, these wastes may be disposed only with the approval of the administrative authority and may be disposed of in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in LAC 33:V.2239.I.2.

Response: Cytec acknowledges the above citation.

C. The requirements of LAC 33:V.2209.A and B do not apply if:

1. an exemption from a prohibition has been granted pursuant to a petition under LAC 33:V.2241 or 2271 with respect to those wastes and units covered by the petition;

2. an extension of the effective date of a prohibition has been granted pursuant to LAC 33:V.2239 with respect to those wastes covered by the extension; or

3. the wastes meet the applicable treatment standards specified in LAC 33:V.Chapter 22.Subchapter A or, where treatment standards are not specified, the wastes are in compliance with the applicable prohibition set forth in this Chapter.

Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.2209.A and B do not apply to Cytec, because Cytec has been granted an exemption from a prohibition pursuant to a petition under LAC 33:V.2271 with respect to those wastes and units covered by the petition.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 17:658 (July 1991), LR 22:22 (January 1996).

§2211. Waste-Specific Prohibitions—Dioxin-Containing Wastes

A. The following wastes containing dioxin are deemed to pose the greatest risk to the public when disposed of on land. Therefore, the dioxin-containing wastes specified in LAC 33:V.Chapter 49 as Hazardous Waste Numbers F020, F021, F022, F023, F026, F027, and F028 are prohibited from land disposal.

Response: Cytec acknowledges the above citation.

B. The requirements of Subsection A of this Section do not apply if:

1. the wastes are treated to meet the standard of LAC 33:V.Chapter 22.Subchapter A; or

2. the wastes are disposed of at a facility that has been granted an exemption under LAC 33:V.2241 or 2271 with respect to those wastes covered by the exemption; or

3. an extension of time has been granted under LAC 33:V.2239.

Response: Cytec acknowledges the above citation.

C. Between the effective date of these regulations and November 8, 1990, wastes which are contaminated soil or debris resulting from a response action taken under section 104 or 106 of CERCLA or a corrective action taken under subtitle C of RCRA may be land disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in LAC 33:V.2239.A.1 and 2 and all other applicable requirements of LAC 33:V.Chapter 15 or Chapter 43.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 22:22 (January 1996).

§2213. Waste-Specific Prohibitions - California List Wastes

A. The following wastes are deemed to pose the greatest risk to the public when disposed of on land. The following hazardous wastes are prohibited from land disposal except in injection wells under the provisions of LAC 33:V.2261:

1. liquid hazardous wastes having a pH less than or equal to 2.0;

2. liquid hazardous wastes containing PCBs at concentrations greater than or equal to 50 ppm;

3. liquid hazardous wastes that are primarily water and contain halogenated organic compounds (HOCs) in total concentrations greater than or equal to 1,000 mg/l and less than 10,000 mg/l HOCs; and

4. liquid hazardous wastes, including free liquids associated with any solid or sludge, containing the following metals or compounds of these metals at concentrations greater than or equal to the concentration specified below:

a. nickel, 134 mg/l;

b. thallium, 130 mg/l.

Response: Cytec acknowledges the above citation.

B. The requirements of Subsection A of this Section do not apply until:

1. July 8, 1989, where the wastes are contaminated soil or debris not resulting from a response action taken under Section 104 or 106 of the CERCLA or a corrective action taken under LAC

33:V.Subpart 1. Until July 8, 1989, these wastes may be disposed in a landfill or surface impoundment with the approval of the administrative authority only if such disposal is in compliance with the requirements specified in LAC 33:V.2239.I.2.

2. November 8, 1990, where the wastes are contaminated soil or debris resulting from a response action taken under Section 104 or 106 of CERCLA or a corrective action taken under Subtitle C of RCRA. Until November 8, 1990, these wastes may be disposed of in a landfill or surface impoundment with the approval of the administrative authority only if such unit is in compliance with the requirements specified in LAC 33:V.2239.I.2.

Response: Cytec acknowledges the above citation.

C. The following hazardous wastes are prohibited from land disposal (subject to any regulations that may be promulgated with respect to disposal in injection wells):

1. liquid hazardous wastes that contain HOCs in total concentrations greater than or equal to 1,000 mg/l and are not prohibited under LAC 33:V.2213.A.3; and

2. nonliquid hazardous wastes containing HOCs in total concentrations greater than or equal to 1,000 mg/kg and are not wastes described in LAC 33:V.2213.B.

Response: Cytec acknowledges the above citation.

D. The requirements of LAC 33:V.2213.A-C do not apply if:

1. an exemption from a prohibition has been granted pursuant to a petition under LAC 33:V.2241 or 2271 with respect to those wastes and units covered by the petition (except for liquid hazardous wastes containing polychlorinated biphenyls at concentrations greater than or equal to 500 ppm, which are not eligible for such exemption);

2. an extension of the effective date of a prohibition has been granted pursuant to LAC 33:V.2239 with respect to those wastes covered by the extension; or

3. the wastes meet the applicable treatment standards specified in LAC 33:V.Chapter 22.Subchapter A or, where treatment standards are not specified, the wastes are in compliance with the applicable prohibitions set forth in this Chapter.

Response: Cytec acknowledges the above citation.

E. The prohibitions and effective dates specified in LAC 33:V.2213.A-C do not apply where the waste is subject to a prohibition and effective date under LAC 33:V.Chapter 22.Subchapter A for a specified HOC (such as a hazardous waste chlorinated solvent, see e.g., LAC 33:V.2209).

Response: Cytec acknowledges the above citation.

F. To determine whether or not a waste is a liquid under Subsections A and C of this Section, the following test must be used: Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication Number SW-846, as incorporated by reference at LAC 33:V.110.

Response: Cytec acknowledges the above citation.

G. Except as otherwise provided in this Subsection, the waste analysis, recordkeeping, and notice requirements of LAC 33:V.2245 and 2247 are applicable to wastes prohibited under this Chapter.

1. The initial generator of a liquid hazardous waste must test his or her waste (not an extract or filtrate) in accordance with the procedures specified in LAC 33:V.4903 or use knowledge of the waste to determine if the waste has a pH less than or equal to 2.0. If the liquid waste has a pH less than or equal to 2.0, it is prohibited from land disposal, and all requirements of LAC 33:V.Chapter 22 are applicable, except as otherwise specified in this Section.

   Response: Cytec acknowledges the above citation. Cytec will test the waste (not an extract or filtrate), or use knowledge of the waste, to determine whether the waste has a pH less than or equal to 2.0.

2. The initial generator of either a liquid hazardous waste containing PCBs or a liquid or nonliquid hazardous waste containing HOCs must test his or her waste (not an extract or filtrate), or use knowledge of the waste, to determine whether the concentration levels in the waste equal or exceed the prohibition levels specified in LAC 33:V.2213. If the concentration of PCBs or HOCs in the waste is greater than or equal to the prohibition levels specified in LAC 33:V.2213 the waste is prohibited from land disposal, and all requirements of this Chapter are applicable, except as otherwise specified.

   Response: Cytec acknowledges the above citation. Cytec will test the waste (not an extract or filtrate), or use knowledge of the waste, to determine whether the concentration levels in the waste equal or exceed the prohibition levels specified in LAC 33:V.2213.

3. If knowledge of the waste is used to comply with this Section, the administrative authority may require the generator to test his or her waste to determine compliance with these regulations.

   Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 16:1057 (December 1990), LR 17:658 (July 1991), LR 22:22 (January 1996), LR 22:819 (September 1996).

§2215. Waste-Specific Prohibitions—First Third Wastes

A. The following wastes are subject to the regulations of this Chapter:
F006, F007, F008, F009, K001, K004, K008, K011, K013, K014, K015, K016, K017, K018, K020, K021, K022, K024, K030, K031, K035, K036, K037, K044, K045, K046, K047, K048, K049, K050, K051, K052, K060, K061, K062, K069, K071, K073, K083, K084, K085, K086, K087, K099, K101, K102, K103, K104, K106, P001, P004, P005, P010, P011, P012, P015, P016, P018, P020, P030, P036, P037, P039, P041, P048, P050, P058, P059, P063, P068, P069, P070, P071, P081, P082, P084, P087, P089, P092, P094, P097, P102, P105, P108, P110, P115, P120, P122, P123, U007, U009, U010, U012, U016, U018, U019, U022, U029, U031, U036, U037, U041, U043, U044, U046, U050, U051, U053, U061, U063, U064, U066, U067, U074, U077, U078, U086, U089, U103, U105, U108, U115, U122, U124, U129, U130, U133, U134, U137, U151, U154, U155, U157, U158, U159, U171, U177, U180, U185, U188, U192, U200, U209, U210, U211, U219, U220, U221, U223, U226, U227, U228, U237, U238, U248, and U249.

Response: Cytec acknowledges the above citation.

B. Except in injection wells the following wastes are prohibited from land disposal: F006 (nonwastewaters), K001, K004, K008 (nonwastewaters), K016, K018, K019, K020, K021, K022 (nonwastewaters), K024, K025, K030, K036 (nonwastewaters), K037, K044, K045, nonexplosive K046 (nonwastewaters), K047, K060 (nonwastewaters), K061 (nonwastewaters containing less than 15 percent zinc), K062, non-CaSO K069 (nonwastewaters), K086 (solvent washes), K087, K099, 4 K100 , K101 (wastewaters), K101 (nonwastewaters, low arsenic subcategory-less than one percent total arsenic), K102 (wastewaters), K102 (nonwastewaters, low arsenic subcategory-less than one percent total arsenic), K103, and K104.

Response: Cytec acknowledges the above citation.

C. Effective August 8, 1988, and continuing until August 7, 1990, K061 wastes containing 15 percent zinc or greater are prohibited from land disposal in accordance with the treatment standards specified in LAC 33:V.2225 applicable to K061 wastes that contain less than 15 percent zinc.

Response: Cytec acknowledges the above citation.

D. Effective January 1, 1991, the waste specified in LAC 33:V.Chapter 49 as EPA Hazardous Waste Number K071 is prohibited from land disposal.

Response: Cytec acknowledges the above citation.

E. Effective August 8, 1990, the wastes specified in this Chapter having a treatment standard based on incineration and that are contaminated soil and debris are prohibited from land disposal.

Response: Cytec acknowledges the above citation.

F. Between November 8, 1988, and August 8, 1990, wastes included in LAC 33:V.2215. D and E may be disposed of in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in LAC 33:V.2239.I.

Response: Cytec acknowledges the above citation.

G. The requirements of LAC 33:V.2215.B-F do not apply if:

1. the wastes meet the applicable standards specified in LAC 33:V.Chapter 22.Subchapter A;

2. persons have been granted an exemption from a prohibition in accordance with a petition under LAC 33:V.2239, with respect to those wastes and units covered by the petition; or

3. persons have been granted an extension to the effective date of a prohibition in accordance with LAC 33:V.2239, with respect to those wastes covered by the extension.

Response: Cytec acknowledges the above citation.

H. Between August 8, 1988, and May 8, 1990, and between January 1, 1991, and June 8, 1992, the wastes specified in LAC 33:V.2215.A for which treatment standards under LAC 33:V.Chapter 22.Subchapter A are not applicable, including those wastes that are subject to prohibitions under LAC 33:V.2213, but not including wastes subject to a treatment standard under LAC 33:V.2227, are

prohibited from disposal in a landfill or surface impoundment unless the wastes are the subject of a valid demonstration and certification in accordance with LAC 33:V.2235.

Response: Cytec acknowledges the above citation.

I. To determine whether a hazardous waste listed in LAC 33:V.2215.A exceeds the applicable treatment standards specified in LAC 33:V.2225 and LAC 33:V.2229, the initial generator must test a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable LAC 33:V.Chapter 22.Table 2 levels, the waste is prohibited from land disposal and all requirements of this Chapter are applicable, except as otherwise specified.

Response: Cytec acknowledges the above citation. Cytec will test a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or Cytec may use knowledge of the waste to determine whether a hazardous waste listed in LAC 33:V.2215.A exceeds the applicable treatment standards specified in LAC 33:V.2225 and LAC 33:V.2229.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 16:1057 (December 1990), LR 17:658 (July 1991), LR 22:22 (January 1996).

§2217. Waste-Specific Prohibitions—Second Third Wastes

List of wastes evaluated prior to June 8, 1990 to determine if they are inappropriate for land disposal:

A. Effective January 1, 1991 the following wastes are subject to regulation under this Chapter:

F010, F011, F012, F024, K009, K010, K019, K025, K027, K028, K029, K038, K039, K040, K041, K042, K043, K095, K096, K097, K098, K105, P002, P003, P007, P008, P014, P026, P027, P029, P040, P043, P044, P049, P054, P057, P060, P062, P066, P067, P072, P074, P085, P098, P104, P106, P107, P111, P112, P113, P114, U002, U003, U005, U008, U011, U014, U015, U020, U021, U023, U025, U026, U028, U032, U035, U047, U049, U057, U058, U059, U060, U062, U070, U073, U080, U083, U092, U093, U094, U095, U097, U098, U099, U101, U106, U107, U109, U110, U111, U114, U116, U119, U127, U128, U131, U135, U138, U140, U142, U143, U144, U146, U147, U149, U150, U161, U162, U163, U164, U165, Chapter 22 33:V.1 15 U168, U169, U170, U172, U173, U174, U176, U178, U179, U189, U193, U196, U203, U205, U206, U208, U213, U214, U215, U216, U217, U218, U235, U239, and U244.

Response: Cytec acknowledges the above citation.

B. Effective January 1, 1991, the following wastes specified in LAC 33:V.Chapter 49 as EPA Hazardous Waste Numbers F006-cyanide (nonwastewaters) F007, F008, F009, F010, F011, F012, F024, K005, K007, K009, K010, K011 (nonwastewaters), K013 (nonwastewaters), K014 (nonwastewaters), K023, K027, K028, K029 (nonwastewaters), K036 (wastewaters), K038, K039, K040, K043, K093, K094, K095 (nonwastewaters), K096 (nonwastewaters), K113, K114, K115, K116, P013, P021, P029, P030, P039, P040, P041, P043, P044, P062, P063, P071, P074, P085, P089, P094, P097, P098, P099, P104, P106,

P109, P111, P121, U028, U058, U069, U087, U088, U102, U107, U221, U223, and U235 are prohibited from land disposal unless otherwise specified in this Chapter.

Response: Cytec acknowledges the above citation.

C. Effective June 8, 1991, the wastes specified LAC 33:V.2217 having a treatment standard in LAC 33:V.Chapter 22.Subchapter A based on incineration and which are contaminated soil and debris are prohibited from land disposal.

Response: Cytec acknowledges the above citation.

D. Between January 1, 1991, and June 8, 1991, F010, F024, K009, K010, K023, K027, K028, K029, K038, K039, K040, K043, K093, K094, K095, K096, K113, K114, K115, K116, P039, P040, P041, P043, P044, P062, P071, P085, P089, P094, P097, P109, U028, U058, U087, U088, U102, U107, U221, U223, and U235, having a treatment standard in Subchapter A of this Chapter based on incineration, and which are contaminated soils and debris, and hazardous waste number F006-Cyanide (nonwastewaters) may be disposed of in a landfill or surface impoundment, regardless of whether such unit is a new, replacement, or lateral expansion unit, only if such unit is in compliance with the technical requirements specified in LAC 33:V.2239.I.2.a-d.

Response: Cytec acknowledges the above citation.

E. The requirements of LAC 33:V.2217.A-C do not apply if:

1. the waste meets the applicable standards specified in LAC 33:V.Chapter 22.Table 2; or

2. persons have been granted an exemption from a prohibition in accordance with a petition under LAC 33:V.2241, with respect to those wastes and units covered by the petition.

Response: Cytec acknowledges the above citation.

F. The requirements of LAC 33:V.2217.B do not apply if persons have been granted an extension to the effective date of a prohibition in accordance with LAC 33:V.2239, with respect to those wastes covered by the extension.

Response: Cytec acknowledges the above citation.

G. Between January 1, 1991, and June 8, 1992, the wastes specified in LAC 33: V.2217.A, for which treatment standards under LAC 33:V.Chapter 22.Subchapter A are not applicable, including California list wastes subject to the statutory prohibitions or codified prohibitions under LAC 33:V.2213, are prohibited from disposal in a landfill or surface impoundment unless the wastes are the subject of a valid demonstration and certification pursuant to LAC 33:V.2235.

Response: Cytec acknowledges the above citation.

H. To determine whether a hazardous waste listed in LAC 33:V.2215.A, 2217.A, and 2219.A exceeds the applicable treatment standards specified in LAC 33:V.Chapter 22.Table 2, the initial generator must test a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable LAC 33:V.Chapter 22.Table 2 levels, the waste is prohibited from land disposal and all requirements of this

Chapter are applicable, except as otherwise specified.

Response: Cytec acknowledges the above citation. Cytec will test a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or Cytec may use knowledge of the waste to determine whether a hazardous waste listed in LAC 33:V.2215.A , 2217.A, and 2219.A exceeds the applicable treatment standards specified in LAC 33:V.Chapter 22.Table 2.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 16:1057 (December 1990), LR 17:658 (July 1991), LR 22:22 (January 1996).

§2219. Waste-Specific Prohibitions—Third Third Wastes

List of wastes evaluated prior to January 1, 1991 to determine if they are inappropriate for land disposal:

A. Effective January 1, 1991, the following wastes are subject to regulation under this Chapter:

1. K002, K003, K005, K006, K007, K026, K032, K033, K034, K048, K049, K050, K051, K052 K093, K094, K100, P006, P009, P013, P017, P021, P022, P023, P024, P028, P031, P033, P034, P038, P042, P045, P046, P047, P051,P056, P064, P065, P073, P075, P076, P077, P078, P088, P093, P095, P096, P099, P101, P103, P109, P116, P118, P119, P121, U001, U004, U006, U017, U024, U027, U030, U033, U034, U038, U039, U042, U045, U048, U052, U055, U056, U068, U069, U071, U072, U075,U076, U079, U081, U082, U084, U085, U087, U088, U090, U091, U096, U102, U112, U113, U117, U118, U120, U121, U123, U125, U126, U132, U139, U141, U145, U148, U152, U153, U156, U160, U166, U167, U181, U182, U183, U184, U186, U187, U190, U191, U194, U197, U201, U202, U204, U207, U222, U225, U234, U236,U240, U243, U246, U247.

2. wastes identified as hazardous on the basis of a characteristic alone (e.g., corrosivity, reactivity, ignitability and toxicity);

3. wastewater residues (less than one percent total organic carbon and less than one percent total suspended solids) resulting from the following well-designed and well-operated treatment methods for wastes listed in LAC 33:V.2215 and 2217 for which the administrative authority has not promulgated wastewater treatment standards: metals recovery, metals precipitation, cyanide destruction, carbon adsorption, chemical oxidation, steam stripping, biodegradation, and incineration or other direct thermal destruction;

4. Hazardous wastes listed in LAC 33:V.2215 and 2217 that are mixed hazardous/radioactive wastes;

5. Multi-source leachate that is derived from disposal of any listed waste, except from hazardous wastes F020, F021, F022, F023, F026, F027, or F028;

6. Nonwastewater forms of wastes listed in LAC 33:V.2215 that were originally disposed before August 17, 1988, and for which the administrative authority has promulgated "no land disposal" as the treatment standard (LAC 33:V.Chapter 22.Table 2). This provision does not apply to waste codes K044, K045, K047, and K061 (high zinc subcategory);

7. Nonwastewater forms of wastes listed in LAC 33:V.2215 for which the administrative authority has promulgated "no land disposal" as the treatment standard (LAC 33:V.Chapter 22.Subchapter A) that are generated in the course of treating wastewater forms of the wastes. This provision does not apply to waste codes K044, K045, K047, and K061 (high zinc subcategory);

8. Nonwastewater forms of waste codes K015 and K083.

Response: Cytec acknowledges the above citation. .

B. Effective January 1, 1991, the following wastes specified in LAC 33:V.Chapter 49 as EPA Hazardous Waste Numbers F002 (1,1,2-trichloroethane), F005 (benzene), F005 (2-ethoxy ethanol), F005 (2-nitropropane), F006 (wastewaters), F019, F025, F039 (wastewaters), K002, K003, K004 (wastewaters), K005 (wastewaters), K006, K008 (wastewaters), K009 (wastewaters), K011 (wastewaters), K013 (wastewaters), K014 (wastewaters), K015 (nonwastewaters), K017, K021 (wastewaters), K022 (wastewaters), K025 (wastewaters), K026, K029 (wastewaters), K031 (wastewaters), K032, K033, K034, K035, K041, K042, K046 (wastewaters and reactive nonwastewaters), K048, K049, K050, K051, K052, K060, K061 (wastewaters and high zinc subcategory greater than 15 percent zinc), K069 (CaSO nonwastewaters and all wastewaters), K073, K083, K084 (wastewaters), 4 K085, K095 (wastewaters), K096 (wastewaters), K097, K098, K100 (wastewaters), K101 (wastewaters), K102 (wastewaters), K105, K106 (wastewaters), P001, P002, P003, P004, P005, P006, P007, P008, P009, P010 (wastewaters), P011 (wastewaters), P012 (wastewaters), P014, P015, P016, P017, P018, P020, P022, P023, P024, P026, P027, P028, P031, P033, P034, P036 (wastewaters), P037, P038 (wastewaters), P042, P045, P046, P047, P048, P049, P050, P051, P054, P056, P057, P058, P059, P060, P064, P065 (wastewaters), P066, P067, P068, P069, P070, P072, P073, P075, P076, P077, P078, P081, P082, P084, P088, P092 (wastewaters), P093, P095, P096, P101, P102, P103, P105, P108, P110, P112, P113, P114, P115, P116, P118, P119, P120, P122, P123, U001, U002, U003, U004, U005, U006, U007, U008, U009, U010, U011, U012, U014, U015, U016, U017, U018, U019, U020, U021, U022, U023, U024, U025, U026, U027, U029, U030, U031, U032, U033, U034, U035, U036, U037, U038, U039, U041, U042, U043, U044, U045, U046, U047, U048, U049, U050, U051, U052, U053, U055, U056, U057, U059, U060, U061, U062, U063, U064, U066, U067, U068, U070, U071, U072, U073, U074, U075, U076, U077, U078, U079, U080, U081, U082, U083, U084, U085, U086, U089, U090, U091, U092, U093, U094, U095, U096, U097, U098, U099, U101, U103, U105, U106, U108, U109, U110, U111, U112, U113, U114, U115, U116, U117, U118, U119, U120, U121, U122, U123, U124, U125, U126, U127, U128, U129, U130, U131, U132, U133, U134, U135, U136 (wastewaters), U137, U138, U140, U141, U142, U143, U144, U145, U146, U147, U148, U149, U150, U151 (wastewaters), U152, U153, U154, U155, U156, U157, U158, U159, U160, U161, U162, U163, U164, U165, U166, U167, U168, U169, U170, U171, U172, U173, U174, U176, U177, U178, U179, U180, U181, U182, U183, U184, U185, U186, U187, U188, U189, U190, U191, U192, U193, U194, U196, U197, U200, U201, U202, U203, U204, U205, U206, U207, U208, U209, U210, U211, U213, U214, U215, U216, U217, U218, U219, U220, U222, U225, U226, U227, U228, U234, U236, U237, U238, U239, U240, U243, U244, U246, U247, U248, and U249 and the following wastes identified as hazardous based on a characteristic alone, and described as D001, D002, D003, D004 (wastewaters), D005, D006, D007, D008 (except for lead materials stored before secondary smelting), D009 (wastewaters), D010, D011, D012, D013, D014, D015, D016, and D017 are prohibited from land disposal, except as otherwise specified in LAC 33:V.2219.

Response: Cytec acknowledges the above citation.

C. Effective May 8, 1992, the following wastes are prohibited from land disposal:

1. wastes specified in LAC 33:V.Chapter 49 as EPA Hazardous Waste Numbers F039

(nonwastewaters), K031 (nonwastewaters), K084 (nonwastewaters), K101 (nonwastewaters). K102 (nonwastewaters), K106 (nonwastewaters), P010 (nonwastewaters), P011 (nonwastewaters), P012 (nonwastewaters), P036 (nonwastewaters), P038 (nonwastewaters), P065 (nonwastewaters), P087, P092 (nonwastewaters), U136 (nonwastewaters), and U151 (nonwastewaters) and the wastes identified as hazardous based on a characteristic alone and specified in LAC 33:V.Chapter 49 as EPA Hazardous Waste Numbers D004 (nonwastewaters), and D009 (nonwastewaters); and

2. RCRA hazardous wastes that contain naturally occurring radioactive materials.

Response: Cytec acknowledges the above citation.

D. Effective May 8, 1992, hazardous wastes listed in LAC 33:V.2215.A, 2217.A, and 2219.A that are mixed radioactive/hazardous wastes are prohibited from land disposal, except as provided in LAC 33:V.2219 and underground injection which is regulated under LAC 33:V.2269.B .

Response: Cytec acknowledges the above citation.

