

DRAFT
HAZARDOUS WASTE
OPERATING PERMIT

LOCKHEED MARTIN
MICHOU D ASSEMBLY FACILITY
TANKS AND CONTAINER STORAGE
LAD 4800014587-OP-RN-1
AGENCY INTEREST #9145
PER19970001

FILE ROOM COPY

**FACT
SHEET**

FACT SHEET

FOR THE DRAFT HAZARDOUS WASTE PERMIT RENEWAL
PREPARED FOR

Lockheed Martin
NASA Michoud Assembly Facility

EPA ID# LA 4800014587
Agency Interest # 9145

13800 Old Gentilly Road
New Orleans, Louisiana
New Orleans Parish

Permit Number LA 4800014587-OP-RN-1
PER19970001

I. INTRODUCTION

This fact sheet has been developed in accordance with the Louisiana Administrative Code (LAC) 33:V.703.D and briefly sets forth principal and significant facts, legal, methodological and policy requirements of the proposed draft hazardous waste permit for Lockheed Martin/U.S. NASA, EPA ID Number LA 4800014587, Agency Interest Number 9145, for the facility located in New Orleans, Orleans Parish, Louisiana.

The Louisiana Department of Environmental Quality (LDEQ) has prepared this proposed draft hazardous waste permit which addresses the requirements of LAC Title 33, Part V, Subpart 1 and the Federal Resource Conservation and Recovery Act (RCRA) as amended by the 1984 Hazardous and Solid Waste Amendments (HSWA).

Lockheed Martin is seeking a hazardous waste permit to operate three storage tanks (130-T12-HW, 131-T13-HW, and 318-T3-HW), one container storage unit (Drum Storage Facility) and to govern corrective action at the Michoud Assembly Facility.

II. THE PERMITTING PROCESS

The purpose of this fact sheet is to initiate the permitting decision process. The LDEQ's Water and Waste Permits Division is required to prepare this draft hazardous waste permit. The draft hazardous waste permit sets forth all the applicable conditions, which the permittee is required to comply with during the life of the permit. Lockheed Martin submitted its Hazardous Waste Part B Permit Renewal Application, dated June 6, 1997, to comply with the Environmental Protection Agency (EPA) regulations requiring the ten year permit renewal for facilities that are permitted to treat, store or dispose of hazardous waste under Subtitle C of the Resource Conservation and Recovery Act (RCRA).

The permitting process will afford the LDEQ, interested citizens, and other agencies the opportunity to evaluate the ability of the permittee to comply with the requirements of the LAC 33:V, Subpart 1, and the Hazardous and Solid Waste Amendments (HSWA) portion.

The public is given a minimum of forty-five (45) days to review and comment on the draft permit. The administrative authority, prior to making a decision or taking any final action on the draft permit, will consider all significant comments. The decision of the administrative authority shall be to issue, deny, modify, or revoke the draft permit in accordance with LAC 33:V.705.

A. NEW DRAFT HAZARDOUS WASTE PERMIT

The Water and Waste Permits Division reviewed the permit application and other pertinent technical information, and prepared a draft permit that contains the language that pertains to the operation of the