E. Subject to applicable prohibitions in LAC 33:V.2209, 2211, and 2213, contaminated soil and debris are prohibited from land disposal as follows:

1. effective May 8, 1994, debris that is contaminated with wastes listed in LAC 33:V.2219.A and debris that is contaminated with any characteristic waste for which treatment standards are established in LAC 33:V.Chapter 22.Subchapter A are prohibited from land disposal;

2. effective May 8, 1994, mixed radioactive hazardous debris that is contaminated with wastes listed in LAC 33:V.2219.A and mixed radioactive hazardous debris that is contaminated with any characteristic waste for which treatment standards are established in LAC 33:V.Chapter 22.Subchapter A are prohibited from land disposal;

3. LAC 33:V.2219.E.1 and 2 shall not apply where the generator has failed to make a good-faith effort to locate treatment capacity suitable for its waste, has not utilized such capacity as it has found to be available, or has failed to file a report as required by LAC 33:V.2239.H by August 12, 1993, or within 90 days after the hazardous waste is generated (whichever is later) describing the generator's efforts to locate treatment capacity. Where LAC 33:V.2219. E.1 and 2 do not apply, all wastes described in these paragraphs are prohibited from land disposal effective May 8, 1993;

4. effective May 8, 1993, hazardous soil contaminated with wastes specified in LAC 33:V.2219 having treatment standards in LAC 33:V.Chapter 22.Subchapter A based on incineration or mercury retorting or vitrification and soils contaminated with hazardous wastes listed in LAC 33:V.2215., 2217, and 2219 that are mixed radioactive hazardous wastes are prohibited from land disposal;

5. when used in LAC 33:V.2219.E.1 and 2, debris is defined as follows:

   a. debris as defined in LAC 33:V.2203.A; or

   b. nonfriable inorganic solids that are incapable of passing through a 9.5- mm standard sieve and that require cutting, or crushing and grinding in mechanical sizing equipment prior to stabilization, limited to the following inorganic or metal materials:

      i. metal slags (either dross or scorial)

ii. glassified slag;

iii. glass;

iv. concrete (excluding cementitious or pozzolanic stabilized hazardous wastes);

v. masonry and refractory bricks;

vi. metal cans, containers, drums, or tanks;

vii. metal nuts, bolts, pipes, pumps, valves, appliances, or industrial equipment; and

viii. scrap metal as defined in LAC 33:V.109.

Response: Cytec acknowledges the above citation.

F. Between January 1, 1991, and May 8, 1992, wastes included in LAC 33:V.2219.B-E may be disposed of in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in LAC 33:V.2239.I.

Response: Cytec acknowledges the above citation.

G. The requirements of LAC 33:V.2219.B-E do not apply if one of the following conditions is met:

1. the wastes meet the applicable standards specified in LAC 33:V.Chapter 2.Subchapter A;

2. persons have been granted an exemption from a prohibition pursuant to a petition under LAC 33:V. 2241 or 2271 with respect to those wastes and units covered by the petition;

3. the wastes meet the applicable alternate standards established pursuant to a petition granted under LAC 33:V.2231; or

4. persons have been granted an extension to the effective date of a prohibition pursuant to LAC 33:V.2239, with respect to those wastes covered by the extension.

Response: Cytec acknowledges the above citation.

H. To determine whether a hazardous waste listed in LAC 33:V.2215.A, 2217.A, or 2219.A exceeds the applicable treatment standards specified in LAC 33:V.Chapter 22.Table 2 the initial generator must test a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable LAC 33:V.Chapter 22.Subchapter A levels, the waste is prohibited from land disposal, and all requirements of this Chapter are applicable, except as otherwise specified.

Response: Cytec acknowledges the above citation. Cytec will test a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or Cytec may use knowledge of the waste to determine whether a hazardous waste listed in LAC 33:V.2215.A , 2217.A, and 2219.A exceeds the applicable treatment standards specified

in LAC 33:V.Chapter 22.Table 2.

I. Effective May 8, 1993, D008 lead materials stored before secondary smelting are prohibited from land disposal. On or before March 1, 1993, the owner or operator of each secondary lead smelting facility shall submit to EPA the following:

1. a binding contractual commitment to construct or otherwise provide capacity of storing such D008 wastes prior to smelting which complies with all applicable storage standards;

2. documentation that the capacity to be provided will be sufficient to manage the entire quantity of such D008 wastes; and

3. a detailed schedule for providing such capacity.

Note: Failure by a facility to submit such documentation shall render such D008 managed by that facility prohibited from land disposal effective March 1, 1993. In addition, no later than July 27, 1992 the owner or operator of each facility must place in the facility record documentation of the manner and location in which such wastes will be managed pending completion of such capacity, demonstrating that such management capacity will be adequate and complies with all applicable requirements of LAC 33:V.Subpart 1.

Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.2219.I. do not apply to Cytec, because Cytec does not own or operate a secondary lead smelting facility.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 16:1057 (December 1990), LR 17:658 (July 1991), LR 21:266 (March 1995), LR 22:22 (January 1996).

§2221. Schedule of Wastes Identified or Listed After November 8, 1984

A. The administrative authority shall review these regulations and shall study and identify additional wastes to be incorporated into the regulations and prohibited from land disposal. He or she shall also study and report on changes in technology which make alternative methods of treatment of hazardous waste available that may provide alternatives to land disposal. Such review shall be done on or before December 31 each year beginning with 1989.

Response: Cytec acknowledges the above citation.

B. The administrative authority shall develop a schedule within six months after the date of identification or listing of a new hazardous waste to make a land disposal determination.

Response: Cytec acknowledges the above citation.

C. Newly-listed Wastes

1. Effective March 20, 1995, the wastes specified in LAC 33:V.Chapter 49 as EPA Hazardous Waste Numbers F037, F038, K107, K108, K109, K110, K111, K112, K117, K118, K123, K124, K125, K126, K131, K132, K136, U328, U353, and U359 are prohibited from land disposal.

Response: Cytec acknowledges the above citation.

2. Effective March 20, 1995, radioactive wastes that are mixed with hazardous wastes specified in LAC 33:V.Chapter 49 as EPA Hazardous Waste Numbers K107, K108, K109, K110, K111, K112, K117, K118, K123, K124, K125, K126, K131, K132, K136, U328, U353, and U359 are prohibited from land disposal.

   Response: Cytec acknowledges the above citation.

3. Effective March 20, 1995, debris contaminated with hazardous wastes specified in LAC 33:V.Chapter 49 as EPA Hazardous Waste Numbers F037 and F038, K107, K108, K109, K110, K111, K112, K117, K118, K123, K124, K125, K126, K131, K132, K136, U328, U353, and U359 and which is not contaminated with any other waste already subject to a prohibition are prohibited from land disposal.

   Response: Cytec acknowledges the above citation.

4. Between June 30, 1992 and, March 20, 1995, the wastes included in LAC 33:V.2221.C.1)3 that are the subject of a national capacity variance may be disposed of in a landfill, only if such unit is in compliance with the requirements specified in LAC 33:V.2239.I.2 and may be generated in and disposed of in a surface impoundment only if such unit is in compliance with either LAC 33:V.2239.I.2 or LAC 33:V.2237.

   Response: Cytec acknowledges the above citation.

5. The requirements of LAC 33:V.2221.C.1)3 do not apply if:

   a. the wastes meet the applicable standards specified in LAC 33:V.Chapter 22.Subchapter A ;

   b. a petitioner has been granted an exemption from a prohibition in accordance with a petition under LAC 33:V.2241 or 2271, with respect to those wastes and units covered by the petition;

   c. the wastes meet the applicable alternate standards established in accordance with a petition granted under LAC 33:V.2231; or

   d. a person who generates, treats, stores, or disposes of hazardous waste has been granted an extension to the effective date of a prohibition in accordance with LAC 33:V.2239 with respect to the wastes covered by the extension.

   Response: Cytec acknowledges the above citation.

6. To determine whether a hazardous waste listed in LAC 33:V.2221.C exceeds the applicable treatment standards specified in LAC 33:V.Chapter 22.Table 2, the initial generator must test a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable LAC 33:V.Chapter 22.Table 2 levels, the waste is prohibited from land disposal and all requirements of LAC 33:V.Chapter 22 are applicable, except as otherwise specified.

   Response: Cytec acknowledges the above citation. Cytec will test a representative

sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or Cytec may use knowledge of the waste to determine whether a hazardous waste listed in LAC 33:V.2221.C exceeds the applicable treatment standards specified in LAC 33:V.Chapter 22.Table 2.

D. Waste-specific Prohibitions: Ignitable and Corrosive Characteristic Wastes Whose Treatment Standards Were Vacated

1. Effective March 20, 1995, the wastes specified in LAC 33:V.4903.B as D001 (and is not in the High TOC Ignitable Liquids Subcategory) and specified in LAC 33:V.4903.C as D002 that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA) or that inject in Class I deep wells regulated under the Safe Drinking Water Act (SDWA) or that are zero-dischargers that engage in CWA-equivalent treatment before ultimate land disposal are prohibited from land disposal. CWA-equivalent treatment means biological treatment for organics, alkaline chlorination, or ferrous sulfate precipitation for cyanide, precipitation/sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or better than these technologies.

   Response: Cytec acknowledges the above citation.

2. Effective March 20, 1995, the wastes specified in LAC 33:V.4903.B as D001 (and is not in the High TOC Ignitable Liquids Subcategory) and specified in LAC 33:V.4903.C as D002 that are managed in systems defined in LAC 43:XVII.103.C as Class V injection wells that do not engage in CWA-equivalent treatment before injection are prohibited from land disposal.

   Response: Cytec acknowledges the above citation.

E. Waste-specific Prohibitions: Newly Identified Organic Toxicity Characteristic Wastes and Newly Listed Coke By-product and Chlorotoluene Production Wastes

1. Effective September 20, 1995, the wastes specified in LAC 33:V.Chapter 49 as EPA Hazardous Waste Numbers K141, K142, K143, K144, K145, K147, K148, K149, K150, and K151 are prohibited from land disposal. In addition, debris contaminated with EPA Hazardous Waste Numbers F037, F038, K107-K112, K117, K118, K123-K126, K131, K132, K136, U328, U353, and U359 and soil and debris contaminated with D012-D043, K141-K145, and K147-K151 are prohibited from land disposal. The following wastes that are specified in LAC 33:V.Chapter 49 as EPA Hazardous Waste Numbers D012, D013, D014, D015, D016, D017, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, and D043 that are not radioactive or that are managed in systems other than those whose discharge is regulated under the CWA or that are zero dischargers that do not engage in CWA-equivalent treatment before ultimate land disposal or that are injected in Class I deep wells regulated under the SDWA are prohibited from land disposal. CWA-equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation/sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or better than these technologies.

   Response: Cytec acknowledges the above citation.

2. On September 19, 1996, radioactive wastes that are mixed with D018- D043 that are managed in

systems other than those whose discharge is regulated under the CWA or that inject in Class I deep wells regulated under the SDWA or that are zero dischargers that engage in CWA-equivalent treatment before ultimate land disposal are prohibited from land disposal. CWA-equivalent treatment means biological treatment of organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation/sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or better than these technologies. Radioactive wastes mixed with K141-K145 and K147-K151 are also prohibited from land disposal. In addition, soil and debris contaminated with these radioactive mixed wastes are prohibited from land disposal.

Response: Cytec acknowledges the above citation.

3. Between March 20, 1995 and September 19, 1996, the wastes included in LAC 33:V.2221.E.2 may be disposed in a landfill or surface impoundment, only if such unit is in compliance with the requirements specified in LAC 33:V.2239.I.2.

   Response: Cytec acknowledges the above citation.

4. The requirements of LAC 33:V.2221.E.1-3 do not apply if the following conditions are met:

   a. the wastes meet the applicable treatment standards specified in LAC 33:V.Chapter 22.Subchapter A;

   b. persons have been granted an exemption from a prohibition in accordance with a petition under LAC 33:V.2241, with respect to those wastes and units covered by the petition;

   c. the wastes meet the applicable alternate treatment standards established in accordance with a petition granted under LAC 33:V.2231; and

   d. persons have been granted an extension to the effective date of a prohibition in accordance with LAC 33:V.2239, with respect to those wastes covered by the extension.

   Response: Cytec acknowledges the above citation.

5. To determine whether a hazardous waste identified in LAC 33:V.2221 exceeds the applicable treatment standards specified in LAC 33:V.Chapter 22.Table 2, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable LAC 33:V.Chapter 22.Table 2 levels, the waste is prohibited from land disposal, and all requirements of this Chapter are applicable, except as otherwise specified.

   Response: Cytec acknowledges the above citation. Cytec will test a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or Cytec may use knowledge of the waste to determine whether a hazardous waste listed in LAC 33:V.2221 exceeds the applicable treatment standards specified in LAC 33:V.Chapter 22.Table 2.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 17:658 (July 1991), LR 21:266 (March 1995), LR 22:22 (January 1996).

§2223. Applicability of Treatment Standards

A. A waste identified in the LAC 33:V.Chapter 22.Table 2 may be land disposed only if it meets the requirements found in Table 2. For each waste, the table identifies one of the three types of treatment standard requirements:

1. all hazardous constituents in the waste or in the treatment residue must be at or below the values found in the table for that waste ("total waste standards");

   Response: Cytec acknowledges the above citation.

2. the hazardous constituents in the extract of the waste or in the extract of the treatment residue must be at or below the values found in the table ("waste extract standards"); or

   Response: Cytec acknowledges the above citation.

3. the waste must be treated using the technology specified in the table ("technology standard"), which are described in detail in LAC 33:V.Chapter 22.Table 3,Technology Codes and Description of Technology-based Standards.

   Response: Cytec acknowledges the above citation.

B. For wastewaters, compliance with concentration level standards is based on maximums for any one day, except for D004-D011 wastes for which the previously promulgated treatment standards based on grab samples remain in effect. For all nonwastewaters, compliance with concentration level standards is based on grab sampling. For wastes covered by the waste extract standards, the Test Method 1311, the Toxicity Characteristic Leaching Procedure as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110, must be used to measure compliance. An exception is made for D004 and D008, for which either of two test methods may be used: Method 1311 or Method 1310, the Extraction Procedure Toxicity Test. For wastes covered by a technology standard, the wastes may be land disposed after being treated using that specified technology or an equivalent treatment technology approved by the administrative authority under the procedures set forth in LAC 33:V.2227.

   Response: Cytec acknowledges the above citation.

C. For characteristic wastes (D001, D002, and D012-D043) that are subject to treatment standards in LAC 33:V.Chapter 22.Table 2, Treatment Standards for Hazardous Wastes, all underlying hazardous constituents (as defined in LAC 33:V.2203) must meet Universal Treatment Standards, found in LAC 33:V.Chapter 22.Table 7, prior to land disposal.

   Response: Cytec acknowledges the above citation.

D. If a treatment standard has been established in LAC 33:V.2227 and 2229 for a hazardous waste that is itself hazardous debris, the waste is subject to those standards rather than these standards for hazardous debris under LAC 33:V.2230.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 16:1057 (December 1990), LR 17:658 (July 1991), LR 21:266 (March 1995), LR 22:22 (January 1996), LR 22:819 (September 1996).

§2225. Treatment Standards Expressed as Concentrations in Waste Extract

A. LAC 33:V.Chapter 22.Table 7 identifies the hazardous constituents, along with the nonwastewater and wastewater treatment standard levels, that are used to regulate most prohibited hazardous wastes with numerical limits. For determining compliance with treatment standards for underlying hazardous constituents, as defined in LAC 33:V.2203, these treatment standards may not be exceeded. Compliance with these treatment standards is measured by an analysis of grab samples, unless otherwise noted in the LAC 33:V.Chapter 22.Table 7.

Response: Cytec acknowledges the above citation.

B. When wastes with differing treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue must meet the lowest treatment standard for the constituent of concern.

Response: Cytec acknowledges the above citation.

C. The treatment standards for F001-F005 nonwastewater constituents carbon disulfide, cyclohexanone, and/or methanol apply to wastes that contain only one, two, or three of these constitutents. Compliance is measured for these constituents in the waste extract from test Method 1311, the Toxicity Characteristic Leaching Procedure as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110. If the waste contains any of these three constituents along with any of the other 25 constituents found in F001-F005, then compliance with treatment standards for carbon disulfide, cyclohexanone, and/or methanol are not required.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 16:1057 (December 1990), LR 21:266 (March 1995), LR 22:22 (January 1996), LR 22:820 (September 1996), LR 23:565 (May 1997).

§2227. Treatment Standards Expressed as Specified Technologies: Procedures for Approval of Alternative Treatments

A. The wastes specified in Subsection A.1-3 of this Section and in Table 2 of this Chapter, for which standards are expressed as a treatment method rather than a concentration level, must be treated using the technology or technologies specified in Subsection A.1-3 of this Section and in Table 2 of this Chapter.

1. Liquid hazardous wastes containing PCBs at concentrations greater than or equal to 50 ppm but less than 500 ppm must be incinerated in accordance with the technical requirements of 40 CFR 761.70 or burned in high-efficiency boilers in accordance with the technical requirements of 40 CFR 761.60. Liquid hazardous wastes containing PCBs at concentrations greater than or equal to 500 ppm must be incinerated in accordance with the technical requirements of 40 CFR 761.70. Thermal treatment under LAC 33:V.2227 must also be in compliance with applicable requirements in LAC 33:V.Subpart 1.

2. Nonliquid hazardous wastes containing halogenated organic compounds (HOCs) in total concentrations greater than or equal to 1,000 mg/kg and liquid HOC-containing wastes that are prohibited under LAC 33:V.2213 must be incinerated in accordance with the requirements of LAC 33:V.Chapter 31 or Chapter 43.Subchapter N. These treatment standards do not apply where the waste is subject to a LAC 33:V.Chapter 22 treatment standard for a specific HOC (such as a hazardous waste chlorinated solvent for which a treatment standard is established under LAC 33:V.2225.A).

3. A mixture consisting of wastewater, the discharge of which is subject to regulation under either section 307(b) or section 402 of the Clean Water Act or R.S. 30:2071-2079 and de minimis losses of materials from manufacturing operations in which these materials are used as raw materials or are produced as products in the manufacturing process, and that meet the criteria of the D001 ignitable liquids containing greater than 10 percent total organic constituents (TOC) subcategory, is subject to the DEACT treatment standard described in LAC 33:V.Chapter 22.Table 3. For purposes of this Paragraph, de minimis losses include those from normal material handling operations (e.g., spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves, or other devices used to transfer materials); minor leaks from process equipment, storage tanks, or containers; leaks from well-maintained pump packings and seals; sample purgings; and relief device discharges.

Response: Cytec acknowledges the above citation.

B. Any person may submit an application to the administrative authority demonstrating that an alternative treatment method can achieve a measure of performance equivalent to that achieved by methods specified in LAC 33:V.2227.A, C, and D or specified in LAC 33:V.Chapter 22.Table 8. The applicant must submit information demonstrating that his or her treatment method is in compliance with federal, state, and local requirements and is protective of human health and the environment. On the basis of such information and any other available information, the administrative authority may approve the use of the alternative treatment method if he or she finds that the alternative treatment method provides a measure of performance equivalent to those achieved by methods specified in LAC 33:V.2227.A, C, and D or specified in LAC 33:V.Chapter 22.Table 8. Any approval must be stated in writing and may contain such provisions and conditions as the administrative authority deems appropriate. The person to whom such approval is issued must comply with all limitations contained in such a determination.

Response: Cytec acknowledges the above citation.

C. As an alternative to the otherwise applicable LAC 33:V.Chapter 22.Subchapter A treatment standards, lab packs are eligible for land disposal provided all of the following requirements are met:

1. the lab packs comply with the applicable provisions of LAC 33:V.2519 and 4511;

2. the lab packs do not contain any of the wastes listed in LAC 33:V.Chapter 22.Table 6;

3. the lab packs are incinerated in accordance with the requirements of LAC 33:V.Chapter 31 and Chapter 43.Subchapter N; and

4. any incinerator residues from lab packs containing D004, D005, D006, D007, D008, D010, or D011 are treated in compliance with the applicable treatment standards specified for such wastes in LAC 33:V.Chapter 22.Subchapter A..

Response: Cytec acknowledges the above citation.

D. Radioactive hazardous mixed wastes are subject to the treatment standards in LAC 33:V.2223. Where treatment standards are specified for radioactive mixed wastes in LAC 33:V.Chapter 22.Table 2, those treatment standards will govern. Where there is no specific treatment standard for radioactive mixed waste, the treatment standard for the hazardous waste (as designated by EPA waste code) applies. Hazardous debris containing radioactive waste is subject to the treatment standards specified in LAC 33:V.2230.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 16:1057 (December 1990), LR 17:658 (July 1991), LR 21:266 (March 1995), LR 22:22 (January 1996).

§2229. Treatment Standards Expressed as Waste Concentrations

A. LAC 33:V.Chapter 22.Table 2 identifies the prohibited wastes and the concentrations of their associated hazardous constituents that may not be exceeded by the waste or treatment residual (not an extract of such waste or residual) for the allowable land disposal of such waste or residual. Compliance with these concentrations is required, based upon grab samples, unless otherwise noted in LAC 33:V.Chapter 22.Table 2.

Response: Cytec acknowledges the above citation.

B. When wastes with differing treatment standards for a particular regulated hazardous constituent are combined for treatment, the treatment residue must meet the lowest treatment standard for that constituent.

Response: Cytec acknowledges the above citation.

C. Notwithstanding the prohibitions specified in Subsection A of this Section, treatment and disposal facilities may demonstrate (and certify pursuant to LAC 33:V.2247.C) compliance with the treatment standards for organic constituents specified by a footnote in Table 2 of this Chapter provided all of the following conditions are satisfied.

1. the treatment standards for the organic constituents were established on the basis of incineration in units operated in accordance with the technical requirements of LAC 33:V.Chapter 31 or Chapter 43.Subchapter N, or based on combustion in fuel substitution units operating in accordance with applicable technical requirements;

2. the treatment or disposal facility has used the methods referenced in LAC 33:V.2229.C.1 to treat the organic constituents; and

3. the treatment or disposal facility may demonstrate compliance with organic constituents if good-faith analytical efforts achieve detection limits for the regulated organic constituents that do not exceed the treatment standards specified in LAC 33:V.2229.C by an order of magnitude.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 16:1057 (December 1990), LR 17:658 (July 1991), LR 22:22 (January 1996).

§2230. Treatment Standards for Hazardous Debris

A. Treatment Standards. Hazardous debris must be treated prior to land disposal unless the administrative authority determines that the debris is no longer contaminated with hazardous waste or the debris is treated to the waste-specific treatment standard in Table 8 of this Chapter.

1. Hazardous debris must be treated for each contaminant subject to treatment defined by LAC 33:V.2230.B using the technology or technologies identified in Table 8 of this Chapter.

2. Hazardous debris that exhibits the characteristic of ignitability, corrosivity, or reactivity identified under LAC 33:V.4903.B, C, and D, respectively, must be deactivated by treatment identified in Table 8 of this Chapter.

3. The treatment standard of Table 8 of this Chapter must be achieved for each type of debris contained in a mixture of debris types. If an immobilization technology is used in a treatment train, it must be the last treatment technology used.

4. Debris that is contaminated with two or more contaminants subject to treatment identified under LAC 33:V.2230.B must be treated for each contaminant using one or more of the treatment technologies identified in Table 8 of this Chapter. If an immobilization technology is used in a treatment train, it must be the last treatment technology used.

5. Hazardous debris that is also a waste PCB under 40 CFR part 761 is subject to the requirements of 40 CFR part 761 or the requirements of this Section, whichever is more stringent.

Response: Cytec acknowledges the above citation.

B. Hazardous debris must be treated for each "contaminant subject to treatment." The contaminants subject to treatment must be determined as follows:

1. the contaminants subject to treatment for debris that exhibit the Toxicity Characteristic (TC) by LAC 33:V.4903 are those EP constituents for which debris exhibits the TC toxicity characteristic;

2. the contaminants subject to treatment for debris that is contaminated with a prohibited listed hazardous waste are those constituents or wastes for which treatment standards are established under LAC 33:V.Chapter 22.Table 2; and

3. hazardous debris that is reactive because of cyanide must be treated for cyanide.

Response: Cytec acknowledges the above citation.

C. Hazardous debris that has been treated using one of the specified extraction or destruction technologies in Table 8 of this Chapter and does not exhibit a characteristic of hazardous waste identified under LAC 33:V.4903 after treatment is not a hazardous waste and need not be managed in a subtitle C facility. Hazardous debris contaminated with a listed waste that is treated by an immobilization technology specified in Table 8 of this Chapter is a hazardous waste and must be managed in a subtitle C facility.

Response: Cytec acknowledges the above citation.

D. Treatment Residues

1. General Requirements

a. residue from the treatment of hazardous debris must be separated from the treated debris using simple physical or mechanical means; and

b. residue from the treatment of hazardous debris is subject to the waste-specific treatment standards provided by LAC 33:V.Chapter 22.Subchapter B for the waste contaminating the debris.

2. Residue from the deactivation of ignitable, corrosive, or reactive characteristic hazardous debris (other than cyanide-reactive) that is not contaminated with a contaminant subject to treatment defined by LAC 33:V.2230.B must be deactivated prior to land disposal and is not subject to the waste-specific treatment standard of LAC 33:V.Chapter 22.Table 2.

3. Residue from the treatment of debris that is reactive because of cyanide must meet the treatment standards for D003.

4. Ignitable nonwastewater residue containing equal to or greater than 10 percent total organic carbon is subject to the technology-based standards for D001.

5. Layers of debris removed by spalling are hazardous debris that remain subject to the treatment standards of LAC 33:V.2230.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 21:266 (March 1995), amended LR 22:22 (January 1996), LR 23:565 (May 1997).

§2231. Variance from a Treatment Standard

A. Where the treatment standard is expressed as a concentration in a waste or waste extract and a waste cannot be treated to the specified level, or where the treatment technology is not appropriate to the waste, the generator or treatment facility may petition the administrative authority for a variance from the treatment standard. The petitioner bears the burden of proving that because the physical or chemical properties of the waste differ significantly from wastes analyzed in developing the treatment

standard, the waste cannot be treated to specified levels or by the specified methods.

Response: Cytec acknowledges the above citation.

B. Each petition must be submitted to the administrative authority for consideration in accordance with the procedures in LAC 33:V.105.H.

Response: Cytec acknowledges the above citation.

C. After receiving a petition for a variance from a treatment standard, the administrative authority may request any additional information or samples that he or she may require to evaluate the petition. Additional copies of the complete petition may be requested as needed.

1. Each petition must include the following statement signed by the petitioner or a duly authorized representative:

   I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

2. Certification. Each petition for a variance must be certified by a Louisiana licensed professional engineer (PE).

Response: Cytec acknowledges the above citation.

D. The administrative authority will give public notice of the intent to approve or deny a petition and will provide the person requesting the variance and the public, through a newspaper notice in the official state journal and the local newspaper in the affected area, the cost of which will be charged to the person requesting the variance, the opportunity to submit written comments on the request and the conditions of the variance, allowing a 30-day comment period. The notices referred to in this Section will be provided in the local newspaper in three separate issues; however, the 30-day comment or notice period shall begin with the notice in the official state journal. The administrative authority will also, in response to a request or at his or her own discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning the variance request. The administrative authority will give public notice of the hearing at least 30 days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments.) The final decision on a variance from a treatment standard will also be published.

Response: Cytec acknowledges the above citation.

E. A generator, treatment facility, or disposal facility that is managing a waste covered by a variance from the treatment standards must comply with the waste analysis requirements for prohibited wastes under LAC 33:V.2245 and 2247.

Response: Cytec acknowledges the above citation.

F. During the petition review process, the applicant is required to comply with all prohibitions on land disposal under this Chapter, unless a petition for a variance has been approved by the EPA, and the administrative authority grants an emergency variance. If EPA has approved the variance, the land

disposal of the waste may continue for up to one year under an emergency variance issued by the administrative authority until the administrative authority makes a decision on the petition for variance. In no case shall an emergency variance extend beyond one year after the date of issuance. After the administrative authority issues a decision on the variance, the waste may be land disposed only in accordance with the provisions of the variance.

Response: Cytec acknowledges the above citation.

G. Where the treatment standard is expressed as a concentration in a waste or waste extract and a waste generated under conditions specific to only one site cannot be treated to the specified level or where the treatment technology is not appropriate to the waste, the generator or treatment facility may apply to the administrative authority or his delegated representative for a site-specific variance from a treatment standard. The applicant for a site-specific variance must demonstrate that because the physical or chemical properties of the waste differs significantly from the waste analyzed in developing the treatment standard, the waste cannot be treated to specified levels or by the specified methods.

Response: Cytec acknowledges the above citation.

H. Each application for a site-specific variance from a treatment standard must include the information in LAC 33:V.105.H.2.

Response: Cytec acknowledges the above citation.

I. After receiving an application for a site-specific variance from a treatment standard, the administrative authority or his delegated representative may request any additional information or samples which may be required to evaluate the application.

Response: Cytec acknowledges the above citation.

J. A generator, treatment facility, or disposal facility that is managing a waste covered by a site-specific variance from a treatment standard must comply with the waste analysis requirements for restricted wastes found under LAC 33:V.2245 and 2247.

Response: Cytec acknowledges the above citation.

K. During the application review process the applicant for a site-specific variance must comply with all restrictions on land disposal under LAC 33:V.2231 once the effective date for the waste has been reached.

Response: Cytec acknowledges the above citation.

L. The facilities listed in LAC 33:V.Chapter 22.Table 10 are excluded from the treatment standard under LAC 33:V.Chapter 22.Table 2 and are subject to the constituent concentrations.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 16:1057 (December 1990), LR 17:658 (July 1991), LR 21:266 (March 1995), LR 21:1334 (December 1995), LR 22:22 (January

1996).

§2233. Universal Treatment Standards

LAC 33:V.Chapter 22.Table 7 identifies the hazardous constituents, along with the nonwastewater and wastewater treatment standard levels that are used to regulate most prohibited hazardous wastes with numerical limits. For determining compliance with treatment standards for underlying hazardous constituents as defined in LAC 33:V.2203.A, these treatment standards may not be exceeded. Compliance with these treatment standards is measured by an analysis of grab samples, unless otherwise noted in LAC 33:V.Chapter 22.Table 7.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 22:22 (January 1996).

§2235. Landfills and Surface Impoundments Disposal Restrictions

A. Before January 1, 1991, wastes which are otherwise prohibited from land disposal under LAC 33:V.2215.G may be disposed in a landfill or surface impoundment which is in compliance with the requirements of LAC 33:V.2239 provided that the requirements of LAC 33:V.2235 are met.

1. Before such disposal, the generator seeking to dispose of such wastes must make a good-faith effort to locate and contract with treatment and recovery facilities practically available which provide the greatest environmental benefit.

Response: Cytec acknowledges the above citation.

2. Prior to the initial shipment of waste the generator must submit to the administrative authority a demonstration and certification that the requirements of LAC 33:V.2235.A.1 have been met. The demonstration must include a list of facilities and facility officials contacted and their addresses, telephone numbers, and contact dates. The generator does not need to wait for administrative authority approval of the demonstration/certification before shipment of the waste. However, if the administrative authority invalidates the demonstration/certification for the reasons outlined in LAC 33:V.2235.B.2, the generator must immediately cease further shipments of the waste and immediately inform all facilities that received the waste of such invalidation and keep records of such communication on-site in his files.

a. If a generator determines that there is no practically available treatment or recycling for his or her waste, he or she must indicate so in his or her demonstration and provide a written discussion of why he or she was not able to obtain treatment or recovery for that waste. The generator must also provide the following certification: "I certify under penalty of law that the requirements of LAC 33:V.2235.A.1 have been met and that disposal in a landfill or surface impoundment is the only practical alternative to treatment currently available. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment."

Response: Cytec acknowledges the above citation.

b. If a generator determines that there are practically available treatment or recycling technologies for his or her waste, he or she must contract to use the practically available technology that yields the greatest environmental benefit, as indicated in his or her demonstration. The generator must submit to the administrative authority, prior to the initial shipment of waste, a demonstration that includes a list of facilities and facility officials contacted, addresses, telephone numbers, and contact dates, as well as written discussion explaining why the treatment or recovery technology chosen provides the greatest environmental benefit. He or she must also provide the following certification:

"I certify under penalty of law that the requirements of LAC 33:V.2235.A.1 have been met and that I have contracted to treat or recycle my waste (or will otherwise provide treatment or recycling) by the practically available technology which yields the greatest environmental benefit, as indicated in my demonstration. I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment." The generator does not need to wait for administrative authority approval of the demonstration/certification before shipment of the waste.

Response: Cytec acknowledges the above citation.

3. Where the generator has determined that there is no practically available treatment or recycling for his or her waste, with the initial shipment of waste, such generator must submit a copy of the demonstration and the certification required in Subsection A.2.a of this Section to the receiving facility. For each subsequent waste shipment, only the certification must be submitted if the conditions being certified remain unchanged. Such generator must retain on-site a copy of the demonstration (if applicable) and certification required for each waste shipment for at least five years from the date that the waste that is the subject of such demonstration was last sent to on-site or off-site disposal. The five-year record retention requirement is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the administrative authority.

Response: Cytec acknowledges the above citation.

4. Where the generator has determined that there is practically available treatment or recycling for his or her waste prior to disposal, with the initial shipment of waste, such generator must submit a copy of the demonstration and the certification required in Subsection A.2.b of this Section to the receiving facility. With each subsequent waste shipment, only the certification is required if the conditions certified remain unchanged. Such a generator must retain on-site a copy of the demonstration (if applicable) and certification required for each waste shipment for at least five years from the date that the waste that is the subject of such documentation was last sent to on-site or off-site disposal. The five-year record retention requirement is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the administrative authority.

Response: Cytec acknowledges the above citation.

B. After receiving the demonstration and certification, the administrative authority may request any additional information that he or she deems necessary to evaluate the certification.

1. A generator who has submitted a certification under LAC 33:V.2235 must immediately notify the administrative authority when he or she has knowledge of any change in the conditions that formed the basis of his or her certification, and the generator is required to submit a new demonstration and

certification to the receiving facility.

Response: Cytec acknowledges the above citation.

2. If, after review of the certification, the administrative authority determines that practically available treatment or recycling exists where the generator has certified otherwise, or that some other method of practically available treatment or recycling exists that yields greater environmental benefit than that which the generator has certified, the administrative authority may invalidate the certification.

   Response: Cytec acknowledges the above citation.

3. The generator does not need to wait for administrative approval of the demonstration/certification before shipment of the waste. However, if the administrative authority invalidates a certification, the generator must immediately cease further shipments of the wastes and inform all facilities that received the waste of such invalidation and keep records of such communication on-site in his or her files.

   Response: Cytec acknowledges the above citation.

C. A treatment, recovery, or storage facility receiving wastes subject to a valid certification must keep copies of the generator's demonstration (if applicable) and certification in its operating records.

1. The owner or operator of a treatment or recovery facility must certify that he or she has treated the waste in accordance with the generator's demonstration. The following certification is required:

   I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with treatment as specified in the generator's demonstration. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

2. The owner or operator of a treatment, recovery, or storage facility must, for each initial shipment of waste, send a copy of the generator's demonstration (if applicable) and certification under LAC 33:V.2235.A.2, and certification under LAC 33:V.2235.C.1 (if applicable) to the facility receiving the waste or treatment residues. With each subsequent waste shipment, only the certification is required to be submitted provided that the conditions being certified remain unchanged.

   Response: The requirements of LAC 33:V.2235.C. do not apply to Cytec, because Cytec does not currently own or operate a landfill or surface impoundment disposal facility receiving wastes prohibited under LAC 33:V.2215.G.

D. The owner or operator of a disposal facility must ensure that those wastes prohibited under LAC 33:V.2215.G are subject to a certification according to the requirements of this Section prior to disposal in a landfill or surface impoundment, and that the units receiving such wastes must meet the minimum technological requirements of LAC 33:V.2239.I.2.

   Response: The requirements of LAC 33:V.2235.D. do not apply to Cytec, because Cytec does not currently own or operate a landfill or surface impoundment disposal facility receiving wastes prohibited under LAC 33:V.2215.G.

E. Once the administrative authority receives the certification, and provided that the wastes have been recycled or treated by the treatment (if any) determined by the generator to yield the greatest environmental benefit practically available, the wastes or treatment residuals may be disposed of in a landfill or surface impoundment unit meeting the requirements of LAC 33:V.2239.I.2, unless otherwise prohibited by the administrative authority.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 16:1057 (December 1990), LR 17:658 (July 1991), LR 22:22 (January 1996).

§2237. Exemption for Surface Impoundments Treating Hazardous Waste

A. Wastes that are otherwise prohibited from land disposal under this Chapter may be treated in a surface impoundment or series of impoundments provided that:

Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.2237 do not apply to Cytec, because Cytec does not treat hazardous wastes in a surface impoundment or series of impoundments, nor does Cytec intend to treat hazardous waste in a surface impoundment of a series of impoundments.

§2239. Procedures for Case-by-Case Extensions of an Effective Date

A. Any person who generates, treats, stores, or disposes of a hazardous waste may submit an application to the administrative authority for an extension of the effective date of any applicable prohibition established under this Chapter. The applicant must provide the following, and in each case the burden of proof will be on the applicant:

Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.2239 do not apply to Cytec, because Cytec has not submitted an application to the administrative authority for an extension of the effective date of any applicable prohibition established under this Chapter. If Cytec opts to submit an application to the administrative authority for an extension of the effective date of any applicable prohibition established under this Chapter, Cytec will comply with the applicable regulations.

§2241. Exemptions to Allow Land Disposal of a Prohibited Waste Except by Deep Well Injection

A. Any person seeking an exemption to allow land disposal except by deep well injection of a prohibited hazardous waste in a particular unit or units must submit a petition to the administrative authority that meets the following requirements:

Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.2241 do not apply to Cytec, because Cytec is not currently seeking an exemption to allow land disposal except by deep well injection of a prohibited hazardous waste in a particular unit or units. If Cytec opts to pursue an exemption to allow land disposal of a prohibited waste, Cytec will comply with the applicable requirements of LAC 33:V.2241.

§2243. Administrative Procedures for Exemptions under LAC 33:V.2241 and 2271 and Case-by-Case Extensions of an Effective Date under LAC 33:V.2239

Before making a final decision on the exemption or extension request, the administrative authority will provide the person requesting the exemption or extension and the public, through a newspaper notice in the official state journal and the local newspaper in the affected area, the cost of which will be charged to the person requesting the exemption or extension, the opportunity to submit written comments on the request on the conditions of the exemption or extension, allowing a 45-day comment period. The notices referred to in this Section will be provided in the local newspaper in three separate issues; however, the comment or notice period shall begin with the notice in the official state journal. The administrative authority will also, in response to a request or at his or her own discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning the exemption or extension request. The administrative authority will give public notice of the hearing at least 30 days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments.)

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 16:1057 (December 1990), LR 22:22 (January 1996).

§2245. Generators' Waste Analysis, Recordkeeping, and Notice Requirements

A. Except as specified in LAC 33:V.2213, if a generator's waste is listed in LAC 33:V.Chapter 49, the generator must test his or her waste or test an extract using Method 1311, the Toxicity Characteristic Leaching Procedure, described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110, or use knowledge of the waste to determine if the waste is prohibited from land disposal under this Chapter. Except as specified in LAC 33:V.2213, if a generator's waste exhibits one or more of the characteristics set out at LAC 33:V.4903, the generator must test an extract using Method 1311, the Toxicity Characteristic Leaching Procedure, described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110, or use knowledge of the waste, to determine if the waste is prohibited from land disposal under this Chapter. If the generator determines that his waste exhibits the characteristic of ignitability (D001) (and is not in the High TOC Ignitable Liquids Subcategory or is not treated by CMBST or RORGS of Table 3 of this Chapter), or the characteristic of corrosivity (D002), and the waste is prohibited under LAC 33:V.2221, and/or the characteristic of organic toxicity (D012-D043), and is prohibited under LAC 33:V.2221.E, the generator must determine the underlying hazardous constituents, as defined in LAC 33:V.2203, in the D001, D002, or D012-D043 waste.

Response: Cytec will test listed or characteristic waste or test an extract of the listed or characteristic waste using the approved methodology or use knowledge of the listed or characteristic waste to determine if the waste is prohibited from land disposal under this Chapter. Furthermore, Cytec will determine the underlying hazardous constituents, as defined in LAC 33:V.2203, in the D001, D002, or D012-D043

waste, as applicable.

B. If a generator determines that he or she is managing a waste prohibited under this Chapter, and the waste does not meet the applicable treatment standards set forth in LAC 33:V.Chapter 22.Subchapter A or the waste exceeds the applicable prohibition levels set forth in LAC 33:V.2213 or RCRA section 3004(d), with each shipment of waste the generator must notify the treatment or storage facility in writing. The notice must include the following information:

1. EPA Hazardous Waste Number, as specified in LAC 33:V.Chapter 49;

2. the waste constituents that the person treating the waste will monitor, if monitoring will not include all regulated constituents, for wastes F001-F005, F039, D001, D002, and D012-D043 and in LAC 33:V.2213 or RCRA section 3004(d). Generators must also include whether the waste is a nonwastewater or wastewater (as defined in LAC 33:V.2203) and indicate the subcategory of the waste (such as "D003 reactive cyanide"), if applicable;

3. the manifest number associated with the shipment of waste;

4. waste analysis data, where available; and

5. for hazardous debris, the contaminants subject to treatment as provided by LAC 33:V.2230 and the following statement: "This hazardous debris is subject to the alternative treatment standards of LAC 33:V.2230."

6. the date the waste is subject to the prohibitions.

Response: Cytec will notify the treatment or storage facility in writing with each shipment of prohibited waste that the waste either does not meet the applicable treatment standards set forth in LAC 33:V.Chapter 22.Subchapter A or the waste exceeds the applicable prohibition levels set forth in LAC 33:V.2213 or RCRA section 3004(d). The notice will include the required information, which currently consists of the EPA Hazardous Waste Number(s), the waste constituents to be monitored by the treatment facility, classification of the waste as nonwastewater or wastewater, identification of the waste subcategory (if applicable), the manifest number associated with the shipment of waste, waste analysis data (where available), identification of the hazardous debris contaminants subject to treatment including the following statement: "This hazardous debris is subject to the alternative treatment standards of LAC 33:V.2230.", and the date the waste is subject to the prohibitions.

C. If a generator determines that he or she is managing a waste prohibited under this Chapter and determines that the waste can be land disposed without further treatment, with each shipment of waste he or she must submit to the treatment, storage, or land disposal facility a notice and certification stating that the waste meets the applicable treatment standards set forth in LAC 33:V.Chapter 22.Subchapter A and the applicable prohibitions set forth in LAC 33:V.2213. Generators of hazardous debris that is excluded from the definition of hazardous waste under LAC 33:V.109 (i.e., debris that the administrative authority has determined does not contain hazardous waste), however, are not subject to these notification and certification requirements.

1. The notice must include the following information:

a. EPA Hazardous Waste Number;

b. the waste constituents that the person treating the waste will monitor, if monitoring will not include all regulated constituents, for wastes F001-F005, F039, D001, D002, and D012-D043 and in LAC 33:V.2213 or RCRA section 3004(d). Generators must also include whether the waste is a nonwastewater or wastewater (as defined in LAC 33:V.2203) and indicate the subcategory of the waste (such as "D003 reactive cyanide"), if applicable;

c. the manifest number associated with the shipment of waste; and

d. waste analysis data, where available.

Response: Cytec acknowledges the above citation. For those prohibited wastes that meet the applicable treatment standards set forth in LAC 33:V.Chapter 22.Subchapter A and the applicable prohibitions set forth in LAC 33:V.2213, Cytec will submit a notice and certification with each shipment of waste to the treatment, storage, or land disposal facility stating that the waste can be land disposed without further treatment. The notice will include the required information, which currently consists of the EPA Hazardous Waste Number(s), the waste constituents to be monitored by the treatment facility, classification of the waste as nonwastewater or wastewater, identification of the waste subcategory (if applicable), the manifest number associated with the shipment of waste, and waste analysis data (where available).

2. The certification must be signed by a duly authorized representative and must state the following:

"I certify under penalty of law that I have personally examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in LAC 33:V.Chapter 22.Subchapter A and all applicable prohibitions set forth in LAC 33:V.2213 or RCRA section 3004(d). I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false certification, including the possibility of fines and imprisonment."

Response: Cytec acknowledges the above citation.

D. If a generator's waste is subject to an exemption from a prohibition on the type of land disposal method utilized for the waste (such as, but not limited to, a case-by-case extension under LAC 33:V.2239), an exemption under LAC 33:V.2241 or 2271, or a nationwide capacity variance under LAC 33:V.Chapter 22.Subchapter A, with each shipment of waste he or she must submit a notice to the facility receiving the waste, stating that the waste is not prohibited from land disposal. The notice must include the following information:

1. EPA Hazardous Waste Number;

2. the waste constituents that the person treating the waste will monitor, if monitoring will not include all regulated constituents, for wastes F001-F005, F039, D001, D002, and D012-D043. Generators must also include whether the waste is a nonwastewater or wastewater (as defined in LAC 33:V.2203) and indicate the subcategory of the waste (such as "D003 reactive cyanide"), if applicable;

3. the manifest number associated with the shipment of waste;

4. waste analysis data, where available;

5. the date the waste is subject to the prohibitions; and

6. for hazardous debris when using the alternative treatment technologies provided by LAC 33:V.2230:

   a. the contaminants subject to treatment, as described in LAC 33:V.2230.B; and

   b. an indication that these contaminants are being treated to comply with LAC 33:V.2230; and

7. for hazardous debris when using the treatment standards for the contaminating waste(s) in LAC 33:V.2223, the requirements described in LAC 33:V.2245.D.1-6.

   Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.2245.D do not apply to Cytec, because Cytec does not currently have an exemption to allow land disposal except for on-site deep well injection. If Cytec opts to pursue an exemption to allow land disposal of a prohibited waste, Cytec will comply with the applicable requirements of LAC 33:V.2245.D.

E. If a generator is managing a prohibited waste in tanks, containers, or containment buildings regulated under LAC 33:V.1109.E and is treating such waste in such tanks, containers, or containment buildings to meet applicable treatment standards under LAC 33:V.Chapter 22.Subchapter A , the generator must develop and follow a written waste analysis plan that describes the procedures the generator will carry out to comply with the treatment standards. (Generators treating hazardous debris under the alternative treatment standards of LAC 33:V.Chapter 22. Table 8, however, are not subject to these waste analysis requirements.) The plan must be kept on-site in the generator's records, and the following requirements must be met:

1. The waste analysis plan must be based on a detailed chemical and physical analysis of a representative sample of the prohibited waste(s) being treated, and contain all information necessary to treat the waste(s) in accordance with the requirements of this Chapter, including the selected testing frequency.

2. Such plan must be filed with the administrative authority a minimum of 30 days prior to the treatment activity, with delivery verified.

3. Wastes shipped off-site pursuant to this Section must comply with the notification requirements of LAC 33:V.2245.C.

   Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.2245.E. do not apply to Cytec because Cytec is not currently managing a prohibited waste in less than 90 days tanks or containers to meet applicable treatment standards under LAC 33:V.Chapter 22.Subchapter A. If Cytec opts to begin managing a prohibited waste in less than 90 days tanks or containers to meet applicable treatment standards under LAC 33:V.Chapter 22.Subchapter A., Cytec will comply with the applicable requirements.

F. If a generator determines whether the waste is prohibited solely on the basis of his or her knowledge of the waste, all supporting data used to make this determination must be retained on-site in the generator's files. If a generator determines whether the waste is prohibited on the basis of tests of this waste or an extract developed using the test method described in LAC 33:V.Chapter 49.Appendix B,

all waste analysis data must be retained on-site in the generator's files.

Response: Cytec acknowledges the above citation. Cytec will retain on-site data used to support generator/process knowledge and waste analysis data used to determine if the waste is prohibited from land disposal.

G. If a generator determines that a prohibited waste that the generator is managing was excluded from the definition of hazardous or solid waste or exempted from regulation under LAC 33:V.Chapter 1, 39, or 41 subsequent to the point of generation, the generator must place a one-time notice stating such generation, subsequent exclusion from the definition of hazardous or solid waste or exemption from the regulation under LAC 33:V.Subpart 1, and the disposition of the waste, in the facility's file.

Response: Cytec acknowledges the above citation. If Cytec determines that a prohibited waste is excluded from the definition of hazardous or solid waste or exempted from regulation under LAC 33:V.Chapter 1, 39, or 41 subsequent to the point of generation,. Cytec will place a one-time notice in the facility's file documenting the subsequent exclusion from the definition of hazardous or solid waste or exemption from the regulation under LAC 33:V.Subpart 1, and the disposition of the waste.

H. Generators must retain on-site a copy of all notices, certifications, demonstrations, waste analysis data, and other documentation produced pursuant to this Section for at least five years from the date that the waste that is the subject of such documentation was last sent to on-site or off-site treatment, storage, or disposal. The five-year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the administrative authority. The requirements of this Paragraph apply to solid wastes even when the hazardous characteristic is removed prior to disposal, or when the waste is excluded from the definition of hazardous or solid waste under LAC 33:V.Chapters 1, 39, or 41, or exempted from regulation under LAC 33:V.Subpart 1, after generation.

Response: Cytec acknowledges the above citation. Cytec will retain on-site a copy of all notices, certifications, demonstrations, waste analysis data, and other documentation produced pursuant to this Section for at least five years from the date that the waste that is the subject of such documentation was last sent to on-site or off-site treatment, storage, or disposal.

I. If a generator is managing a lab pack that contains none of the wastes specified in LAC 33:V.Chapter 22.Table 6 and wishes to use the alternative treatment standards under LAC 33:V.2227.C, with each shipment of waste the generator must submit a notice to the treatment facility in accordance with LAC 33:V.2245.B, except that underlying hazardous constituents need not be determined. The generator must also comply with the requirements in LAC 33:V.2245.F and G, and must submit the following certification, which must be signed by a duly authorized representative:

"I certify under penalty of law that I have personally examined and am familiar with the waste, and that the lab pack does not contain any wastes identified in LAC 33:V.Chapter 22.Table 6. I am aware that there are significant penalties for submitting a false certification, including the possibility of fines and imprisonment."

Response: Cytec acknowledges the above citation. If Cytec manages a lab pack that contains none of the wastes specified in LAC 33:V.Chapter 22.Table 6 and wishes to

use the alternative treatment standards under LAC 33:V.2227.C, Cytec will comply with the applicable regulations.

J. Certification. Each waste minimization plan must be certified by a Louisiana Registered Professional Engineer (PE) .

Response: Cytec's waste minimization plan was certified by a Louisiana Registered Professional Engineer (PE) .

K. All large quantity generators shall develop and retain a waste minimization plan on-site. The plan shall be submitted to the administrative authority within 30 days of receipt of a request by the administrative authority. The plan shall include ongoing and proposed waste minimization projects and tentative beginning dates for proposed projects.

Response: Cytec acknowledges the above citation. Cytec has a waste minimization plan on-site that includes ongoing and proposed waste minimization projects and tentative beginning dates for proposed projects.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 16:1057 (December 1990), LR 17:658 (July 1991), LR 21:266 (March 1995), LR 21:267 (March 1995), LR 21:1334 (December 1995), LR 22:22 (January 1996), LR 22:820 (September 1996), LR 22:1130 (November 1996), LR 23:565 (May 1997).

§2246. Special Rules Regarding Wastes That Exhibit a Characteristic

A. The initial generator of a solid waste must determine each EPA Hazardous Waste Number (waste code) applicable to the waste in order to determine the applicable treatment standards under this Chapter. For purposes of LAC 33:V.Chapter 22, the waste will carry the waste code for any applicable listing under LAC 33:V.4901. In addition, the waste will carry one or more of the waste codes under LAC 33:V.4903, where the waste exhibits a characteristic, except in the case when the treatment standard for the waste code listed in LAC 33:V.4901 operates in lieu of the standard for the waste code under LAC 33:V.4903, as specified in LAC 33:V.2246.B. If the generator determines that his waste display, the characteristic of ignitability (D001) (and is not in the High TOC Ignitable Liquids Subcategory or is not treated by CMBST or RORGS) or the characteristic of corrosivity (D002) and is the waste prohibited under LAC 33:V.2221.D or that his waste displays the characteristic of toxicity (D012-D043) and is prohibited under LAC 33:V.2221.E, the generator must determine the underlying hazardous constituents (as defined in LAC 33:V.2203), in the D001, D002, or D012-D043 wastes.

Response: Cytec acknowledges the above citation. Cytec will determine the underlying hazardous constituents, as defined in LAC 33:V.2203, in the D001, D002, or D012-D043 wastes, as applicable.

B. Where a prohibited waste is both listed under LAC 33:V.4901 and exhibits a characteristic under LAC 33:V.4903, the treatment standard for the waste code listed in LAC 33:V.4901 will operate in lieu of the standard for the waste code under LAC 33:V.4903, provided that the treatment standard for the listed waste includes a treatment standard for the constituent that causes the waste to exhibit the characteristic. Otherwise, the waste must meet the treatment standards for all applicable listed and characteristic waste codes.

Response: Cytec acknowledges the above citation.

C. In addition to any applicable standards determined from the initial point of generation, no prohibited waste that exhibits a characteristic under LAC 33:V.4903 may be land disposed unless the waste complies with the treatment standards under LAC 33:V.Chapter 22.Table 2.

Response: Cytec acknowledges the above citation. Cytec has an exemption from a prohibition granted in response to a petition under LAC 33:V.2271 to allow injection of prohibited wastes with respect to those wastes and wells covered by the exemption.

D. Wastes that exhibit a characteristic are also subject to the requirements of LAC 33:V.2245, except that once the waste is no longer hazardous, a one-time notification and certification must be placed in the generator or treaters files and sent to the administrative authority. The notification and certification must be updated if the process or operation generating the waste changes and/or if the solid waste disposal facility receiving the waste changes. However, the generator or treater need only notify the administrative authority on an annual basis if such changes occur. In such circumstances, a notification and certification must be sent to the administrative authority by the end of the calendar year, but no later than December 31.

1. The notification must include the following information:

   a. name and address of the RCRA Subtitle D facility receiving the waste shipment; and

   b. a description of the waste as initially generated, including the applicable EPA Hazardous Waste Number(s) and, treatability group(s), and underlying hazardous constituents (as defined in LAC 33:V.2203) in D001 and D002 wastes prohibited under LAC 33:V.2221.D, or D012-D043 wastes under LAC 33:2221.E;

2. The certification must be signed by a duly authorized representative and must state the language specified in LAC 33:V.2247.C.
3. If treatment removes the characteristic but does not treat underlying hazardous constituents, then the certification found in LAC 33:2247.C.4 applies.

Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.2246.D. do not apply to Cytec at this time, because Cytec currently does not render any characteristic wastes nonhazardous prior to disposal to which these requirements would apply. If Cytec opts to render characteristic waste nonhazardous in the future, Cytec will comply with all applicable requirements.

E. Generators or treaters who first claim that hazardous debris is excluded from the definition of hazardous waste under LAC 33:V.109 (i.e., debris treated by an extraction or destruction technology provided by LAC 33:V.Chapter 22, Table 8, and debris that the administrative authority has determined does not contain hazardous waste) are subject to the following notification and certification requirements:

1. a one-time notification, including the following information, must be submitted to the administrative authority :

   a. the name and address of the RCRA Subtitle D facility receiving the treated debris;

   b. a description of the hazardous debris as initially generated, including the applicable EPA

Hazardous Waste Number(s); and

c. for debris excluded under LAC 33:V.109, the technology from LAC 33:V.Chapter 22, Table 8, used to treat the debris;

2. the notification must be updated if the debris is shipped to a different facility and, for debris excluded under LAC 33:V.109, if a different type of debris is treated or if a different technology is used to treat the debris;

3. for debris excluded under LAC 33:V.109, the owner or operator of the treatment facility must document and certify compliance with the treatment standards of LAC 33:V.Chapter 22, Table 8 as follows:

a. records must be kept of all inspections, evaluations, and analyses of treated debris that are made to determine compliance with the treatment standards;

b. records must be kept of any data or information the treater obtains during treatment of the debris that identifies key operating parameters of the treatment unit; and

c. for each shipment of treated debris, a certification of compliance with the treatment standards must be signed by an authorized representative and placed in the facility's files. The certification must state the following:

"I certify under penalty of law that the debris has been treated in accordance with the requirements of LAC 33:V.Chapter 22.Table 8. I am aware that there are significant penalties for making a false certification, including the possibility of fine and imprisonment."

Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.2246.E. do not apply to Cytec as this time, because Cytec does not currently claim that hazardous debris is excluded from the definition of hazardous waste. If Cytec opts to claim that hazardous debris is excluded from the definition, Cytec will comply with the applicable requirements of LAC 33:V.2246.E.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 16:1057 (December 1990), amended LR 17:658 (July 1991), LR 21:266 (March 1995), LR 22:22 (January 1996).

§2247. Owners or Operators of Treatment or Disposal Facilities: Testing, Waste Minimization, Recordkeeping, and Notice Requirements

A. Treatment facilities must test their wastes as frequently as specified in their waste analysis plans, as required by LAC 33:V.1519 or 4313. Such testing must be performed as provided in Subsection A.1—3 of this Section.

1. For wastes with treatment standards expressed as concentrations in the waste extract (LAC 33:V.2225), the owner or operator of the treatment facility must test the treatment residues, or an extract of such residues developed using the Toxicity Characteristic Leaching Procedure and the test methods in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference at LAC 33:V.110, to assure that the treatment residues or extract meet the applicable treatment standards.

2. For wastes prohibited under LAC 33:V.2213 or the act which are not subject to any treatment standards under LAC 33:V.Chapter 22.Subchapter A, the owner or operator of the treatment facility must test the treatment residues according to the generator testing requirements specified in LAC 33:V.2213 to ensure that the treatment residues comply with the applicable prohibitions.

3. For wastes with treatment standards expressed as concentrations in the waste under LAC 33:V.2229, the owner or operator of the treatment facility must test the treatment residues (not an extract of such residues) to ensure that the treatment residues meet the applicable treatment standards.

   Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.2247.A. do not apply to Cytec, because Cytec is the owner/ operator of injection wells that are operating under an exemption to allow land disposal of a prohibited waste by deep well injection in compliance with LAC 33:V.2271. Cytec is not the owner/operator of a facility treating prohibited waste to meet applicable treatment standards. If Cytec opts to begin treating prohibited waste to meet applicable treatment standards, Cytec will comply with applicable requirements.

B. A notice must be sent with each waste shipment to the land disposal facility which includes the following information, except that debris excluded from the definition of hazardous waste under LAC 33:V.109 (i.e., debris treated by an extraction or destruction technology provided by LAC 33:V.Chapter 22.Table 8 and debris that the administrative authority has determined does not contain hazardous waste) is subject to the notification and certification requirements of LAC 33:V.2247.H rather than these notification requirements:

   1. EPA Hazardous Waste Number;

   2. the waste constituents to be monitored, if monitoring will not include all regulated constituents, for wastes F001-F005, F039, D001, D002, and D012-D043 and in LAC 33:V.2213. Generators must also include whether the waste is a nonwastewater or wastewater (as defined in LAC 33:V.2203) and indicate the subcategory of the waste (such as D003 reactive cyanide), if applicable.

   3. the manifest number associated with the shipment of waste; and

   4. waste analysis data, where available.

   Response: Cytec acknowledges the above citation. Cytec will submit a notice with each shipment of waste to the land disposal facility with the required information, which currently consists of the EPA Hazardous Waste Number(s), the waste constituents to be monitored by the disposal facility, classification of the waste as nonwastewater or wastewater, identification of the waste subcategory (if applicable), the manifest number associated with the shipment of waste, and waste analysis data (where available).

C. The treatment facility must submit a certification with each shipment of waste or treatment residue of a prohibited waste to the land disposal facility stating that the waste or treatment residue has been treated in compliance with the applicable performance standards specified in LAC 33:V.Chapter 22.Subchapter A and the applicable prohibitions set forth in LAC 33:V.2213 or the act. Debris excluded from the definition of hazardous waste under LAC 33:V.109 (i.e., debris treated by an extraction or destruction technology provided by LAC 33:V.Chapter 22.Table 8 and debris that the administrative

authority has determined does not contain hazardous waste), however, is subject to the notification and certification requirements of LAC 33:V.2246.E rather than the certification requirements of LAC 33:V.2247.C.

1. For wastes with treatment standards expressed as concentrations in the waste extract or in the waste (LAC 33:V.2225 or 2229), or for wastes prohibited under LAC 33:V.2213 or the Act, which are not subject to any treatment standards under LAC 33:V.Chapter 22.Subchapter A, the certification must be signed by a duly authorized representative and must state the following:

   "I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in LAC 33:V.Chapter 22.Subchapter A, and all applicable prohibitions set forth in LAC 33:V.2213 without prohibited dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fines and imprisonment."

2. For wastes with treatment standards expressed as technologies (LAC 33:V.2227), the certification must be signed by a duly authorized representative and must state the following:

   I certify under penalty of law that the waste has been treated in accordance with the requirements of LAC 33:V.2227 of the Louisiana Hazardous Waste Regulations. I am aware that there are significant penalties for submitting a false certification, including the possibility of fines and imprisonment.

3. For wastes with treatment standards expressed as concentrations in the waste pursuant to LAC 33:V.2229, if compliance with the treatment standards in LAC 33:V.Chapter 22.Subchapter A is based in part or in whole on the analytical detection limit alternative specified in LAC 33:V.2229.C, the certification also must state the following:

   "I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by incineration in units operated in accordance with LAC 33:V.Chapter 31 or Chapter 43.Subchapter N, or by combustion in fuel substitution units operating in accordance with applicable technical requirements, and I have been unable to detect the nonwastewater organic constituents despite having used best good-faith efforts to analyze for such constituents. I am aware that there are significant penalties for submitting a false certification, including the possibility of fines and imprisonment."

4. For characteristic wastes D001, D002, and D012-D043 that are subject to the treatment standards in LAC 33:V.2223 (other than those expressed as a required method of treatment), that are reasonably expected to contain underlying hazardous constituents as defined in LAC 33:V.2203, that are treated on-site to remove the hazardous characteristic and are then sent off-site for treatment of underlying hazardous constituents, the certification must state the following:

   "I certify under penalty of law that the waste has been treated in accordance with the requirements of LAC 33:V.2223 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet universal treatment standards. I am aware that there are significant penalties for submitting a false certification,

including the possibility of fine and imprisonment."

Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.2247.C. do not apply to Cytec because Cytec does not currently treat prohibited wastes to meet applicable performance standards prior to shipment to the land disposal facility. If Cytec opts to begin treatment of prohibited waste, to meet applicable performance standards, Cytec will comply with the applicable requirements.

D. If the waste or treatment residue will be further managed at a different treatment or storage or disposal facility, the treatment, storage, or disposal facility sending the waste or treatment residue off-site must comply with the notice and certification requirements applicable to generators in LAC 33:V.2245.B and C.

Response: Cytec acknowledges the above citation.

E. Where the wastes are recyclable materials used in a manner constituting disposal and exempt in accordance with the provisions in LAC 33:V.4139.A.2 regarding treatment standards and prohibition levels, the owner or operator of a treatment facility (the recycler) is not required to notify the receiving facility, pursuant to LAC 33:V.2247.B. The recycling facility also must keep records of the name and location of each entity receiving the hazardous waste-derived product, the dates of each shipment, copies of analytical results, and the amount of waste-derived product in each shipment. With each shipment of such wastes, the owner or operator of the recycling facility must submit to the administrative authority the certification described in LAC 33:V.2247.C and a notice which includes the following information:

1. EPA Hazardous Waste Number;

2. the waste constituents to be monitored, if monitoring will not include all regulated constituents, for wastes F001-F005, F039, D001, D002, and D012-D043 and in LAC 33:V.2261 or RCRA section 3004(d). Generators must also include whether the waste is a nonwastewater or wastewater (as defined in LAC 33:V.2203) and indicate the subcategory of the waste (such as D003 reactive cyanide), if applicable;

3. waste analysis data, where available; and

4. the manifest number associated with the shipment of the waste.

Response: The requirements of LAC 33:V.2247.E. do not apply to Cytec because Cytec is not the owner/operator of a recycling facility.

F. Except where the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal pursuant to LAC 33:V.4139.A.2-4, the owner or operator of any land disposal facility disposing of any waste subject to prohibitions under this Chapter must do the following:

1. He must have copies of the notice and certification specified in either LAC 33:V.2247.B, C, D, or E and the certification specified in LAC 33:V.2245, if applicable.

2. He must test the waste or an extract of the waste or treatment residue developed using the test method described in this Chapter or using any methods required for generators under LAC

33:V.2213 to ensure that the wastes or treatment residues comply with the applicable treatment standards set forth in LAC 33:V.Chapter 22.Subchapter A and all applicable prohibitions set forth in LAC 33:V.2213 or the act. Such testing must be performed as frequently as specified in the facility's waste analysis plan, as required by LAC 33:V.1519 or 4313.

3. Where the owner or operator is disposing of any waste that is subject to the prohibitions under LAC 33:V.2215.G but not subject to the prohibitions set forth in LAC 33:V.2213, he or she must ensure that such waste is the subject of a valid certification according to the requirements of LAC 33:V.2235 prior to disposal in a landfill or surface impoundment unit and that such disposal is in accordance with the requirements of LAC 33:V.2239. The same requirement applies to any waste that is subject to the prohibitions under LAC 33:V.2215 or the prohibitions in LAC 33:V.2213.

   Response: The requirements of LAC 33:V.2247.F. do not apply to Cytec, because Cytec is the owner/ operator of injection wells that are operating under an exemption to allow land disposal of a prohibited waste by deep well injection in compliance with LAC 33:V.2271.

G. All treatment, storage, and disposal facilities shall develop and retain a waste minimization plan on-site. The plan shall be submitted to the administrative authority within 30 days of receipt of request. The plan shall include ongoing and proposed waste minimization projects and tentative beginning dates for proposed projects.

   Response: Cytec acknowledges the above citation. Cytec retains a waste minimization plan on-site include ongoing and proposed waste minimization projects and tentative beginning dates for proposed projects.

H. Certification. Each waste minimization plan must be certified by a Louisiana Registered Professional Engineer (PE) .

   Response: Cytec acknowledges the above citation. Cytec's waste minimization plan is certified by a Louisiana Registered Professional Engineer (PE).

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 15:378 (May 1989), amended LR 16:1057 (December 1990), LR 17:658 (July 1991), LR 21:266 (March 1995), LR 21:267 (March 1995), LR 21:1334 (December 1995), LR 22:22 (January 1996), LR 22:820 (September 1996), LR 23:566 (May 1997).

[Tables 2-9 are in the Appendix to Chapter 22]

Subchapter B. Hazardous Waste Injection Restrictions

§2249. Purpose, Scope, and Applicability

A. This Subchapter identifies hazardous wastes that are prohibited from disposal into Class I hazardous waste injection wells and defines those circumstances under which a waste, otherwise prohibited from injection, may be injected.

   Response: Cytec acknowledges the above citation.

B. The requirements of LAC 33:V.Chapter 22.Subchapter B apply to owners or operators of Class I hazardous waste injection wells used to inject hazardous waste.

Response: Cytec acknowledges the above citation.

C. Wastes otherwise prohibited from injection may continue to be injected:

1. if an extension from the effective date of a prohibition has been granted in accordance with LAC 33:V.2253 with respect to such wastes; or

2. if an exemption from a prohibition has been granted in response to a petition filed under LAC 33:V.2271 to allow injection of prohibited wastes with respect to those wastes and wells covered by the exemption; or

3. until November 8, 1990, if the waste has been determined to be contaminated soil or debris resulting from a response action taken under section 104 or 106 of CERCLA or a corrective action required under RCRA.

Response: Cytec acknowledges the above citation. Cytec has an exemption from a prohibition granted in response to a petition under LAC 33:V.2271 as allowed under LAC 33:V.2249.C.2.

D. Wastes that are hazardous only because they exhibit a hazardous characteristic, and which are otherwise prohibited under LAC 33:V.Chapter 22.Subchapter B are not prohibited from land disposal if the wastes:

1. are disposed into a nonhazardous injection well, defined under LAC 43:XVII.203.C, and do not exhibit any prohibited characteristic of hazardous waste specified in LAC 33:V.Chapter 49 at the point of injection at the well head; or

2. do not exhibit any prohibited characteristics of hazardous waste specified in LAC 33:V.4903 at the point of injection at the well head and are disposed into a hazardous injection well, defined under LAC 43:XVII.203.C, that receives only non-prohibited hazardous wastes.

Response: Cytec acknowledges the above citation. Cytec has an exemption from a prohibition granted in response to a petition under LAC 33:V.2271 as allowed under LAC 33:V.2249.C.2.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 22:22 (January 1996).

§2251. Dilution Prohibited as a Substitute for Treatment

The prohibition of LAC 33:V.2207 shall apply to owners or operators of Class I hazardous waste injection wells.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 22:22 (January 1996).

§2253. Procedures for Case-by-Case Extensions to an Effective Date

The owner or operator of a Class I hazardous waste injection well may submit an application to the administrative authority for an extension of the effective date of any applicable prohibition established under LAC 33:V.Chapter 22.Subchapter A according to the procedures of LAC 33:V.2239.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 22:22 (January 1996).

§2255. Waste Analysis

Generators of hazardous wastes that are disposed into Class I injection wells must comply with the applicable requirements of LAC 33:V.2245. Owners or operators of Class I hazardous waste injection wells must comply with the applicable requirements of LAC 33:V.2247.

Response: Cytec acknowledges the above citation. As a generator of hazardous wastes that are disposed of into Class I injection wells, Cytec will comply with the applicable requirements of LAC 33:V.2245. As an owner and operator of Class I hazardous waste injection wells, Cytec will comply with the applicable requirements of LAC 33:V.2247.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 22:22 (January 1996).

§2257. Waste-specific Prohibitions —Solvent Wastes

A. Effective August 8, 1988, the spent solvent wastes specified in LAC 33:V.Chapter 49 as EPA Hazardous Waste Numbers F001, F002, F003, F004, and F005 are prohibited from underground injection unless the solvent waste is a solvent-water mixture or solvent-containing sludge containing less than one percent total F001-F005 solvent constituents listed in LAC 33:V.2257.Table A.

B. Effective August 8, 1990, all spent F001-F005 solvent wastes containing less than one percent total F001-F005 solvent constituents listed in LAC 33:V.2257.Table A are prohibited from injection.

C. Effective July 20, 1991, all spent F002 and F005 wastes containing solvent constituents listed in LAC 33:V.2257.Table B are prohibited from underground injection.

D. The requirements of LAC 33:V.2257.A-C do not apply if:

   1. the wastes meet or are treated to meet the applicable treatment standards specified in LAC 33:V.Chapter 22.Subchapter A; or

   2. an exemption from a prohibition has been granted in response to a petition under LAC 33:V.2271; or

3. during the period of extension of the applicable effective date, if an extension has been granted under LAC 33:V.2253.

Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.2257 do not apply to Cytec, because Cytec has an exemption from a prohibition granted in response to a petition under LAC 33:V.2271 as allowed under LAC 33:V.2257.D.2.

Table A

Acetone
N-Butyl alcohol
Methylene chloride
Methylene chloride (from the pharmaceutical industry)
Carbon disulfide
Carbon tetrachloride
Chlorobenzene
Cresols and Cresylic acid
Cyclohexanone
1,2-Dichlorobenzene
Ethyl acetate
Ethyl benzene
Ethyl Ether
Isobutanol
Methanol
Methyl ethyl ketone
Methyl isobutyl ketone
Nitrobenzene
Pyridine
Tetrachloroethylene
Toluene
1,1,1-Trichloroethane
1,2,2-Trichloro-1,2,2-trifluoroethane
Trichloroethylene
Trichlorofluromethane
Xylene

Table B

Benzene
2-Ethoxyethanol
2-Nitropropane
1,1,2-Trichloroethane

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 22:22 (January 1996).

§2259. Waste-specific Prohibitions —Dioxin-containing Wastes

A. Effective August 8, 1988, the dioxin-containing wastes specified in LAC 33:V.Chapter 49 as EPA Hazardous Waste Numbers F020, F021, F022, F023, F026, F027, and F028 are prohibited from underground injection.

B. The requirements of LAC 33:V.2259.A do not apply if:

1. the wastes meet or are treated to meet the applicable treatment standards specified in LAC 33:V.Chapter 22.Subchapter A;

2. an exemption from a prohibition has been granted in response to a petition under LAC 33:V.2271; or

3. during the period of extension of the applicable effective date, if an extension has been granted under LAC 33:V.2253.

   Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.2259 do not apply to Cytec, because Cytec has an exemption from a prohibition granted in response to a petition under LAC 33:V.2271 as allowed under LAC 33:V.2259.B.2.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 22:22 (January 1996).

§2261. Waste-specific Prohibitions —California List Wastes

A. Effective August 8, 1988, liquid hazardous wastes listed in LAC 33:V.2261.B containing polychlorinated biphenyls at concentrations greater than or equal to 50 ppm or halogenated organic compounds at concentrations greater than or equal to 10,000 mg/kg are prohibited from underground injection.

B. Effective August 8, 1990, the following hazardous wastes are prohibited from underground injection:

   1. liquid hazardous wastes, including free liquids associated with any solid or sludge, containing free cyanides at concentrations greater than or equal to 1,000 mg/l; and

   2. liquid hazardous wastes, including free liquids associated with any solid or sludge, containing the following metals (or elements) or compounds of these metals (or elements) at concentrations greater than or equal to those specified below:

      Arsenic and/or compounds (as As) 500 mg/l
      Cadmium and/or compounds (as Cd) 100 mg/l
      Chromium (VI) and/or compounds (as Cr VI) 500 mg/l
      Lead and/or compounds (as Pb) 500 mg/l
      Mercury and/or compounds(as Hg) 20 mg/l
      Nickel and/or compounds (as Ni) 134 mg/l
      Selenium and/or compounds (as Se) 100 mg/l
      Thallium and/or compounds (as Tl) 130 mg/l

   3. liquid hazardous waste having a pH less than or equal to 2.0; and

   4. hazardous wastes containing halogenated organic compounds in total concentration less than 10,000 mg/kg but greater than or equal to 1,000 mg/kg.

C. The requirements of LAC 33:V.2261.A and B do not apply if:

   1. the wastes meet or are treated to meet the applicable treatment standards specified in LAC 33:V.Chapter 22.Subchapter A;

   2. an exemption from a prohibition has been granted in response to a petition under LAC 33:V.2271; or

   3. during the period of extension of the applicable effective date, if an extension has been granted under LAC 33:V.2253.

Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.2261 do not apply to Cytec, because Cytec has an exemption from a prohibition granted in response to a petition under LAC 33:V.2271 as allowed under LAC 33:V.2261.C.2.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 22:22 (January 1996).

§2263. Waste-specific Prohibitions —First Third Wastes

A. Effective January 1, 1991, the wastes specified in LAC 33:V.Chapter 49 as EPA Hazardous Waste Numbers F006, F008, F009, F019, K001, K004, K008, K015, K016 (at concentrations greater than or equal to one percent), K017, K018, K019, K020, K021 (nonwastewaters generated by the process described in the waste listing description and disposed of after August 17, 1988, and not generated in the course of treating wastewater forms of these wastes), K021 (wastewaters), K022, K024, K030, K031, K035, K036 (nonwastewaters generated by the process described in the waste listing description and disposed of after August 17, 1988, and not generated in the course of treating wastewater forms of these wastes), K037, K044, K045, nonexplosive K046 (nonwastewaters), K046 (reactive nonwastewaters and all wastewaters), K047, K048, K049, K050, K051, K052, K060 (nonwastewaters generated by the process described in the waste listing description and disposed of after August 17, 1988, and not generated in the course of treating wastewater forms of these wastes), K060 (wastewaters), K061, non-CaSO K069 (nonwastewaters generated by the process described in the waste listing description and disposed of after August 17, 1988, and not generated in the course of treating wastewater forms of these wastes), K069 (CaSO nonwastewaters and all wastewaters), K071, K073, K083, K084, K085, K086, K087, K099, K101 (high arsenic nonwastewaters), K102 (high arsenic nonwastewaters), K103, K106, P001, P004, P005, P010 , P011, P012 , P015, P016, P018, P020, P030, P036, P037, P039, P041, P048, P050, P058, P059, P063, P068, P069, P070, P071, P081, P082, P084, P087, P089, P092, P094, P097, P102, P105, P108, P110, P115, P120, P122, P123, U007, U009, U010, U012, U016, U018, U019, U022, U029, U031, U036, U037, U041, U043, U044, U046, U050, U051, U053, U061, U063, U064, U066, U067, U074, U077, U078, U086, U089, U103, U105, U108, U115, U122, U124, U129, U130, U133, U134, U137, U151, U154, U155, U157, U158, U159, U171, U177, U180, U185, U188, U192, U200, U209, U210, U211, U219, U220, U221, U223, U226, U227, U228, U237, U238, U248, and U249 are prohibited from underground injection.

B. Effective August 8, 1990, the wastes specified in LAC 33:V.Chapter 49 as EPA Hazardous Waste Numbers K062 and K104 are prohibited from underground injection.

C. Effective June 7, 1991, the wastes specified in LAC 33:V.Chapter 49 as EPA Hazardous Waste Numbers K016 (at concentrations less than one percent) are prohibited from underground injection.

D. Effective June 8, 1991, the waste specified in LAC 33:V.Chapter 49 as EPA Hazardous Waste Number F007 and the wastes specified in LAC 33:V.Chapter 49 as K011 (nonwastewaters) and K013 (nonwastewaters) are prohibited from underground injection.

E. Effective May 8, 1992, the wastes specified in LAC 33:V.Chapter 49 as EPA Hazardous Waste Numbers K011 (wastewaters), K013(wastewaters), and K014 are prohibited from underground injection.

F. The requirements of LAC 33:V.2263.A-E do not apply if:

1. the wastes meet or are treated to meet the applicable treatment standards specified in LAC

33:V.Chapter 22.Subchapter A;

2. an exemption from a prohibition has been granted in response to a petition under LAC 33:V.2271; or

3. during the period of extension of the applicable effective date, if an extension has been granted under LAC 33:V.2253.

Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.2263 do not apply to Cytec, because Cytec has an exemption from a prohibition granted in response to a petition under LAC 33:V.2271 as allowed under LAC 33:V.2263.F.2.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 22:22 (January 1996).

§2265. Waste-specific Prohibitions —Second Third Wastes

A. Effective January 1, 1991, the wastes specified in LAC 33:V.Chapter 49 as EPA Hazardous Waste Numbers F010, F011, F012, F024, K009 (nonwastewaters), K010, K025 (nonwastewaters generated by the process described in the waste listing description and disposed of after August 17, 1988, and not generated in the course of treating wastewater forms of these wastes), K025 (wastewaters), K027, K028, K029 (nonwastewaters), K038, K039, K040, K041, K042, K043, K095, K096, K097, K098, K105, K113, K114, K115, K116, P002, P003, P007, P008, P014, P026, P027, P029, P040, P043, P044, P049, P054, P057, P060, P062, P066, P067, P072, P074, P085, P098, P104, P106, P107, P111, P112, P113, P114, U002, U003, U005, U008, U011, U014, U015, U020, U021, U023, U025, U026, U028, U032, U035, U047, U049, U057, U058, U059, U060, U062, U070, U073, U080, U083, U092, U093, U094, U095, U097, U098, U099, U101, U106, U107, U109, U110, U111, U114, U116, U119, U127, U128, U131, U135, U138, U140, U142, U143, U144, U146, U147, U149, U150, U161, U162, U163, U164, U165, U168, U169, U170, U172, U173, U174, U176, U178, U179, U189, U193, U196, U203, U205, U206, U208, U213, U214, U215, U216, U217, U218, U235, U239, and U244 are prohibited from underground injection.

B. Effective June 8, 1991, the waste specified in LAC 33:V.Chapter 49 as EPA Hazardous Waste Number K009 (wastewaters) is prohibited from underground injection.

C. The requirements of LAC 33:V.2265.A and B do not apply if:

1. the wastes meet or are treated to meet the applicable treatment standards specified in LAC 33:V.Chapter 22.Subchapter A;

2. an exemption from a prohibition has been granted in response to a petition under LAC 33:V.2271; or

3. during the period of extension of the applicable effective date, if an extension has been granted under LAC 33:V.2253.

Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.2265 do not apply to Cytec, because Cytec has an exemption from a

prohibition granted in response to a petition under LAC 33:V.2271 as allowed under LAC 33:V.2265.C.2.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 22:22 (January 1996).

§2267. Waste-specific Prohibitions —Third Third Wastes

A. Effective January 1, 1991, the wastes specified in LAC 33:V.Chapter 49 as F039 (wastewaters), K002, K003, K005, K006, K007, K026, K032, K033, K034, K036 (wastewaters), K093, K094, K100 (wastewaters), K100 (generated by the process described in the waste listing description and disposed of after August 17, 1989, and not generated in the course of treating wastewater forms of these wastes), P006, P009, P013, P017, P022, P023, P024, P028, P031, P033, P034, P038 (wastewaters), P042, P045, P046, P047, P051, P056, P064, P065 (wastewaters), P073, P075, P076, P077, P078, P088, P093, P095, P096, P099, P101, P103, P116, P118, P119, U001, U004, U006, U017, U024, U027, U030, U033, U034, U038, U039, U042, U045, U048, U052, U055, U056, U068, U071, U072, U075, U076, U079, U081, U082, U084, U085, U087, U088, U090, U091, U096, U102, U112, U113, U117, U118, U120, U121, U123, U125, U126, U132, U136, U141, U145, U148, , U152, U153, U156, U160, U166, U167, U181, U182, U183, U184, U186, U187, U190, U191, U194, U197, U201, U202, U204, U207, U222, U225, U234, U236, U240, U243, U246, and U247 and the following wastes identified as hazardous based on a characteristic alone designated as D001, D004 (wastewaters), D005, D006, D008 (except for lead materials stored before secondary smelting), D009 (wastewaters), D010, D011, D012, D013, D014, D015, D016, and D017 and newly listed F025 are prohibited from underground injection.

B. Effective January 1, 1991, mixed radioactive/hazardous wastes specified in LAC 33:V.2215, 2217, or 2219 that are radioactive and hazardous wastes are prohibited from underground injection. This effective date does not apply to the wastes listed in LAC 33:V.2261 that were prohibited from underground injection on August 8, 1990.

C. Effective May 8, 1992, the wastes specified in LAC 33:V.Chapter 49 as EPA Hazardous Waste Numbers F039 (nonwastewaters), P038 (nonwastewaters), P065 (nonwastewaters), and the wastes identified as hazardous based on a characteristic alone, designated as D002 (wastewaters and nonwastewaters), D003 (wastewaters and nonwastewaters), D004(nonwastewaters), D007 (wastewaters and nonwastewaters), D008 (lead materials stored before secondary smelting), and D009 (nonwastewaters) are prohibited from underground injection. These effective dates do not apply to the wastes listed in LAC 33:V.2261 that were prohibited from underground injection on August 8, 1990.

D. The requirements of LAC 33:V.2267.A-C do not apply if:

1. the wastes meet or are treated to meet the applicable treatment standards specified in LAC 33:V.Chapter 22.Subchapter A;

2. an exemption from a prohibition has been granted in response to a petition under LAC 33:V.2271; or

3. during the period of extension of the applicable effective date, if an extension has been granted under LAC 33:V.2253.

Response: Cytec acknowledges the above citation. However, the requirements of

LAC 33:V.2267.D.2.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 22:22 (January 1996).

§2269. Waste-specific Prohibitions —Newly Listed Wastes

A. Effective September 20, 1995, the wastes specified as EPA Hazardous Waste Numbers F037, F038, K107, K108, K109, K110, K111, K112, K117, K118, K123, K124, K125, K126, K131, K132, K136, K141, K142, K143, K144, K145, K147, K148, K149, K150, K151, U328, U353, and U359 are prohibited from underground injection.

B. Effective September 19, 1995, the wastes specified as D001 (High TOC Subcategory as specified at LAC 33:V.Chapter 22.Table 2) and in LAC 33:V.4903.E as EPA Hazardous Waste Numbers D012, D013, D014, D015, D016 and D017 are prohibited from underground injection.

C. The requirements of LAC 33:V.2269.A do not apply if:

1. the wastes meet or are treated to meet the applicable treatment standards specified in LAC 33:V.Chapter 22.Subchapter A ;

2. an exemption from a prohibition has been granted in response to a petition under LAC 33:V.2271; or

3. during the period of extension of the applicable effective date, if an extension has been granted under LAC 33:V.2253.

Response: Cytec acknowledges the above citation. However, the requirements of LAC 33:V.2269 do not apply to Cytec, because Cytec has an exemption from a prohibition granted in response to a petition under LAC 33:V.2271 as allowed under LAC 33:V.2269.C.2.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 22:22 (January 1996).

§2271. Exemptions to Allow Land Disposal of a Prohibited Waste by Deep Well Injections

A. Any person seeking an exemption to allow land disposal by deep well injection of a prohibited hazardous waste in a particular injection well or wells must submit a petition to the administrative authority that does the following:

1. The petition must show that no other economically and environmentally reasonable alternative to disposal into an injection well is available. No exemption shall be granted to a generator for the land disposal of a waste stream if the waste stream can reasonably be eliminated or significantly reduced through waste reduction.

2. The petition must demonstrate to a reasonable degree of certainty that the waste shall be

permanently confined as required by R.S. 30:2193 (E) (2) (d) and 30:2193 (A). For the purposes of this Section, permanent confinement means that there will be no migration of hazardous constituents from the injection zone for as long as the wastes remain hazardous. Migration prohibited by this Section includes migration into the air, land or waters of the state where a discharge is not permitted.

Response: Cytec has submitted a petition and LDEQ has granted final approval of Cytec's Exemption Petition to Land Disposal Restrictions as documented in the correspondence in Appendix GG. Cytec's compliance with LAC 33:V.2271 is contained in the "Reasons For And Findings In Support Of Approval Of No-Migration Petition" also included in Appendix GG. Cytec's Exemption Petition to Land Disposal Restrictions was also upheld by the Nineteenth Judicial District Court.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 22:22 (January 1996), amended LR 23:299 (March 1997).

LAC 33:V.Chapter 23

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 23. Waste Piles

§2301. Applicability

A. The regulations in this Subpart apply to owners and operators of facilities that store or treat hazardous waste in piles, except as specified in LAC 33:V.105.D.

Response: The requirements of LAC 33:V.Chapter 23 do not apply to Cytec because Cytec does not currently store or treat hazardous waste in piles, nor does Cytec anticipate storing or treating hazardous waste in piles.

LAC 33:V.Chapter 25

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 25. Landfills

§2501. Applicability

The regulations in this Chapter apply to owners and operators of facilities that dispose of hazardous waste in landfills, except as specified in LAC 33:V.105.D.
AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984).

Response: The requirements of LAC 33:V.Chapter 25 do not apply to Cytec because Cytec does not currently dispose of hazardous waste in landfills, nor does Cytec anticipate disposing of hazardous waste in landfills.

LAC 33:V.Chapter 26

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality - Hazardous Waste

Chapter 26. Corrective Action Management Units and Temporary Units

§2601. Corrective Action Management Units (CAMU)

A. For the purpose of implementing remedies under LAC 33:V.3322 or RCRA section 3008(h), the administrative authority may designate an area at a facility as a corrective action management unit as defined in LAC 33:V.109, in accordance with the requirements of this Section. One or more CAMUs may be designated at a facility.

1. Placement of remediation wastes into or within a CAMU does not constitute land disposal of hazardous wastes.

2. Consolidation or placement of remediation wastes into or within a CAMU does not constitute creation of a unit subject to minimum technology requirements.

Response: The requirements of LAC 33:V.Chapter 26 do not apply to Cytec because Cytec is not currently managing any remediation wastes in Corrective Action Management Units or Temporary Units. If Cytec decides to manage remediation wastes in Corrective Action Management Units or Temporary Units in the future, Cytec will comply with the requirements of this chapter.

LAC 33:V.Chapter 27

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 27. Land Treatment

§2701. Applicability

The regulations in this Chapter apply to owners and operators of facilities that treat or dispose of hazardous waste in land treatment units, except as LAC 33:V.105.D provides otherwise.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

Response: The requirements of LAC 33:V.Chapter 27 do not apply to Cytec because Cytec does not currently treat or dispose of hazardous waste in land treatment units, nor does Cytec anticipate treating or disposing of hazardous waste in land treatment units.

LAC 33:V.Chapter 28

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 28. Drip Pads

§2801. Applicability

A. The requirements of this Chapter apply to owners or operators of facilities that use new or existing drip pads to convey treated wood drippage, precipitation, and/or surface water run-on to an associated collection system. Existing drip pads are those constructed before December 6, 1990 and those for which the owner or operator has a design and has entered into binding financial or other agreements for construction prior to December 6, 1990. All other drip pads are new drip pads.

Response: The requirements of LAC 33:V.Chapter 28 do not apply to Cytec because Cytec does not currently use or anticipate using new or existing drip pads to convey treated wood drippage, precipitation, and/or surface water run-on to an associated collection system.

LAC 33:V.Chapter 29

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 29. Surface Impoundments

§2901. Applicability

The regulations in this Subpart apply to owners and operators of facilities that use surface impoundments to treat, store, or dispose of hazardous waste except as LAC 33:V.105.D provides otherwise.
[Comment: All surface impoundments used to store hazardous waste, including short-term storage (90 days or less), must have a TSD permit.]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

Response: The requirements of LAC 33:V.Chapter 29 do not apply to Cytec because Cytec does not currently operate surface impoundments to treat, store, or dispose of hazardous waste, nor does Cytec anticipate operating surface impoundments to treat, store, or dispose of hazardous waste.

Cytec previously operated five (5) surface impoundments identified as:

- **Impoundment 1;**
- **Impoundment 3;**
- **North Waste Water Column Bottoms Backwash Pit;**
- **South Waste Water Column Bottoms Backwash Pit;**
- **Deep Well Backwash Pit.**

These five (5) surface impoundments have been closed and LDEQ has accepted the closure certifications. A copy of LDEQ's letters documenting acceptance of closure dated June 7, 1989, January 15, 1991,, and January 30, 1991 are included in Appendix C.

Cytec has completed eight (8) years of post closure monitoring of Impoundments 1 and 3. LDEQ issued Cytec a separate Post-Closure permit to address the post closure care requirements.

The North Waste Water Column Bottoms Backwash Pit, South Waste Water Column Bottoms Pit, and Deep Well Backwash Pit were "clean-closed" and no longer subject to regulation under RCRA. However, ground water monitoring is being performed in the area of these three (3) surface impoundments under a Ground Water Monitoring Agreement between Cytec and LDEQ. A copy of this agreement is included in Appendix D.

LAC 33:V.Chapter 30

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 30. Hazardous Waste Burned in Boilers and Industrial Furnaces

§3001. Applicability

A. The regulations of this Chapter apply to hazardous waste burned for energy or material recovery in a boiler or industrial furnace (as defined in LAC 33:V.109) irrespective of the purpose of burning or processing, except as provided by LAC 33:V.3001.B-D and F. In this Chapter, the term "burn" means burning for energy recovery or destruction, or processing for materials recovery or as an ingredient. The emissions standards of LAC 33:V.3009-3015 apply to facilities operating under interim status or under a hazardous waste permit as specified in LAC 33:V.3005 and 3007.

Response: The requirements of LAC 33:V.Chapter 30 do not apply to Cytec because Cytec does not currently burn hazardous waste for energy or material recovery in a boiler or industrial furnace, nor does Cytec anticipate burning hazardous waste for energy or material recovery in a boiler or industrial furnace.

LAC 33:V.Chapter 31

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 31. Incinerators

§3101. Purpose

To ensure necessary combustion and air pollution control to treat waste listed in the permit.
AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

Response: Cytec acknowledges the above citation.

§3103. General Requirements

A. The operator of a hazardous waste incinerator shall secure a permit from the Air Quality Division of the department.
[Comment: The permit application must also include the information required in LAC 33:V.3115.]

B. The operator shall provide the administrative authority with an acceptable set of performance standards, principally the composition of flue gases, provisions for shutdown, and an operations warranty from the operator certifying that the equipment and operation satisfy the purposes of the permit, as detailed in this Chapter.

C. Incoming waste monitoring is governed by LAC 33:V.1527.

D. An air monitoring system in the exhaust is required which will permit the required department evaluation.
AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

Response: Cytec acknowledges the above citation.

§3105. Applicability

A. These regulations apply to owners and operators of facilities that incinerate hazardous waste. All permit conditions, compliance orders, compliance schedules, and other requirements of the permit required shall be obtained pursuant to LAC 33:V.Subpart 1 and any other requirements pursuant to the regulations of the Louisiana Air Control Law (R.S. 30:2051 et seq.). The regulations in this Chapter apply to owners or operators of facilities that incinerate hazardous waste, except as LAC 33:V.1501.C provides otherwise.

Response: The requirements of LAC 33:V.Chapter 31 do not apply to Cytec because Cytec does not currently operate facilities to burn hazardous waste, nor does Cytec anticipate operating facilities to burn hazardous waste.

Cytec previously operated two (2) hazardous waste incinerators. In 1984, Cytec closed the two (2) hazardous waste incinerators and submitted the closure certification to LDEQ. A copy of LDEQ's letter dated November 29, 1984 acknowledging closure of the two (2) hazardous waste incinerators is included in Appendix NN.

LAC 33:V.Chapter 32

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality — Hazardous Waste

Chapter 32. Miscellaneous Units

§3201. Applicability

The requirements in this Chapter apply to owners and operators of facilities that treat, store, or dispose of hazardous waste in miscellaneous units, except as LAC 33:V.1501 provides otherwise.
AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 16:399 (May 1990).

Response: The requirements of LAC 33:V.Chapter 32 do not apply to Cytec because Cytec does not treat, store, or dispose of hazardous waste in miscellaneous units, nor does Cytec anticipate treating, storing, or disposing of hazardous waste in miscellaneous units.

LAC 33:V.Chapter 33

Title 33 ENVIRONMENTAL QUALITY

Part V. Hazardous Waste and Hazardous Materials

Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 33. Groundwater Protection

§3301. Applicability

A. Except as provided in LAC 33:V.3301.C, the regulations in this Chapter apply to owners or operators of facilities that treat, store or dispose of hazardous waste. The owner or operator must satisfy the requirements identified in LAC 33:V.3301.B for all wastes (or constituents thereof) contained in solid waste management units at the facility, regardless of the time at which waste was placed in such units.

B. All solid waste management units must comply with the requirements in LAC 33:V.3322. A surface impoundment, waste pile, and land treatment unit or landfill that receives hazardous waste after July 26, 1982 (hereinafter referred to as a "regulated unit") must comply with the requirements of LAC 33:V.3303 through LAC 33:V.3321 in lieu of LAC 33:V.3322 for purposes of detecting, characterizing and responding to releases to the uppermost aquifer. The financial responsibility requirements of LAC 33:V.3322 apply to regulated units.

C. The owner or operator's regulated unit or units are not subject to regulation for releases into the uppermost aquifer under this Chapter if:

1. the owner or operator is exempted under LAC 33:V.1501; or

2. he operates a unit which the administrative authority finds:

   a. is an engineered structure;

   b. does not receive or contain liquid waste or waste containing free liquids;

   c. is designed and operated to exclude liquid, precipitation, and other run-on and run-off;

   d. has both inner and outer layers of containment enclosing the waste;

   e. has a leak detection system built into each containment layer;

   f. the owner or operator will provide continuing operation and maintenance of these leak detection systems during the active life of the unit and the closure and post-closure care periods; and

   g. to a reasonable degree of certainty, will not allow hazardous constituents to migrate beyond the outer containment layer prior to the end of the post-closure care period.

3. the administrative authority finds, pursuant to LAC 33:V.2719.D, that the treatment zone of a land treatment unit that qualifies as a regulated unit does not contain levels of hazardous constituents that are above background levels of those constituents by an amount that is statistically significant, and if an unsaturated zone monitoring program meeting the requirements of LAC 33:V.2711 has

not shown a statistically significant increase in hazardous constituents below the treatment zone during the operating life of the unit. An exemption under LAC 33:V.3301.C can only relieve an owner or operator of responsibility to meet the requirements of this Chapter during the post-closure care period; or

4. the administrative authority finds that there is no potential for migration of liquid from a regulated unit to the uppermost aquifer during the active life of the regulated unit (including the closure period) and the post-closure care period specified under LAC 33:V.3521. This demonstration must be certified by a qualified geologist or geotechnical engineer. In order to provide an adequate margin of safety in the prediction of potential migration of liquid, the owner or operator must base any predictions made under LAC 33:V.3301.C on assumptions that maximize the rate of liquid migration;

5. he designs and operates a pile in compliance with LAC 33:V.2301.C.

D. The regulations under this Chapter apply during the active life of the regulated unit (including the closure period). After closure of the regulated unit, the regulations in this Subpart:

1. do not apply if all waste, waste residues, contaminated containment system components, and contaminated subsoils are removed or decontaminated at closure;

2. apply during the post-closure care period under LAC 33:V.Chapter 35, Subchapter B post-closure requirements if the owner or operator is conducting a detection monitoring program under LAC 33:V.3317;

3. apply during the compliance period under LAC 33:V.3313 if the owner or operator is conducting a compliance monitoring program under LAC 33:V.3319 or a corrective action program under LAC 33:V.3321.

E. Regulations in this Chapter may apply to miscellaneous units when necessary to comply with LAC 33:V.3203—3207.

Response: The current hazardous waste operating permit (LAD 008175390-OP-1), effective April 24, 1995, states in Permit Provision VII.:

VII. GROUND WATER PROTECTION

A. APPLICABILITY

The regulations of Louisiana Administrative Code (LAC), Title 33, Part V, Chapters 5, 15, 29, 33, 35 and the Louisiana Hazardous Waste Control Law, R.S., 30:2171 of the Environmental Quality Act, R.S. 30:2001 et seq., and the provisions of this section shall apply to ground water protection programs for facilities that are used to treat, store, and dispose of hazardous waste at Cytec Industries, located in Westwego, Louisiana. There are no active regulated units identified in this permit that require groundwater monitoring. Additionally, the permittee's closed waste management areas are not included in this permit. The Department is planning to issue a separate RCRA post-closure permit that will address groundwater monitoring requirements. In the event that a Corrective Action Program is required and upon approval of said

Corrective Action Program, the conditions of corrective action will be incorporated into the post-closure permit for areas having groundwater contamination resulting from the past operation of units subject to regulations under RCRA.

B. REQUIRED PROGRAMS

The permittee must continue to conduct detection monitoring from the existing systems established during interim status. All groundwater monitoring systems must be maintained, unless exempted from the program at a later date by the administrative authority.

Therefore, in accordance with the current hazardous waste operating permit (LAD 008175390-OP-1), effective April 24, 1995, the groundwater monitoring requirements are addressed in a separate post-closure permit issued by LDEQ.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:280 (April 1984), LR 10:496 (July 1984), LR 16:399 (May 1990), LR 18:1256 (November 1992), LR 20:1000 (September 1994).

LAC 33:V.Chapter 35

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 35. Closure and Post-closure

§3501. Applicability

A. Closure and post-closure procedures ensure protection of the public and ecology against leakage of hazardous wastes to the environment from closed facilities which formerly stored, treated, and/or disposed of such wastes.

Response: Cytec acknowledges the above citation.

B. Except as LAC 33:V.105.D provides otherwise, LAC 33:V.3503—3517 (which concern closure) apply to all hazardous waste facilities in operation or under construction as of the effective date of LAC 33:V.Subpart 1 and to all hazardous waste facilities permitted under LAC 33:V.Subpart 1, as applicable.

Response: Cytec operates hazardous waste facilities subject to the closure requirements of LAC 33:V.Chaper 35. The hazardous waste facilities are identified in the Closure Plan included in Appendix T.

C. LAC 33:V.3519, 3521, 3523, 3525, and 3527 (post-closure care) apply to the owners and operators of:

1. all hazardous waste disposal facilities;

Response: The post-closure requirements of LAC 33:V.3501.C are applicable to Surface Impoundments 1 and 3. Cytec has completed eight (8) years of post-closure monitoring of Surface Impoundments 1 and 3. LDEQ issued Cytec a separate Post-Closure permit to address the post-closure care requirements.

Cytec owns and operates Class I injection wells for the on-site disposal of hazardous waste. These injection wells are permitted by the Louisiana Department of Natural Resources (DNR). The closure of the injection wells are specifically regulated by DNR's Statewide Order No. 29-N-2. The closure and post-closure requirements for injection wells are specified in LAC43:XVII.209.L. and M., respectively.

2. piles, surface impoundments, or any facility from which the owner or operator intends to remove waste at closure, to the extent that these sections are made applicable to such facilities in LAC 33:V.2315 and 2911;

Response: Cytec previously operated five (5) surface impoundments, identified as:

-Impoundment 1;
-Impoundment 3;
-North Waste Water Column Bottoms Back Wash Pit;
-South Waste Water Column Bottoms Back Wash Pit; and
-Deep Well Back Wash Pit.

These five (5) surface impoundments have been closed and LDEQ has accepted the closure certifications. A copy of LDEQ's letters documenting acceptance of closure dated June 7, 1989, January 15, 1991 and January 30, 1991 are included in Appendix C.

Cytec has completed eight (8) years of post closure monitoring of Surface Impoundments 1 and 3. LDEQ issued Cytec a separate Post-Closure permit to address the post closure care requirements.

The North Waste Water Column Bottoms Back Wash Pit, South Waste Water Column Bottoms Back Wash Pit and Deep Well Back Wash Pit were "clean-closed" and are no longer subject to regulation under RCRA. However, groundwater water monitoring is being performed in the area of these three (3) closed surface impoundments under a Groundwater Monitoring Agreement between Cytec and LDEQ. A copy of this agreement in included in Appendix D.

3. tank systems that are required under LAC 33:V.1915 to meet the requirements for landfills; and

   Response: The requirements of LAC 33:V.3501.C.3. do not apply to Cytec because Cytec does not own or operate any hazardous waste tank systems that are required to meet the requirements for landfills.

4. containment buildings that are required under LAC 33:V.1803 to meet the requirements for landfills. AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq. HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 13:433 (August 1987), LR 13:651 (November 1987), LR 16:614 (July 1990), LR 18:1256 (November 1992), LR 21:266 (March 1995).

   Response: The requirements of LAC 33:V.3501.C.4. do not apply to Cytec because Cytec does not own or operate any containment buildings used to manage hazardous waste.

§3503. Notification of Intention to Close a Facility

A. At least 180 days prior to closure, the operator must notify the administrative authority of intention to close and supply the following information:

   1. date of planned closure;

   2. requested changes, if any, in the closure plan submitted with the permit application, which take advantage of new technology, unforeseen situations, and other requests which improve the safety of the closed facility;

   3. closure schedule and estimated costs of each phase of the closure plan; and

   4. request for release of closure funds in amounts and times as required by the closure schedules.

   Response: Cytec acknowledges the above citation. Cytec will notify the administrative authority at least 180 days prior to closure of the facility and will supply the required information, as appropriate.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq. HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

Subchapter A. Closure Requirements

§3505. Closure Procedures

A. If closure methods are unchanged from the plan approved with the permit, the administrative authority will acknowledge receipt of the notification to close and prepare appropriate documents which will be executed upon completion and acceptance of each phase of the closure plan so that funds can be released.

Response: Cytec acknowledges the above citation.

B. If the request is made to change the closure plan, the operator will submit revisions to the plan, supported by necessary scientific and engineering data to permit evaluation by the department, and the procedures established in permit process will be followed in evaluating and approving the requested changes.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq. HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

§3507. Closure Performance Standards

Pursuant to LAC 33:V.3509, the owner or operator must close his facility in a manner that:

A. minimizes the need for further maintenance; and

Response: Cytec will close the facility in manner that minimizes the need for further maintenance.

B. controls, minimizes, or eliminates, to the extent necessary to prevent threats to human health and the environment, post-closure escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to the groundwater, surface waters, or to the atmosphere;

Response: Cytec will close the facility in a manner that controls, minimizes, or eliminates, to the extent necessary to prevent threats to human health and the environment, post-closure escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to the groundwater, surface waters, or to the atmosphere.

C. complies with closure requirements of this Chapter, including, but not limited to, the requirements of LAC 33:V.1803, 1911, 1915, 2117, 2315, 2521, 2719, 2911, 3121, and 3203)3207.

Response: Cytec will close the facility in a manner that complies with closure requirements of this Chapter, including, but not limited to, the requirements of LAC

33:V.1911, 1915, and 2117, as applicable.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), LR 16:399 (May 1990), LR 18:1256 (November 1992), LR 21:266 (March 1995).

§3509. Closure Financial Responsibility

A. The operator shall submit, with the permit application, a closure plan which provides the estimated cost of closure, and post-closure monitoring including long-term monitoring devices, and the number of years of estimated operation before closure, and which is designed to minimize the need for future maintenance and to ensure against leakage or escape of hazardous waste.

Response: Cytec is herein submitting a closure plan which provides the estimated cost of closure, and the number of years of estimated operation before closure, and which is designed to minimize the need for future maintenance and to ensure against leakage or escape of hazardous waste. The Closure Plan is included in Appendix T. Post closure monitoring is addressed in a separate plan incorporated into the post closure permit issued by LDEQ.

B. The operator shall create a "closure fund" under the requirements in LAC 33:V.Chapters 35 and 37.

Response: Cytec provides financial assurance under the requirements of LAC 33:V.Chapters 35 and 37 by means of a financial test and corporate guarantee for closure in compliance with LAC 33:V.3707.F.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

§3511. Closure Plan; Amendment of Plan

A. Written Plan.

1. The owner or operator of a hazardous waste management facility must have a written closure plan. In addition, certain surface impoundments and waste piles from which the owner or operator intends to remove or decontaminate the hazardous waste at partial or final closure are required by LAC 33:V.2911.D and 2315.C to have contingent closure plans. The plan must be submitted with the permit application, in accordance with LAC 33:V.517.M and approved by the administrative authority as part of the permit issuance procedures under LAC 33:V.Chapters 3 and 7. In accordance with LAC 33:V.311, the approved closure plan will become a condition of any hazardous waste permit.

Response: Cytec has a written closure plan which is included in Appendix T of this permit renewal application. Cytec does not own or operate any hazardous waste units that require contingent closure plans. Cytec acknowledges that the approved closure plan will be a condition of the hazardous waste permit.

2. The administrative authority's approval of the plan must ensure that the approved closure plan is

consistent with LAC 33:V.3507, 3511, 3517, and the applicable requirements of LAC 33:V.Chapter 33, 1803, 1911, 1915, 2117, 2315, 2521, 2719, 2911, 3121, and 3203. Until final closure is completed and certified in accordance with LAC 33:V.3517, a copy of the approved plan and all approved revisions must be furnished to the administrative authority upon request, including request by mail.

Response: Cytec acknowledges the above citation. Cytec will furnish a copy of the approved plan and all approved revisions to the administrative authority upon request, as required by this regulation.

B. Content of Plan. The plan must identify steps necessary to perform partial and/or final closure of the facility at any point during its active life. The closure plan must include, at least:

1. a description of how each hazardous waste management unit at the facility will be closed in accordance with LAC 33:V.3507;

   Response: The Closure Plan identifies steps necessary to perform partial and/or final closure of the facility at any point during its active life. The Closure Plan includes a description of how each hazardous waste management unit at the facility will be closed in accordance with LAC 33:V.3507.

2. a description of how final closure of the facility will be conducted in accordance with LAC 33:V.3507. The description must identify the maximum extent of the operations which will be unclosed during the active life of the facility; and

   Response: The Closure Plan includes a description of how final closure of the facility will be conducted and identifies the maximum extent of the operations which will be unclosed during the active life of the facility.

3. an estimate of the maximum inventory of hazardous wastes ever on-site over the active life of the facility and a detailed description of the methods to be used during partial closures and final closure, including, but not limited to, methods for removing, transporting, treating, storing, or disposing of all hazardous wastes, and identification of the type(s) of the off-site hazardous waste management units to be used, if applicable; and

   Response: The Closure Plan includes an estimate of the maximum inventory of hazardous wastes ever on-site over the active life of the facility and a detailed description of the methods to be used during partial closures and final closure, including, but not limited to, methods for removing, transporting, treating, storing, or disposing of all hazardous wastes, and identification of the type(s) of the off-site hazardous waste management units to be used, if applicable.

4. a detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils during partial and final closure, including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination required to satisfy the closure performance standard;

   Response: The Closure Plan includes a detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated

containment system components, equipment, structures, and soils during partial and final closure, including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination required to satisfy the closure performance standard.

5. a detailed description of other activities necessary during the closure period to ensure that all partial closures and final closure satisfy the closure performance standards, including, but not limited to, ground water monitoring, leachate collection, and run-on and run-off control;

   Response: The Closure Plan includes a detailed description of other activities necessary during the closure period to ensure that all partial closures and final closure satisfy the closure performance standards, including, but not limited to, ground water monitoring, leachate collection, and run-on and run-off control, as applicable.

6. a schedule for closure of each hazardous waste management unit and for final closure of the facility. The schedule must include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure activities which will allow tracking of the progress of partial and final closure (for example, in the case of a landfill, unit estimates of the time required to treat or dispose of all hazardous waste inventory and of the time required to place a final cover must be included); and

   Response: The Closure Plan includes a schedule for closure of each hazardous waste management unit and for final closure of the facility.

7. for facilities that use trust funds to establish financial assurance LAC 33:V.3707 and 3711 and that are expected to close prior to the expiration of the permit, an estimate of the expected year of final closure.

   Response: The requirement of LAC 33:V.3511.B.7 does not apply to Cytec because Cytec does not use trust funds to establish financial assurance nor is Cytec expected to close prior to the expiration of the permit.

C. Amendment of Plan. The owner or operator must submit a written notification of or request for a permit modification to authorize a change in operating plans, facility design, or the approved closure plan in accordance with the applicable procedures in LAC 33:V.Chapters 3 and 7. The written notification or request must include a copy of the amended closure plan for review or approval by the administrative authority.

   Response: Cytec acknowledges the above citation.

1. The owner or operator may submit a written notification or request to the administrative authority for a permit modification to amend the closure plan at any time prior to the notification of partial or final closure of the facility.

   Response: Cytec acknowledges the above citation.

2. The owner or operator must submit a written notification of or request for a permit modification to authorize a change in the approved closure plan whenever:

a. changes in operating plans or facility design affect the closure plan; or

b. there is a change in the expected year of closure, if applicable; or

c. in conducting partial or final closure activities, unexpected events require a modification of the approved closure plan.

Response: Cytec acknowledges the above citation.

3. The owner or operator must submit a written request for a permit modification including a copy of the amended closure plan for approval at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the owner or operator must request a permit modification no later than 30 days after the unexpected event. An owner or operator of a surface impoundment or waste pile that intends to remove all hazardous waste at closure and is not otherwise required to prepare a contingent closure plan under LAC 33:V.2911.D or 2315.D must submit an amended closure plan to the administrative authority no later than 60 days from the date that the owner or operator or administrative authority determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of LAC 33:V.2521, or no later than 30 days from that date if the determination is made during partial closure or final closure. The administrative authority will approve, disapprove, or modify this amended plan in accordance with the procedures in LAC 33:V.Chapters 3 and 7. In accordance with LAC 33:V.311, the approved closure plan will become a condition of any hazardous waste permit issued.

Response: Cytec acknowledges the above citation.

4. The administrative authority may request modifications to the plan under the conditions described in LAC 33:V.3511.A.2. The owner or operator must submit the modified plan within 60 days of the administrative authority's request, or within 30 days if the change in facility conditions occurs during partial or final closure. Any modifications requested by the administrative authority will be approved in LAC 33:V.Chapters 3 and 7.

Response: Cytec acknowledges the above citation.

D. Notification of Partial Closure and Final Closure

1. The owner or operator must notify the administrative authority in writing at least 60 days prior to the date on which he expects to begin closure of a surface impoundment, waste pile, land treatment or landfill unit, or final closure of the facility with such a unit. The owner or operator must notify the administrative authority in writing at least 45 days prior to the date on which he expects to begin final closure of a facility with only treatment or storage tanks, container storage, or incinerator units to be closed. The owner or operator must notify the administrative authority in writing at least 45 days prior to the date on which he expects to begin partial or final closure of a boiler or industrial furnace, whichever is earlier.

Response: Cytec acknowledges the above citation.

2. The date when he or she "expects to begin closure" must be one of the following:

a. No later than 30 days after the date on which any hazardous waste management unit receives

the known final volume of hazardous wastes or, if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous wastes. If the owner or operator of a hazardous waste management unit can demonstrate to the administrative authority that the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes and he or she has taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, the administrative authority may approve an extension to this one-year limit.

b. For units meeting the requirements of LAC 33:V.3513.D, no later than 30 days after the date on which the hazardous waste management unit receives the known final volume of non-hazardous wastes, or if there is a reasonable possibility that the hazardous waste management unit will receive additional non-hazardous wastes, no later than one year after the date on which the unit received the most recent volume of non-hazardous wastes. If the owner or operator can demonstrate to the administrative authority that the hazardous waste management unit has the capacity to receive additional non-hazardous wastes and he or she has taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements, the administrative authority may approve an extension to this one-year limit.

Response: Cytec acknowledges the above citation.

3. If the facility's permit is terminated, or if the facility is otherwise ordered, by judicial decree or final order under R.S. 30:2025, to cease receiving hazardous wastes or to close, then the requirements of this Paragraph do not apply. However, the owner or operator must close the facility in accordance with the deadlines established in LAC 33:V.3513.

Response: Cytec acknowledges the above citation.

E. Removal of Wastes and Decontamination or Dismantling of Equipment. Nothing in this Section shall preclude the owner or operator from removing hazardous wastes and decontaminating or dismantling equipment in accordance with the approved partial or final closure plan at any time before or after notification of partial or final closure.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), LR 14:791 (November 1988), LR 16:399 (May 1990), LR 16:614 (July 1990), LR 17:478 (May 1991), LR 18:1256 (November 1992), LR 18:1375 (December 1992), LR 21:266 (March 1995).

§3513. Closure; Time Allowed for Closure

A. Within 90 days after receiving the final volume of hazardous wastes, or the final volume of non-hazardous wastes if the owner or operator receives administrative authority allowance pursuant to LAC 33:V.3513.D and complies with all applicable requirements in LAC 33:V.3513.D and E, at a hazardous waste management unit or facility, the owner or operator must treat, remove from the facility or unit, or dispose of on-site, all hazardous wastes in accordance with the approved closure plan. The administrative authority may approve a longer period if the owner or operator complies with all applicable requirements for requesting a modification to the permit and demonstrates that:

1. the activities required to comply with this Paragraph will, of necessity, take longer than 90 days to complete, or

2. the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes if the owner or operator receives administrative authority allowance pursuant to LAC 33:V.3513.D and complies with LAC 33:V.3513.D and E, and there is a reasonable likelihood that he or another person will recommence operation of the site, as provided in LAC 33:V.321; and

3. closure of the facility would be incompatible with continued operation of the site; and

4. the owner or operator has taken and will continue to take all steps to prevent threats to human health and the environment.

Response: Cytec acknowledges the above citation. Cytec will treat, remove from the facility or unit, or dispose of on-site, all hazardous wastes in accordance with the approved closure plan within the time frame and provisions specified in LAC 33:V.3513.A.

B. The owner or operator must complete partial and final closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of hazardous wastes, or the final volume of non-hazardous wastes if the owner or operator complies with all applicable requirements in LAC 33:V.3513.D and E, at the hazardous waste management unit or facility. The administrative authority may approve an extension to the closure period if the owner or operator complies with all applicable requirements for requesting a permit modification and demonstrates that:

1. the partial or final closure activities will, of necessity, take longer than 180 days to complete; or

2. the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes or has the capacity to receive non-hazardous wastes if the owner or operator complies with LAC 33:V.3513.D and E; and

3. there is a reasonable likelihood that he or another person will recommence operation of the hazardous waste management unit within one year, as provided in LAC 33:V.321; and

4. closure of the facility would be incompatible with continued operation of the site; and

5. he has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed, but inactive hazardous waste management unit including compliance with all applicable permit conditions.

Response: Cytec acknowledges the above citation. Cytec will complete partial and final closure activities in accordance with the approved closure plan and within the timeframe and provisions specified in LAC 33:V.3513.B.

C. The demonstrations referred to in LAC 33:V.3513.A and B must be made as follows:

1. the demonstrations in Subsection A must be made at least 30 days prior to the expiration of the 90-day period in Subsection A; and

2. the demonstration in LAC 33:V.3513.B must be made at least 30 days prior to the expiration of the

180-day period in LAC 33:V.3513.B, unless the owner or operator is otherwise subject to the deadlines in LAC 33:V.3513.D.

Response: Cytec acknowledges the above citation.

D. The administrative authority may allow an owner or operator to receive only non-hazardous wastes in a landfill, land treatment, or surface impoundment unit after the final receipt of hazardous wastes at that unit if the following conditions are met.

1. The owner or operator requests a permit modification in compliance with all applicable requirements in LAC 33:V.Chapters 1, 3, 5, 7, 27, 31, and 43, and in the permit modification request demonstrates that:

   a. the unit has the existing design capacity as indicated on the Part I application to receive non-hazardous wastes;

   b. there is a reasonable likelihood that the owner or operator or another person will receive non-hazardous wastes in the unit within one year after the final receipt of hazardous wastes;

   c. the non-hazardous wastes will not be incompatible with any remaining wastes in the unit, or with the facility design and operating requirements of the unit or facility under LAC 33:V.Chapters 9, 15, 17, 19, 21, 23, 25, 27, 28, 29, 31, 32, 33, 35, and 37;

   d. closure of the hazardous waste management unit would be incompatible with continued operation of the unit or facility; and e. the owner or operator is operating and will continue to operate in compliance with all applicable permit requirements.

2. The request to modify the permit includes an amended waste analysis plan, groundwater monitoring and response program, human exposure assessment required under LAC 33:V.503.A, and closure and post-closure plans, and updated cost estimates and demonstrations of financial assurance for closure and post-closure care as necessary and appropriate to reflect any changes due to the presence of hazardous constituents in the non-hazardous wastes and changes in closure activities, including the expected year of closure if applicable under LAC 33:V.3511.B.7, as a result of the receipt of non-hazardous wastes following the final receipt of hazardous wastes.

3. The request to modify the permit includes revisions, as necessary and appropriate, to affected conditions of the permit to account for the receipt of non-hazardous wastes following receipt of the final volume of hazardous wastes.

4. The request to modify the permit and the demonstrations referred to in LAC 33:V.3513.D.1 and 2 are submitted to the administrative authority no later than 120 days prior to the date on which the owner or operator of the facility receives the known final volume of hazardous wastes at the unit, or no later than 90 days after the effective date of this rule, whichever is later.

Response: The requirements of LAC 33:V.3513.D. do not apply to Cytec because Cytec does not currently use landfills, land treatment, or surface impoundments to manage hazardous wastes, nor does Cytec anticipate using landfills, land treatment, or surface impoundments to manage hazardous wastes.

E. In addition to the requirements in LAC 33:V.3513.D, an owner or operator of a hazardous waste surface impoundment that is not in compliance with the liner and leachate collection system requirements in

LAC 33:V.Chapter 29 must do the following.

1. Submit with the request to modify the permit:

   a. a contingent corrective measures plan, unless a corrective action plan has already been submitted under LAC 33:V.3319; and

   b. a plan for removing hazardous wastes in compliance with LAC 33:V.3513.E.2.

2. Remove all hazardous wastes from the unit by removing all hazardous liquids and removing all hazardous sludges to the extent practicable without impairing the integrity of the liner(s), if any.

3. Removal of hazardous wastes must be completed no later than 90 days after the final receipt of hazardous wastes. The administrative authority may approve an extension to this deadline if the owner or operator demonstrates that the removal of hazardous wastes will, of necessity, take longer than the allotted period to complete and that an extension will not pose a threat to human health and the environment.

4. If a release that is a statistically significant increase (or decrease in the case of pH) over background values for detection monitoring parameters or constituents specified in the permit or that exceeds the facility's groundwater protection standard at the point of compliance, if applicable, is detected in accordance with the requirements in LAC 33:V.Chapter 33, the owner or operator of the unit:

   a. must implement corrective measures in accordance with the approved contingent corrective measures plan required by LAC 33:V.3513.E.1 no later than one year after detection of the release or approval of the contingent corrective measures plan, whichever is later;

   b. may continue to receive wastes at the unit following detection of the release only if the approved corrective measures plan includes a demonstration that continued receipt of wastes will not impede corrective action; and

   c. may be required by the administrative authority to implement corrective measures in less than one year or to cease the receipt of wastes until corrective measures have been implemented if necessary to protect human health and the environment.

5. During the period of corrective action, the owner or operator shall provide semiannual reports to the administrative authority that describe the progress of the corrective action program, compile all groundwater monitoring data, and evaluate the effect of the continued receipt of non-hazardous wastes on the effectiveness of the corrective action.

6. The administrative authority may require the owner or operator to commence closure of the unit if the owner or operator fails to implement corrective action measures in accordance with the approved contingent corrective measures plan within one year as required in LAC 33:V.3513.E.4, or fails to make substantial progress in implementing corrective action and achieving the facility's groundwater protection standard or background levels if the facility has not yet established a groundwater protection standard.

7. If the owner or operator fails to implement corrective measures as required in LAC 33:V.3513.E.4, or if the administrative authority determines that substantial progress has not been made pursuant to LAC 33:V.3513.E.6, he or she shall do the following:

a. The administrative authority will notify the owner or operator in writing that the owner or operator must begin closure in accordance with the deadlines in LAC 33:V.3513.A and B, and provide a detailed statement of reasons for this determination.

b. The administrative authority will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the decision no later than 20 days after the date of the notice.

c. If the administrative authority receives no written comments, the decision will become final five days after the close of the comment period. The administrative authority will notify the owner or operator that the decision is final, and that a revised closure plan, if necessary, must be submitted within 15 days of the final notice, and that closure must begin in accordance with the deadlines in LAC 33:V.3513.A and B.

d. If the administrative authority receives written comments on the decision, he or she shall make a final decision within 30 days after the end of the comment period, and provide the owner or operator in writing and the public through a newspaper notice with a detailed statement of reasons for the final decision. If the administrative authority determines that substantial progress has not been made, closure must be initiated in accordance with the deadlines in LAC 33:V.3513.A and B.

e. The final determinations made by the administrative authority under LAC 33:V.3513.E.7.c and d are not subject to administrative appeal.

Response: The requirements of LAC 33:V.3513.E. do not apply to Cytec because Cytec does not currently use hazardous waste surface impoundments, nor does Cytec anticipate using hazardous waste surface impoundments.

Cytec previously operated five (5) surface impoundments, identified as:

-Impoundment 1;
-Impoundment 3;
-North Waste Water Column Bottoms Back Wash Pit;
-South Waste Water Column Bottoms Back Wash Pit; and
-Deep Well Back Wash Pit.

These five (5) surface impoundments have been closed and LDEQ has accepted the closure certifications. A copy of LDEQ's letters documenting acceptance of closure dated June 7, 1989, January 15, 1991 and January 30, 1991 are included in Appendix C.

Cytec has completed eight (8) years of post closure monitoring of Surface Impoundments 1 and 3. LDEQ issued Cytec a separate Post-Closure permit to address post closure care requirements.

The North Waste Water Column Bottoms Back Wash Pit, South Waste Water Column Bottoms Back Wash Pit and Deep Well Back Wash Pit were "clean-closed" and are no longer subject to regulation under RCRA. However, groundwater water monitoring is being performed in the area of these three (3) closed surface impoundments under a Groundwater Monitoring Agreement between Cytec and

LDEQ. A copy of this agreement in included in Appendix D.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), LR 17:478 (May 1991), LR 20:1000 (September 1994).

§3515. Disposal or Decontamination of Equipment, Structures and Soils

During the partial and final closure periods, all contaminated equipment, structures, and soils must be properly disposed of or decontaminated, unless otherwise specified in LAC 33:V.1915, 2315, 2521, 2719, and 2911, or under the authority of LAC 33:V.3203 and 3207. By removing any hazardous waste or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of LAC 33:V.Chapter 11.

Response: Cytec acknowledges the above citation. During the partial and final closure periods Cytec will properly dispose of or decontaminate all contaminated equipment, structures, and soils, unless otherwise specified in LAC 33:V.1915.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987), LR 16:399 (May 1990), LR 16:614 (July 1990).

§3517. Certification of Closure

A. Within 60 days of completion of closure of each hazardous waste surface impoundment, waste pile, land treatment, and landfill unit, and within 60 days of the completion of final closure, the owner or operator must submit to the administrative authority, by registered mail, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification must be signed by the owner or operator and by an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the administrative authority upon request until he releases the owner or operator from the financial assurance requirements for closure under LAC 33:V.3707.

Response: Cytec (formerly American Cyanamid Company) submitted the Certification of Closure for Surface Impoundments 1 and 3 to LDEQ on April 28, 1989 and it was again submitted as an attachment to the post closure permit application.

Cytec does not currently operate any hazardous waste surface impoundments, waste piles, land treatment or landfill units.

Cytec will submit a certification signed by the owner or operator and an independent registered professional engineer with supporting documentation within 60 days of completion of final closure of the facility.

B. Survey Plat. No later than the submission of the certification of closure of each hazardous waste disposal unit, the owner or operator must submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the administrative authority, a survey plat indicating the location and dimensions of landfills cells or other hazardous waste disposal units with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a professional land surveyor. The plat filed with the local zoning authority, or the authority with jurisdiction over local land use, must contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbance of the hazardous waste disposal unit in accordance with the applicable Chapter 35 regulations.

Response: Cytec (formerly American Cyanamid Company) submitted the required information to LDEQ and other appropriate agencies on June 14, 1989 and it was again submitted as an attachment to the post-closure permit application. Cytec does not currently operate any hazardous waste disposal units on site that are subject to LAC 33:V.3517.B.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:433 (August 1987).

Subchapter B. Post-closure Requirements

§3519. Post-closure Procedures

A. Any proposed transfer of ownership of the property shall be reported to the administrative authority at least 60 days prior to execution of such sale.

B. The administrative authority must approve any new owner. Criteria for approval includes agreement to land use restrictions necessary to protect public health and financial responsibility covering liability due to change in land use.

C. The administrative authority will conduct an annual evaluation of the site for the period of post-closure.

Response: The current hazardous waste operating permit (LAD 008175390-OP-1), effective April 24, 1995, states in Permit Provision VII.:

VII. Ground Water Protection

A. Applicability

The regulations of Louisiana Administrative Code (LAC), Title 33, Part V, Chapters 5, 15, 29, 33, 35 and the Louisiana Hazardous Waste Control Law, R.S., 30:2171 of the Environmental Quality Act, R.S. 30:2001 et seq., and the provisions of this section shall apply to ground water protection programs for facilities that are used to treat, stored, and dispose of hazardous waste at Cytec Industries, located in Westwego, Louisiana. There are no active regulated units identified in this permit that require groundwater monitoring. Additionally, the permittee's closed waste management areas are not included in this permit. The Department is planning to issue a separate RCRA

post-closure permit that will address groundwater monitoring requirements. In the event that a Corrective Action Program is required and upon approval of said Corrective Action Program, the conditions of corrective action will be incorporated into the post-closure permit for areas having groundwater contamination resulting from the past operation of units subject to regulations under RCRA.

B. Required Programs

The permittee must continue to conduct detection monitoring from the existing systems established during interim status. All groundwater monitoring systems must be maintained, unless exempted from the program at a later date by the administrative authority.

Therefore, in accordance with the current hazardous waste operating permit (LAD 008175390-OP-1), effective on April 24, 1995, the post-closure procedures are addressed in a separate post-closure permit issued by LDEQ.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

LAC 33:V.Chapter 37

Title 33 ENVIRONMENTAL QUALITY
Part V. Hazardous Waste and Hazardous Materials
Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 37. Financial Requirements

§3701. Applicability

A. The requirements of this Chapter apply to owners and operators of all hazardous waste facilities, except as provided otherwise in this Part.

Response: Cytec acknowledges the above citation. Cytec operates hazardous waste facilities that are subject to the financial requirements of LAC 33:V.Chapter 37.

B. The requirements of LAC 33:V.3709 and 3711 apply only to owners and operators of:

1. disposal facilities;

Response: Cytec owns and operates Class I injection wells for the on-site disposal of hazardous waste. These injection wells are permitted by the Louisiana Department of Natural Resources (DNR). The financial requirements for the injection wells are specified in LAC 43:XVII.207.C. and 209.O.

2. piles and surface impoundments from which the owner or operator intends to remove the wastes at closure, to the extent that these sections are made applicable to such facilities in LAC 33:V.Chapters 23 and 29;

Response: Cytec previously operated five (5) surface impoundments, identified as:

-Impoundment 1;
-Impoundment 3;
-North Waste Water Column Bottoms Back Wash Pit;
-South Waste Water Column Bottoms Back Wash Pit; and
-Deep Well Back Wash Pit.

These five (5) surface impoundments have been closed and LDEQ has accepted the closure certifications. A copy of LDEQ's letters documenting acceptance of closure dated June 7, 1989, January 15, 1991 and January 30, 1991 are included in Appendix C.

The post-closure financial requirements of LAC 33:V.3701.B are applicable to impoundments 1 and 3. Cytec has completed eight (8) years of post closure monitoring of impoundments 1 and 3. LDEQ issued Cytec a separate Post-Closure permit to address the post closure care requirements.

The North Waste Water Column Bottoms Back Wash Pit, South Waste Water Column Bottoms Back Wash Pit and Deep Well Back Wash Pit were "clean-

closed" and are no longer subject to regulation under RCRA. However, groundwater water monitoring is being performed in the area of these three (3) closed surface impoundments under a Groundwater Monitoring Agreement between Cytec and LDEQ. A copy of this agreement in included in Appendix D.

3. tank systems that are required under LAC 33:V.1915 to meet the requirements for landfills; and

   Response: The requirements of LAC 33:V.3701.B.3. do not apply to Cytec because Cytec does not own or operate any tank systems that are required to meet the requirements for landfills.

4. containment buildings that are required under LAC 33:V.1803 to meet the requirements for landfills.

   Response: The requirements of LAC 33:V.3701.B.4. do not apply to Cytec because Cytec does not own or operate any containment buildings.

C. States and the federal government are exempt from the requirements of this Chapter.

   Response: Cytec acknowledges the above citation.

[Comment: The permit application should include a description of the financial structure of the operating unit including capital structure, principal ownership, and insurance coverage for personal injury and property damage.]

Response: Cytec is an independent public company traded on the New York Stock Exchange and governed by a Board of Directors. Cytec was incorporated by Deborah M. Reusch in the state of Delaware on December 17, 1993. Cytec-Fortier maintains sudden liability insurance in the amount of $5 million per occurrence and $5 million annual aggregate. Non-sudden liability insurance is maintained in the amount of $3 million per occurrence and $6 million annual aggregate. A copy of the most recent financial assurance documentation submitted to LDEQ is included in Appendix W.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 16:614 (July 1990), LR 21:266 (March 1995).

§3703. Definitions of Terms as Used in This Chapter

A. General Terms

1. Closure Plan—the plan for closure prepared in accordance with the requirements of LAC 33:V.Chapter 35.

2. Current Closure Cost Estimate—the most recent of the estimates prepared in accordance with LAC 33:V.3705.A-C.

3. Current Post-closure Cost Estimate—the most recent of the estimates prepared in accordance with LAC 33:V.3709.A-C.

4. Parent Corporation—a corporation which directly owns at least 50 percent of the voting stock of the corporation which is the facility owner or operator; the latter corporation is deemed a subsidiary of the parent corporation.

5. Post-closure Plan—the plan for the post-closure care prepared in accordance with the requirements of LAC 33:V.Chapter 35.

6. The following terms are used in the specifications for the financial tests for closure, post-closure care, and liability coverage. The definitions are intended to assist in the understanding of these regulations and are not intended to limit the meanings of terms in a way that conflicts with generally accepted accounting practices.

   a. Assets—all existing and all probable future economic benefits obtained or controlled by a particular entity.

   b. Current Assets—cash or other assets, or resources commonly identified as those which are reasonably expected to be realized in cash, or sold, or consumed during the normal operating cycle of the business.

   c. Current Liabilities—obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

   d. Independently Audited—refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

   e. Liabilities—probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

   f. Net Working Capital—current assets minus current liabilities.

   g. Net Worth—total assets minus total liabilities and is equivalent to owner's equity.

   h. Tangible Net Worth—the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents or royalties.

7. Current Plugging and Abandonment Cost Estimates—most recent cost estimates prepared in accordance with 40 CFR 144.62a, b, and c, required by the Office of Conservation, or any other substantially equivalent state program.

8. Substantial Business Relationship—the extent of a business relationship necessary under applicable state law to make a guarantee contract issued incident to that relationship valid

and enforceable. A "substantial business relationship" must arise from a pattern of recent or ongoing business transactions, in addition to the guarantee itself, such that a currently existing business relationship between the guarantor and the owner or operator is demonstrated to the satisfaction of the applicable administrative authority.

Response: Cytec acknowledges the above citation.

B. Insurance-related Terms. In the liability insurance requirements the terms bodily injury and property damage shall have the meanings given these terms by applicable state law. However, these terms do not include those liabilities which, consistent with standard industry practices, are excluded from coverage in liability policies for bodily injury and property damage. The meanings of other terms used in the liability insurance requirements are to be consistent with their common meanings within the insurance industry. The definitions of several of the terms given below are intended to assist in the understanding of these regulations and are not intended to limit their meaning in a way that conflicts with general insurance industry usage.

1. Accidental Occurrence—an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage neither expected nor intended from the standpoint of the insured.

2. Legal Defense Costs—any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy.

3. Nonsudden Accidental Occurrence—an occurrence which takes place over time and involves continuous or repeated exposure.

4. Sudden Accidental Occurrence—an occurrence which is not continuous or repeated in nature.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 13:651 (November 1987), LR 16:614 (July 1990), LR 18:723 (July 1992).

Subchapter A. Closure Requirements

§3705. Cost Estimate for Closure

A. The owner or operator must have a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements in LAC 33:V.3503-)3517 and applicable closure requirements in LAC 33:V.1803, 1915, 2117, 2315, 2521, 2719, 2911, 3121, and 3203-3207.

1. The estimate must equal the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan (see LAC 33:V.3511.B); and

Response: Cytec has a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with applicable regulations. The estimate is included in the Closure Plan in Appendix T. The estimate equals the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive.

2. The closure cost estimate must be based on the costs to the owner or operator of hiring a third party to close the facility. A third party is a party who is neither a parent nor a subsidiary of owner or operator in LAC 33:V.3703.A. The owner or operator may use costs for on-site disposal if he can demonstrate that on-site disposal capacity will exist at all times over the life of the facility.

   Response: The closure cost estimate is based on the costs of hiring a third party to close the facility. Cytec does use costs for on-site disposal via deepwell injection.

3. The closure cost estimate may not incorporate any salvage value that may be realized with the sale of hazardous wastes or non-hazardous wastes if applicable under LAC 33:V.3513.D, facility structures or equipment, land, or other assets associated with the facility at the time of partial or final closure.

   Response: Cytec acknowledges the above citation.

4. The owner or operator may not incorporate a zero cost for hazardous wastes, or non-hazardous wastes if applicable under LAC 33:V.3513.D, that might have economic value.

   Response: Cytec acknowledges the above citation.

B. During the active life of the facility, the owner or operator must adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with LAC 33:V.3707. For owners and operators using the financial test or corporate guarantee, the closure cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the administrative authority as specified in LAC 33:V.3707.F. The adjustment may be made by recalculating the maximum costs of closure in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business, as specified in LAC 33:V.3705.B.1 and 2. The inflation factor is the result of dividing the latest published annual deflator by the deflator for the previous year.

   1. The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

   2. Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by the latest inflation factor.

   Response: Cytec acknowledges the above citation. Cytec demonstrates financial assurance using the financial test as specified in LAC 33:V.3707.F. Cytec updates the closure cost estimate for inflation within 30 days after the

close of the fiscal year and before submission of updated information to the administrative authority.

C. During the active life of the facility, the owner or operator must revise the closure cost estimate no later than 30 days after the administrative authority has approved the request to modify the closure plan, if the change in the closure plan increases the cost of closure. The revised closure cost estimate must be adjusted for inflation as specified in LAC 33:V.3705.B.

Response: Cytec acknowledges the above citation.

D. The owner or operator must keep, at the facility during the operating life of the facility, the latest closure cost estimate prepared as specified in LAC 33:V.3705.A and C and, when this estimate has been adjusted as specified in LAC 33:V.3705.B, the latest adjusted closure cost estimate. The cost estimate must be available to the administrative authority by mail request also.

Response: Cytec will maintain a copy of the latest closure cost estimate until superseded by the latest adjusted closure cost estimate at the facility during the operating life of the facility. This document will be available to the administrative authority upon request.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 13:433 (August 1987), LR 16:399 (May 1990), LR 17:478 (May 1991), LR 18:723 (July 1992), LR 21:266 (March 1995).

§3707. Financial Assurance for Closure

An owner or operator of each facility must establish financial assurance for closure of the facility. Under this Part, the owner or operator must choose from the options as specified in LAC 33:V.3707.A—F, which choice the administrative authority must find acceptable based on the application and the circumstances.

Response: The requirements of LAC 33:V.3707.A.-E. do not apply to Cytec because Cytec uses a financial test in accordance with LAC 33:V.3707.F. to establish financial assurance for closure of the Fortier facility.

Cytec uses a letter of credit to meet the financial assurance for closure of facilities located in Havre de Grace, Maryland and Kalamazoo, Michigan.

F. Financial Test and Corporate Guarantee for Closure

1. An owner or operator may satisfy the requirements of this Section by demonstrating that he passes a financial test as specified in this Section. To pass this test the owner or operator must meet the criteria of either of the following:

   a. The owner or operator must have:

i. either a ratio of total liabilities to net worth less than 1.5, or a ratio of the sum of net income plus depreciation, depletion, and amortization minus $10 million to total liabilities greater than 0.1; and

ii. tangible net worth greater than the sum of the current closure and post-closure cost estimates and any other obligations covered by a financial test plus $10 million; and

iii. assets located in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates and any other obligations covered by a financial test.

b. The owner or operator must have:

i. a current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

ii. tangible net worth greater than the sum of the current closure and post-closure cost estimates and any other obligations covered by a financial test plus $10 million; and

iii. assets located in the United States amounting to at least 90 percent of his total assets or at least six times the sum of the current closure and post-closure cost estimates and any other obligations covered by a financial test.

Response: Cytec demonstrates passing the financial test by meeting the criteria specified in LAC 33:V.3707.F.1.b. A copy of Cytec's most recent financial assurance demonstration is included in Appendix W.

2. The phrase "current closure and post-closure cost estimates" as used in LAC 33:V.3707.F.1 refers to the cost estimates required to be shown in Paragraphs 1-7 of the letter from the owner's or operator's chief financial officer (see LAC 33:V.3719.F).

Response: Cytec acknowledges the above citation.

3. To demonstrate that he meets this test, the owner or operator must submit the following items to the administrative authority:

a. a letter signed by the owner's or operator's chief financial officer and worded as specified in LAC 33:V.3719.F; and

b. a copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

c. a special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

i. he has compared the data with the letter from the chief financial officer specified as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

ii. in connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

Response: Cytec has submitted the information as specified in LAC 33:V.3707.F.3 to the administrative authority to successfully demonstrate meeting the requirements of the financial test. A copy of Cytec's most recent financial assurance demonstration is included in Appendix W.

4. An owner or operator of a new facility must submit the items specified in LAC 33:V.3707.F.3 to the administrative authority at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal.

   Response: The requirement of LAC 33:V.3707.F.4 does not apply to Cytec because Cytec is not a new facility.

5. After the initial submission of items specified in LAC 33:V.3707.F.3, the owner or operator must send updated information to the administrative authority within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in LAC 33:V.3707.F.3.

   Response: Cytec provides updated information to the administrative authority within 90 days after the close of each fiscal year.

6. If the owner or operator no longer meets the requirements of LAC 33:V.3707.F.1, he must send notice to the administrative authority of intent to establish alternate financial assurance as specified in this Part. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.

   Response: Cytec acknowledges the above citation.

7. The administrative authority may, based on a reasonable belief that the owner or operator may no longer meet the requirements of LAC 33:V.3707.F.1, require reports of financial condition at any time from the owner or operator in addition to those specified in LAC 33:V.3707.F.3. If the administrative authority finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of LAC 33:V.3707.F.1, the owner or operator must provide alternate financial assurance as specified in this Part within 30 days after notification of such a finding.

   Response: Cytec acknowledges the above citation.

8. The administrative authority may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see LAC 33:V.3707.F.3). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The administrative authority will evaluate other qualifications on an individual basis. Based on the application, the circumstances and the accessibility of the applicant's assets, the administrative authority may disallow the use of this test. The owner or operator must

provide alternate financial assurance as specified in this Part within 30 days after notification of the disallowance.

Response: Cytec acknowledges the above citation.

9. The owner or operator is no longer required to submit the items specified in LAC 33:V.3707.F.3 when:

   a. an owner or operator substitutes alternate financial assurance as specified in this Part; or

   b. the administrative authority releases the owner or operator from the requirements of this Part in accordance with LAC 33:V.3707.I.

Response: Cytec acknowledges the above citation.

10. An owner or operator may meet the requirements of this Section by obtaining a written guarantee. The guarantor must be the direct or higher tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements of LAC 33:V.3707.F.1—8 for owners or operators, and must comply with the terms of the guarantee. The wording of the guarantee must be identical to the wording specified in LAC 33:V.3719.H. A certified copy of the guarantee must accompany the items sent to the administrative authority as specified in LAC 33:V.3707.F.3. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee. The terms of the corporate guarantee must provide that:

    a. If the owner or operator fails to perform final closure of a facility covered by the guarantee in accordance with the closure plan and other permit requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in LAC 33:V.3707.A in the name of the owner or operator.

    b. The guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator, and to the administrative authority. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the administrative authority, as evidenced by the return receipts.

    c. If the owner or operator fails to provide alternate financial assurance as specified in this Section and obtain the written approval of such alternate assurance from the administrative authority within 90 days after receipt by the administrative authority of a notice of cancellation of the guarantee from the guarantor, the guarantor will provide such alternative financial assurance in the name of the owner or operator.

Response: The requirements of LAC 33:V.3707.F.10 do not apply to Cytec because Cytec does not use a written guarantee to meet the financial assurance requirements.

G. Use of Multiple Financial Mechanisms. An owner or operator may satisfy the requirements of this Section by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit, insurance, and financial test and guarantee, except that the financial test and guarantee may not be combined. The mechanisms must be as specified in LAC 33:V.3707.A, B, D, E, and F, respectively, except that it is the combination of mechanisms, rather than the single mechanism, that must provide financial assurance for an amount at least equal to the current closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanism. A single trust fund may be established for two or more mechanisms. The administrative authority may use any or all of the mechanisms to provide for closure of the facility.

Response: Cytec acknowledges the above citation. Cytec satisfies the financial assurance requirements using one financial mechanism, a financial test, for the Fortier facility. Cytec uses multiple financial mechanisms consisting of a financial test and letter of credit for facilities located in Havre de Grace, Maryland and Kalamazoo, Michigan.

H. Use of a Financial Mechanism for Multiple Facilities. An owner or operator may use a financial assurance mechanism specified in this Section to meet the requirements of this Section for more than one facility. Evidence of financial assurance submitted to the administrative authority must include a list showing, for each facility, the EPA identification number, name, address, and the amount of funds for closure assured by the mechanism. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing the funds available through the mechanism for closure of any of the facilities covered by the mechanism, the administrative authority may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

Response: Cytec acknowledges the above citation. Cytec uses the financial test to meet the requirements for more than one facility. The information specified in LAC 33:V.37007.H is included in Cytec's most recent financial assurance demonstration in Appendix W.

I. Release of the Owner or Operator from the Requirements of this Section. Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that final closure has been completed in accordance with the approved closure plan, and for facilities subject to LAC 33:V.3525, after receiving the certification required under LAC 33:V.3525.B.2, the administrative authority will notify the owner or operator in writing that he is no longer required by this Section to maintain financial assurance for final closure of the particular facility, unless the administrative authority has reason to believe that final closure has not been in accordance with the approved closure plan or that the owner or operator has failed to comply with the applicable requirements of LAC 33:V.3525. The administrative authority shall

provide the owner or operator a detailed written statement of any such reason to believe that closure has not been in accordance with the approved closure plan or that the owner or operator has failed to comply with the applicable requirements of LAC 33:V.3525.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 13:433 (August 1987), LR 18:723 (July 1992).

Subchapter B. Post-closure Requirements

§3709. Cost Estimate for Post-closure Care

A. The owner or operator of a disposal surface impoundment, disposal miscellaneous unit, land treatment unit, or landfill unit, or of a surface impoundment or waste pile required under LAC 33:V.2315 and 2911 to prepare a contingent closure and post-closure plan, must have a detailed written estimate, in current dollars, of the annual cost of post-closure monitoring and maintenance of the facility in accordance with the applicable post-closure regulations in LAC 33:V.3519, 3527, 2315, 2521, 2719, 2911, and 3207.

1. The post-closure cost estimate must be based on the costs to the owner or operator of hiring a third party to conduct post-closure care activities. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in LAC 33:V.3703.)

2. The post-closure cost estimate is calculated by multiplying the annual post-closure cost estimate by the number of years of post-closure care required under LAC 33:V.3523.

Response: Cytec has a detailed written estimated, in current dollars, of the annual cost of post-closure monitoring and maintenance of the facility in accordance with the applicable regulations. The estimate is based on the costs of hiring a third party to conduct post-closure care activities and is calculated by multiplying the annual post-closure cost estimate by the number of years of post-closure care required by regulation. The post closure requirements are being addressed in a separate post-closure permit issued by LDEQ.

B. During the active life of the facility, the owner or operator must adjust the post-closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with LAC 33:V.3711. For owners or operators using the financial test or corporate guarantee, the post-closure cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before the submission of updated information to the administrative authority as specified in LAC 33:V.3711.F.5. The adjustment may be made by recalculating the post-closure cost estimate in current dollars or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business as specified in LAC 33:V.3709.B.1 and B.2. The inflation factor is the result of dividing

the latest published annual deflator by the deflator for the previous year.

1. The first adjustment is made by multiplying the post-closure cost estimate by the inflation factor. The result is the adjusted post-closure cost estimate.

2. Subsequent adjustments are made by multiplying the latest adjusted post-closure cost estimate by the latest inflation factor.

Response: Cytec acknowledges the above citation. Cytec demonstrates financial assurance using the financial test as specified in LAC 33:V.3711.F. Cytec updates the post closure cost estimate for inflation within 30 days after the close of the fiscal year and before submission of updated information to the administrative authority.

C. During the active life of the facility, the owner or operator must revise the post-closure cost estimate within 30 days after the administrative authority has approved the request to modify the post-closure plan, if the change in the post-closure plan increases the cost of post-closure care. The revised post-closure cost estimate must be adjusted for inflation as specified in LAC 33:V.3709.B.

Response: Cytec acknowledges the above citation.

D. The owner or operator must keep the following at the facility during the operating life of the facility: the latest post-closure cost estimate prepared in accordance with LAC 33:V.3709.A and C and, when this estimate has been adjusted, the latest adjusted post-closure cost estimate.

Response: Cytec will maintain a copy of the latest post-closure cost estimate until superseded by the latest adjusted post-closure estimate at the facility during the operating life of the facility.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 13:433 (August 1987), LR 16:399 (May 1990).

§3711. Financial Assurance for Post-closure Care

The owner or operator of a facility subject to post-closure monitoring or maintenance requirements must establish financial assurance for post-closure care in accordance with the approved post-closure plan for the facility 60 days prior to the initial receipt of hazardous waste or the effective date of the regulation, whichever is later. Under this Section, the owner or operator must choose from the options as specified in LAC 33:V.3711.A—F, which choice the administrative authority must find acceptable based on the application and the circumstances.

Response: The requirements of LAC 33:V.3711.A.-E. do not apply to Cytec because Cytec uses a financial test in accordance with LAC 33:V.3711.F. to establish financial assurance for post-closure of the facility.

F. Financial Test and Corporate Guarantee for Post-closure Care

1. An owner or operator may satisfy the requirements of this Section by demonstrating that he passes a financial test as specified in this Subsection. To pass this test the owner or operator must meet the criteria of either of the following:

   a. The owner or operator must have:

      i. either a ratio of total liabilities to net worth less than 1.5, or a ratio of the sum of net income plus depreciation, depletion, and amortization, minus $10 million, to total liabilities greater than 0.1; and

      ii. tangible net worth greater than the sum of the current closure and post-closure cost estimates and any other obligations covered by a financial test, plus $10 million; and

      iii. assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and post-closure cost estimates, and any other obligations covered by a financial test.

   b. The owner or operator must have:

      i. a current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

      ii. tangible net worth greater than the sum of the current closure and post-closure cost estimates and any other obligations covered by a financial test, plus $10 million; and

      iii. assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the current closure and post-closure estimates and any other obligations covered by a financial test, plus $10 million.

   Response: Cytec demonstrates passing the financial test by meeting the criteria specified in LAC 33:V.3711.F.1.b. A copy of Cytec's most recent financial assurance demonstration is included in Appendix W.

2. The phrase "current closure and post-closure cost estimates" as used in LAC 33:V.3711.F.1 refers to the cost estimates required to be shown in Paragraphs 1—7 of the letter from the owner's or operator's chief financial officer (see LAC 33:V.3719.F).

   Response: Cytec acknowledges the above citation.

3. To demonstrate that he meets this test, the owner or operator must submit the following items to the administrative authority:

   a. a letter signed by the owner's or operator's chief financial officer and worded as specified in LAC 33:V.3719.F; and

   b. a copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and

c. a special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

   i. he has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

   ii. in connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

Response: Cytec has submitted the information as specified in LAC 33:V.3711.F.3. to the administrative authority to successfully demonstrate meeting the requirements of the financial test. A copy of Cytec's most recent financial assurance demonstration is included in Appendix W.

4. An owner or operator of a new facility must submit the items specified in LAC 33:V.3711.F.3 to the administrative authority at least 60 days before the date on which hazardous waste is first received for disposal.

   Response: Cytec acknowledges the above citation. The requirement of LAC 33:V.3711.F.4. do not apply to Cytec because Cytec is not a new facility.

5. After the initial submission of items specified in LAC 33:V.3711.F.3, the owner or operator must send updated information to the administrative authority within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in LAC 33:V.3711.F.3.

   Response: Cytec provides updated information to the administrative authority within 90 days after the close of each fiscal year. A copy of Cytec's most recent financial assurance demonstration is included in Appendix W.

6. If the owner or operator no longer meets the requirements of LAC 33:V.3711.F.1 of this Part, he must send notice to the administrative authority of intent to establish alternate financial assurance as specified in this Part. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements. The owner or operator must provide the alternate financial assurance within 120 days after the end of such fiscal year.

   Response: Cytec acknowledges the above citation.

7. The administrative authority may, based on a reasonable belief that the owner or operator may no longer meet the requirements of LAC 33:V.3711.F.1, require reports of financial condition at any time from the owner or operator in addition to those specified in LAC 33:V.3711.F.3. If the administrative authority finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of LAC 33:V.3711.F.1, the owner or operator must provide alternate financial assurance as specified in this Part within 30 days after notification of such a finding.

Response: Cytec acknowledges the above citation.

8. The administrative authority may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see LAC 33:V.3711.F.3). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The administrative authority will evaluate other qualifications on an individual basis. Based on the application, the circumstances, and the accessibility of the applicant's assets, the administrative authority may disallow the use of this test. The owner or operator must provide alternate financial assurance as specified in this Part within 30 days after notification of the disallowance.

Response: Cytec acknowledges the above citation.

9. During the period of post-closure care, the administrative authority may approve a decrease in the current post-closure cost estimate for which this test demonstrates financial assurance if the owner or operator demonstrates to the administrative authority that the amount of the cost estimate exceeds the remaining cost of post-closure care.

Response: Cytec acknowledges the above citation.

10. The owner or operator is no longer required to submit the items specified in LAC 33:V.3711.F.3 when:

    a. an owner or operator substitutes alternate financial assurance as specified in this Part; or

    b. the administrative authority releases the owner or operator from the requirements of this Part in accordance with LAC 33:V.3711.I.

Response: Cytec acknowledges the above citation.

11. An owner or operator may meet the requirements of this Section by obtaining a written guarantee. The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators of LAC 33:V.3711.F.1—9 and must comply with the terms of the guarantee. The wording of the guarantee must be identical to the wording specified in LAC 33:V.3719.H. A certified copy of the guarantee must accompany the items sent to the administrative authority specified in LAC 33:V.3711.F.3. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee. The terms of the corporate guarantee must provide that:

    a. If the owner or operator fails to perform post-closure care of a facility covered by the

corporate guarantee in accordance with the post-closure plan and other permit requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in LAC 33:V.3711.A in the name of the owner or operator.

b. The corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the administrative authority. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the administrative authority, as evidenced by the return receipts.

c. If the owner or operator fails to provide alternate financial assurance as specified in this Part and obtain the written approval of such alternate assurance from the administrative authority within 90 days after receipt by both the owner or operator and the administrative authority of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternate financial assurance in the name of the owner or operator.

Response: The requirements of LAC 33:V.3711.F.11. do not apply to Cytec because Cytec does not use a written guarantee to meet the financial assurance requirements.

G. Use of Multiple Financial Mechanisms. An owner or operator may satisfy the requirements of this Section by establishing more than one financial mechanism per facility. These mechanisms are limited to trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit, insurance, and financial test and guarantee, except that the financial test and guarantee may not be combined. The mechanisms must be as specified in LAC 33:V.3711.A, B, D, E, and F, respectively, except that it is the combination of mechanisms, rather than the single mechanism, that must provide financial assurance for an amount at least equal to the cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, he may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The administrative authority may use any or all of the mechanisms to provide for post-closure care of the facility.

Response: Cytec acknowledges the above citation. Cytec satisfies the financial assurance requirements for post-closure care using one financial mechanism, the financial test.

H. Use of a Financial Mechanism for Multiple Facilities. An owner or operator may use a financial assurance mechanism specified in this Section to meet the requirements of this Section for more than one facility. Evidence of financial assurance submitted to the administrative authority must include a list showing, for each facility, the EPA identification number, name, address, and the amount of funds for post-closure assured by the mechanism. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. In directing funds available through the mechanism for post-closure care of any of the facilities covered by the mechanism, the administrative authority may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.

Response: Cytec acknowledges the above citation. Cytec uses the financial

test to meet the financial assurance requirements for more than one facility. The information specified in LAC 33:V.311.H. is included in Cytec's most recent financial assurance demonstration in Appendix W.

I. Release of the Owner or Operator from the Requirements of this Part. Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that the post-closure care period has been completed for a hazardous waste disposal unit in accordance with the approved plan, the administrative authority will notify the owner or operator that he is no longer required to maintain financial assurance for post-closure care of that unit, unless the administrative authority has reason to believe that post-closure care has not been in accordance with the approved post-closure plan. The administrative authority shall provide the owner or operator with a detailed written statement of any such reason to believe that post-closure care has not been in accordance with the approved post-closure plan.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 13:433 (August 1987), LR 14:791 (November 1988), LR 18:723 (July 1992).

Subchapter C. Common Closure and Post-closure Requirements

§3713. Use of a Mechanism for Financial Assurance of Both Closure and Post-closure Care

An owner or operator may satisfy the requirements for financial assurance for both closure and post-closure care for one or more facilities by using a trust fund, surety bond, letter of credit, insurance, financial test, or corporate guarantee that meets the specifications for the mechanism in both LAC 33:V.3707 and 3711. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism has been established and maintained for financial assurance of closure and post-closure care.

Response: Cytec acknowledges the above citation. Cytec satisfies the financial assurance requirements for both closure and post-closure care, for multiple facilities using a letter of credit and financial test that meet the regulatory requirements.

Cytec uses a financial test to satisfy the financial assurance requirements for both, closure and post-closure care, for the Fortier facility.

Cytec uses a letter of credit to meet the financial assurance for closure of facilities locates in Havre de Grace, Maryland and Kalamazoo, Michigan.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

Subchapter D. Insurance Requirements

§3715. Liability Requirements

A. Coverage for Sudden Accidental Occurrences. An owner or operator of a hazardous waste treatment, storage, or disposal facility, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per occurrence, with an annual aggregate of at least $2 million, exclusive of legal defense costs. This liability coverage may be demonstrated as specified in LAC 33:V.3715.A.1, 2, 3, 4, 5, or 6. For any facility that treats, stores, or disposes by land treatment (i.e., surface impoundment, waste pile, landfarm, or landfill) any acute hazardous waste (see Table 3 of LAC 33:V.Chapter 49), or any toxic waste listed because of toxicity or reactivity (see Table 4 of LAC 33:V.Chapter 49) the liability coverage must be at least $5 million per occurrence, with an annual aggregate of at least $5 million exclusive of legal defense costs.

1. An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this Paragraph.

   a. Each insurance policy must be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a certificate of liability insurance. The wording of the endorsement must be identical to the wording specified in LAC 33:V.3719.I. The wording of the certificate of insurance must be identical to the wording specified in LAC 33:V.3719.J. The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the administrative authority. If requested by the administrative authority, the owner or operator must provide a signed duplicate original of the insurance policy. An owner or operator of a new facility must submit the signed duplicate original of the Hazardous Waste Facility Liability Endorsement or the certificate of liability insurance to the administrative authority at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance must be effective before this initial receipt of hazardous waste.

   b. Each insurance policy must be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states, and authorized to transact business in Louisiana.

2. An owner or operator may meet the requirements of this Section by passing a financial test or using the corporate guarantee for liability coverage as specified in Subsection G of this Section.

3. An owner or operator may meet the requirements of this Section by obtaining a letter of credit for liability coverage as specified in LAC 33:V.3715.H.

4. An owner or operator may meet the requirements of this Section by obtaining a surety bond for liability coverage as specified in LAC 33:V.3715.I.

5. An owner or operator may meet the requirements of this Section by obtaining a trust fund for liability coverage as specified in LAC 33:V.3715.J.

6. An owner or operator may demonstrate the required liability coverage through use of combinations of financial test, insurance, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amounts required by this Section. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this Paragraph, the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurances as "excess" coverage.

   Response: Cytec maintains liability coverage for sudden accidental occurrences in the amount of $5 million per occurrence with an annual aggregate of $5 million. The insurance requirements for the Fortier facility are demonstrated through the use of a financial test, which is included in Appendix W.

7. An owner or operator shall notify the administrative authority in writing within 30 days whenever:

   a. a claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in LAC 33:V.3715.A.1-6; or

   b. a Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is entered between the owner or operator and third-party claimant for liability coverage under LAC 33:V.3715.A.1-6; or

   c. a final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under LAC 33:V.3715.A.1—6.

   Response: Cytec acknowledges the above citation.

B. Coverage for Non-sudden Accidental Occurrences. An owner or operator of a surface impoundment, landfill, land treatment facility, or miscellaneous disposal unit that is used to manage hazardous waste, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least $3 million per occurrence with an annual aggregate of at least $6 million, exclusive of legal defense costs. An owner or operator who must meet the requirements of this Section may combine the required per-occurrence coverage levels for sudden and non-sudden accidental occurrence into a single per-occurrence level, and combine the required annual aggregate coverage levels for sudden and non-sudden accidental occurrences into a single annual aggregate level. Owners or operators who combine coverage levels for sudden and non-sudden accidental occurrences must maintain liability coverage in the amount of at

least $5 million per occurrence and $10 million annual aggregate. This liability coverage may be demonstrated as specified in LAC 33:V.3715.B.1, 2, 3, 4, 5, or 6.

1. An owner or operator may demonstrate the required liability coverage by having liability insurance as specified in this Paragraph.

   a. Each insurance policy must be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a certificate of liability insurance. The wording of the endorsement must be identical to the wording specified in LAC 33:V.3719.I. The wording of the certificate of insurance must be identical to the wording specified in LAC 33:V.3719.J. The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the administrative authority. If requested by the administrative authority, the owner or operator must provide a signed duplicate original of the insurance policy. An owner or operator of a new facility must submit the signed duplicate original of the Hazardous Waste Facility Liability Endorsement or the certificate of liability insurance to the administrative authority at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance must be effective before this initial receipt of hazardous waste.

   b. Each insurance policy must be issued by an insurer which, at a minimum, is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer in one or more states and authorized to transact business in Louisiana.

2. An owner or operator may meet the requirements of this Section by passing a financial test or using the guarantee for liability coverage as specified in LAC 33:V.3715.F and G.

3. An owner or operator may meet the requirements of this Section by obtaining a letter of credit for liability coverage as specified in LAC 33:V.3715.H.

4. An owner or operator may meet the requirements of this Section by obtaining a surety bond for liability coverage as specified in LAC 33:V.3715.I.

5. An owner or operator may meet the requirements of this Section by obtaining a trust fund for liability coverage as specified in LAC 33:V.3715.J.

6. An owner or operator may demonstrate the required liability coverage through use of combinations of financial test, insurance, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amounts required by this Section. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances under this Paragraph, the owner or operator shall specify at least one such assurance as "primary" coverage and shall specify other assurance as "excess" coverage.

   Response: Cytec maintains liability coverage for nonsudden accidental

occurrences in the amount of $3 million per occurrence with an annual aggregate of $6 million. The insurance requirements for the Fortier facility are demonstrated through the use of a financial test, which is included in Appendix W.

7. An owner or operator shall notify the administrative authority in writing within 30 days whenever:

   a. a claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in LAC 33:V.3715.B.1-6; or

   b. a Certification of Valid Claim for bodily injury or property damages caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is entered between the owner or operator and third-party claimant for liability coverage under LAC 33:V.3715.B.1-6; or

   c. a final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under LAC 33:V.3715.B.1-6.

Response: Cytec acknowledges the above citation.

C. Request for Variance. If an owner or operator can demonstrate to the satisfaction of the administrative authority that the levels of financial responsibility required by LAC 33:V.3715.A and B are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the owner or operator may obtain a variance from the administrative authority. The request for a variance must be submitted to the administrative authority as part of the application under LAC 33:V.Chapter 3 for a facility that does not have a permit, or pursuant to the procedures for permit modification under LAC 33:V.Chapter 5 for a facility that has a permit. If granted, the variance will take the form of an adjusted level of required liability coverage, such level to be based on the administrative authority's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The administrative authority may require an owner or operator who requests a variance to provide such technical and engineering information as is deemed necessary by the administrative authority to determine a level of financial responsibility other than that required by LAC 33:V.3715.A and B. Any request for a variance for a permitted facility will be treated as a request for a permit modification under LAC 33:V.321.

Response: Cytec acknowledges the above citation.

D. Adjustments by the Administrative Authority. If the administrative authority determines that the levels of financial responsibility required by LAC 33:V.3715.A or B are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the administrative authority may adjust the level of financial responsibility required by LAC 33:V.3715.A and B as may be necessary to protect human health and the environment. This adjusted level will be based on the administrative

authority's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the administrative authority determines that there is a significant risk to human health and the environment from nonsudden accidental occurrences resulting from the operations of a facility that is not a surface impoundment, landfill, or land treatment facility, he may require that an owner or operator of the facility comply with LAC 33:V.3715.B. An owner or operator must furnish to the administrative authority, within a reasonable time, any information which the administrative authority requests to determine whether cause exists for such adjustments of level or type of coverage. Any adjustment of the level or type of coverage for a facility that has a permit will be treated as a permit modification under LAC 33:V.321.

Response: Cytec acknowledges the above citation.

E. Period of Coverage. Within 60 days after receiving certifications from the owner or operator and an independent registered professional engineer that final closure has been completed in accordance with the approved closure plan, the administrative authority will notify the owner or operator in writing that he is no longer required by this Section to maintain liability coverage for that facility, unless the administrative authority has reason to believe that closure has not been in accordance with the approved closure plan.

Response: Cytec acknowledges the above citation.

F. Financial Test for Liability Coverage

1. An owner or operator may satisfy the requirements of this Section by demonstrating that he passes a financial test as specified in this Subsection. To pass this test the owner or operator must meet the criteria of either LAC 33:V.3715.F.1.a or b below:

   a. The owner or operator must have:

      i. tangible net worth greater than the sum of the amount of liability coverage to be demonstrated by this test plus $10 million; and

      ii. assets located in the United States amounting to either at least 90 percent of his total assets or at least six times the sum of the amount of liability coverage and any other obligations covered by a financial test.

   b. The owner or operator must have:

      i. a current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's; and

      ii. tangible net worth greater than the sum of the amount of liability coverage to be demonstrated by this test plus $10 million; and

      iii. assets located in the United States amounting to at least 90 percent of total assets or at least six times the sum of the amount of liability coverage and any other obligations covered by a financial test.

Response: Cytec demonstrates passing the financial test by meeting the criteria specified in LAC 33:V.3715.F.1.b.. A copy of Cytec's most recent insurance coverage demonstration is included in Appendix W.

2. The phrase amount of liability coverage as used in LAC 33:V.3715.F.1 refers to the annual aggregate amounts for which coverage is required under LAC 33:V.3715.A and B.

   Response: Cytec acknowledges the above citation. .

3. To demonstrate that he meets this test, the owner or operator must submit the following three items to the administrative authority:

   a. a letter signed by the owner's or operator's chief financial officer and worded as specified in LAC 33:V.3719.G. If an owner or operator is using the financial test to demonstrate both assurance for closure or post-closure care, as specified by LAC 33:V.3707.E, 3707.F, 3711.E and F and liability coverage, he must submit the letter specified in LAC 33:V.3719.G to cover both forms of financial responsibility; a separate letter as specified in LAC 33:V.3719.F is not required;

   b. a copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year;

   c. a special report from the owner's or operator's independent certified public accountant to the owner or operator stating that:

      i. he has compared the data which the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and

      ii. in connection with that procedure, no matters came to his attention which caused him to believe that the specified data should be adjusted.

   Response: Cytec has submitted the information as specified in LAC 33:V.3715.F.3. to the administrative authority to successfully demonstrate meeting the closure, post-closure and liability coverage. A copy of Cytec's most recent financial an insurance demonstration is included in Appendix W.

4. An owner or operator of a new facility must submit the items specified in LAC 33:V.3715.F.3 to the administrative authority at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal.

   Response: Cytec acknowledges the above citation. The requirements of LAC 33:V.3715.F.4. do not apply to Cytec because Cytec is not a new facility.

5. After the initial submission of items specified in LAC 33:V.3715.F.3, the owner or operator must send updated information to the administrative authority within 90 days after the

close of each succeeding fiscal year. This information must consist of all three items specified in LAC 33:V.3715.F.3.

Response: Cytec provides updated information to the administrative authority within 90 days after the close of each fiscal year. A copy of Cytec's most recent financial and insurance demonstration is included in Appendix W.

6. If the owner or operator no longer meets the requirements of LAC 33:V.3715.F.1, he must obtain insurance, a letter of credit, a surety bond, a trust fund, or a guarantee for the entire amount of required liability coverage as specified in this Section. Evidence of liability coverage must be submitted to the administrative authority within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the test requirements.

   Response: Cytec acknowledges the above citation.

7. The administrative authority may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on examination of the owner's or operator's financial statements (see LAC 33:V.3715.F.3). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The administrative authority will evaluate other qualifications on an individual basis. Based on the application, the circumstances and the accessibility of the applicant's assets, the administrative authority may disallow the use of this test. The owner or operator must provide evidence of insurance for the entire amount of required liability coverage as specified in this Part within 30 days after notification of disallowance.

   Response: Cytec acknowledges the above citation.

8. The corporate guarantee authorized for use to demonstrate financial assurance for closure and/or post-closure may not be used to demonstrate financial assurance for liability coverage.

   Response: Cytec acknowledges the above citation.

G. Guarantee for Liability Coverage. Subject to LAC 33:V.3715.G.2, an owner or operator may meet the requirements of this Section by obtaining a written guarantee, hereinafter referred to as "guarantee." The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators in LAC 33:V.3715.F.1—7. The wording of the guarantee must be identical to the wording specified in LAC 33:V.3719. A certified copy of the guarantee must accompany the items sent to the administrative authority as specified in LAC 33:V.3715.F.3. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, this letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee.

1. If the owner or operator fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden or nonsudden accidental occurrences (or both as the case may be), arising from the operation of facilities covered by this guarantee, or fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from such injury or damage, the guarantor will do so up to the limits of coverage.

2. In the case of corporations incorporated in the United States, a guarantee may be used to satisfy the requirements of this Section only if the attorney general or insurance commissioner of the state in which the guarantor is incorporated and the attorney general or insurance commissioner of Louisiana have submitted written statements to the department that a guarantee executed as described in this Section and LAC 33:V.3719.H.2 is a legally valid and enforceable obligation in that state.

3. In the case of corporations incorporated outside the United States, a guarantee may be used to satisfy the requirements of this Section only if the non-U.S. corporation has identified a registered agent for service of process in Louisiana and in the state in which it has its principal place of business, and the attorney general or insurance commissioner of Louisiana and the state in which the guarantor corporation has its principal place of business have submitted written statements to the department that a corporate guarantee executed as described in this Section and LAC 33:V.3719.H.2 is a legally valid and enforceable obligation in that state.

   Response: The requirements of LAC 33:V.3715.G. do not apply to Cytec because Cytec does not use a written guarantee to meet the liability coverage requirements.

H. Letter of Credit for Liability Coverage

1. An owner or operator may satisfy the requirements of this Section by obtaining an irrevocable standby letter of credit that conforms to the requirements of this Subsection and submitting a copy of the letter of credit to the administrative authority.

2. The financial institution issuing the letter of credit must be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a federal or state agency.

3. The wording of the letter of credit must be identical to the wording specified in LAC 33:V.3719.K.

4. An owner or operator who uses a letter of credit to satisfy the requirements of this Section may also establish a standby trust fund. Under the terms of such a letter of credit, all amounts paid pursuant to a draft by the trustee of the standby trust will be deposited by the issuing institution into the standby trust in accordance with instructions from the trustee. The trustee of the standby trust fund must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency.

5. The wording of the standby trust fund must be identical to the wording specified in LAC

33:V.3719.N.

Response: The requirements of LAC 33:V.3715.H. do not apply to Cytec because Cytec does not use a letter of credit to meet the liability coverage requirements.

I. Surety Bond for Liability Coverage

1. An owner or operator may satisfy the requirements of this Section by obtaining a surety bond that conforms to the requirements of this Subsection and submitting a copy of the bond to the administrative authority.

2. The surety company issuing the bond must be among those listed as acceptable sureties on federal bonds in the most recent Circular 570 of the U.S. Department of the Treasury.

3. The wording of the surety bond must be identical to the wording specified in LAC 33:V.3719.L.

4. A surety bond may be used to satisfy the requirements of this Section only if the attorney general or insurance commissioner of the state in which the surety is incorporated and the attorney general or insurance commissioner of Louisiana have submitted a written statement to EPA that a surety bond executed as described in this Section and LAC 33:V.3719.L is a legally valid and enforceable obligation in that state.

Response: The requirements of LAC 33:V.3715.I. do not apply to Cytec because Cytec does not use a surety bond to meet the liability coverage requirements.

J. Trust Fund for Liability Coverage

1. An owner or operator may satisfy the requirements of this Section by establishing a trust fund that conforms to the requirements of this Paragraph and submitting an originally signed duplicate of the trust agreement to the administrative authority.

2. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency.

3. The trust fund for liability coverage must be funded for the full amount of the liability coverage to be provided by the trust fund before it may be relied upon to satisfy the requirements of this Section. If at any time after the trust fund is created, the amount of funds in the trust fund is reduced below the full amount of the liability coverage to be provided, the owner or operator, by the anniversary date of the establishment of the fund, must either add sufficient funds to the trust fund to cause its value to equal the full amount of liability coverage to be provided, or obtain other financial assurance as specified in this Section to cover the difference. For purposes of this Paragraph, "the full amount of the liability coverage to be provided" means the amount of coverage for sudden and/or non-sudden occurrences required to be provided by the owner or operator by this Section, less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the

owner or operator.

4. The wording of the trust fund must be identical to the wording specified in LAC 33:V.3719.M.

Response: The requirements of LAC 33:V.3715.J. do not apply to Cytec because Cytec does not use a trust fund to meet the liability coverage requirements.

K. Notwithstanding any other provision of LAC 33:V.Subpart 1, an owner or operator using liability insurance to satisfy the requirements of this Section may use, until October 16, 1982, a Hazardous Waste Facility Liability Endorsement or Certificate of Liability Insurance that does not certify that the insurer is licensed to transact the business of insurance, or eligible as an excess or surplus lines insurer, in one or more states.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984), amended LR 10:496 (July 1984), LR 11:686 (July 1985), LR 13:433 (August 1987), LR 13:651 (November 1987), LR 16:399 (May 1990), LR 18:723 (July 1992), repromulgated LR 19:486 (April 1993).

Subchapter E. Incapacity Regulations

§3717. Incapacity of Owners or Operators, Guarantors, or Financial Institutions

A. An owner or operator must notify the administrative authority by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in LAC 33:V.3707.F and 3711.F must make such a notification if he is named as debtor, as required under the terms of the corporate guarantee (see LAC 33:V.3719.H).

Response: Cytec acknowledges the above citation.

B. An owner or operator who fulfills the requirements of LAC 33:V.3707, 3711 or 3715 by obtaining a trust fund, surety bond, letter of credit, or insurance policy will be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator must establish other financial assurance or liability coverage within 60 days after such an event.

Response: Cytec acknowledges the above citation.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 10:200 (March 1984).

Subchapter F. Financial and Insurance Instruments

§3719. Wording of the Instruments

Response: The requirements of LAC 33:V.3719.A-F. are not applicable to Cytec because Cytec uses a financial test in accordance with LAC 33:V.3707.F., LAC 33:V.3711.F. and LAC 33:V.3715.F. to establish financial assurance for closure, post-closure and liability coverage for the facility. The letter is worded in accordance with LAC 33:V.3719.G. as required by LAC 33:V.3715.F.3.a.

G. Liability Coverage Guarantee. A letter from the chief financial officer, as specified in LAC 33:V.3715.F or 4411, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:
Secretary
Louisiana Department of Environmental Quality
P.O. Box 82263
Baton Rouge, LA 70884-2263
Dear [Sir or Madam]:
I am the chief financial officer of [firm's name and address]. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage [insert "and closure and/or post-closure care" if applicable] as specified in LAC 33:V.Chapter 37.
[Fill out the following paragraph regarding facilities and liability coverage. If there are no facilities that belong in a particular paragraph, write "none" in the space indicated. For each facility, include its EPA Identification Number, name, and address.]
The firm identified above is the owner or operator of the following facilities for which liability coverage for [insert "sudden" or "non-sudden" or "both sudden and non-sudden"] accidental occurrences is being demonstrated through the financial test specified in LAC 33:V.Chapter 37.
The firm identified above guarantees, through the guarantee specified in LAC 33:V.Chapter 37, liability coverage for [insert "sudden" or "non-sudden" or "both sudden and non-sudden"] accidental occurrences at the following facilities owned and operated by the following: . The firm identified above is [insert one or more: (1) the direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee ; or (3) engaged in the following substantial business relationship with the owner or operator , and receiving the following value in consideration of this guarantee]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter]. [If you are using the financial test to demonstrate coverage of both liability and closure and post-closure care, fill in the following four paragraphs regarding facilities and associated closure and post-closure cost estimates. If there are no facilities that belong in a particular paragraph, write "none" in the space indicated. For each facility, include its EPA Identification Number, name, address, and current closure and/or post-closure cost estimates. Identify each cost estimate as to whether it is for closure or post-closure care.]

1. The firm identified above owns or operates the following facilities for which financial assurance for closure or post-closure care or liability coverage is demonstrated through the financial test specified in LAC 33:V.Chapters 37 and 43. The current closure and/or post-closure cost estimates covered by the test are shown for each facility:

2. The firm identified above guarantees, through the guarantee specified in LAC 33:V.Chapters 37 and 43, the closure and post-closure care or liability coverage of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility:

3. In states other than Louisiana, this firm is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in LAC 33:V.Chapters 37 and 43. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility:

4. The firm identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to the U.S. Environmental Protection Agency or to a state through the financial test or any other financial assurance mechanism in LAC 33:V.Chapters 37 and 43 or equivalent or substantially equivalent state mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: [Fill out the following three paragraphs regarding facilities and associated assured costs. If your firm has no facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number, name, address, and amount of assured costs.]

5. This firm is the owner or operator or guarantor of the following UIC facilities for which financial assurance for plugging and abandonment is required Environmental Quality 68 under the applicable regulations of the Louisiana Department of Natural Resources and is assured through a financial test. The current closure cost estimates as required by LDNR are shown for each facility:

6. This firm is the owner or operator or guarantor of the following petroleum underground storage tank facilities for which financial assurance is required under 40 CFR Part 280 and is assured through a financial test. The amount of assurance required is shown for each facility: .

7. This firm is the owner or operator or guarantor of the following PCB commercial storage facilities for which financial assurance is required under 40 CFR Part 761 and is assured through a financial test. The amount of assurance required is shown for each facility:
This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year. The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed year, ended [date].
[Fill in Part A if you are using the financial test to demonstrate coverage only for the liability requirements under LAC 33:V.Chapters 37 and 43.] PART A. LIABILITY COVERAGE FOR SUDDEN AND NON-SUDDEN OCCURRENCES
[Fill in Alternative I if the first criteria of LAC 33:V.3707.F.1 or 4411.F.1 are used. Fill in Alternative II if the second criteria of LAC 33:V.3707.F.1 or 4411.F.1 are used.]
ALTERNATIVE I
1. Sum of required sudden and non-sudden liability coverage: $
*2. Tangible net worth: $

*3. Total assets in the U.S. (required only if less than 90% of the firm's assets are located in the U.S.): $ YES No
4. Is line 2 minus line 1 at least $10 million?
*5. Is line 3 greater than six times line 1 (required only if less than 90% of firm's assets are located in the U.S.)?
6. Does the firm answer YES to both questions 4 and 5?
ALTERNATIVE II
1. Amount of annual aggregate liability coverage to be demonstrated: $
2. Current bond rating of most recent issuance and name of rating service:
3. Date of issuance of bond:
4. Date of maturity of bond:
*5. Tangible net worth: $
*6. Total assets in U.S. (required only if less than 90 percent of assets are located in the U.S.): $
YES No
7. Is line 5 minus line 1 at least $10 million?
*8. Is line 6 greater than six times line 1 (required only if less than 90 percent of firm's assets are located in the U.S.)?
[Fill in Part B if you are using the financial test to demonstrate assurance of both liability coverage and closure or post-closure care.]
PART B. CLOSURE OR POST-CLOSURE CARE AND LIABILITY COVERAGE
[Fill in Alternative I if the first criteria of LAC 33:V.3707.F.1, 3711.F.1, and 3715.F.1 or if the first criteria of LAC 33:V.4403.E.1 or 4407.E.1 and 4411.F.1 are used. Fill in Alternative II if the second criteria of LAC 33:V.3707.F.1, 3711.F.1, and 3715.F.1 or if the second criteria of LAC 33:V.4403.E.1 or 4407.E.1 and 4411.F.1 are used.]
ALTERNATIVE I
1. Sum of current closure and post-closure cost estimates and other environmental costs to be assured (total of all cost estimates listed above): $
2. Amount of annual aggregate liability coverage to be demonstrated: $
3. Sum of lines 1 and 2: $
*4. Total liabilities (if any portion of your closure or post-closure cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6): $
*5. Tangible net worth: $
*6. Net worth: $
*7. The sum of net income plus depreciation, depletion, and amortization: $
*8. Total assets in the U.S. (required only if less than 90 percent of firm's assets are located in the U.S.): $
YES NO
9. Is line 5 minus line 3 at least $10 million?
10. Is line 4 divided by line 6 less than 1.5?
11. Is line 7 divided by line 4 greater than 0.1?
*12. Is line 8 greater than six times line 3 (required only if less than 90 percent of firm's assets are located in the U.S.)?
13. Does the firm answer YES to either question 10 or 11, and questions 9 and 12?
ALTERNATIVE II
1. Sum of current closure and post-closure cost estimates and other environmental costs to be assured (total of all cost estimates listed above): $
2. Amount of annual aggregate liability coverage to be demonstrated: $

3. Sum of lines 1 and 2: $
4. Current bond rating of most recent issuance and name of rating service:
5. Date of issuance of bond:
6. Date of maturity of bond:
*7. Tangible net worth (if any portion of the closure or post-closure cost estimates is included in "total liabilities" on your financial statements you may add that portion to this line): $
*8. Total assets in the U.S. (required only if less than 90 percent of assets are located in the U.S.): $
YES NO
9. Is line 7 minus line 3 at least $10 million?
*10. Is line 8 greater than six times line 1 (required only if less than 90 percent of firm's assets are located in the U.S.)?
I hereby certify that the wording of this letter is identical to the wording specified in LAC 33:V.3719.G as such regulations were constituted on the date shown immediately below.
[Signature]
[Name]
[Title]
[Date]

Response: Cytec uses a liability coverage guarantee worded consistent with LAC 33:V.3719.G., Part B, Alternate II. A copy of Cytec's most recent financial assurance demonstration is included in Appendix W.

H. Corporate Guarantees

Response: The requirements of LAC 33:V.3719.H.-N. do not apply to Cytec because Cytec uses a liability coverage guarantee as specified in LAC 33:V.3719.G to meet the closure, post-closure and liability coverage requirements.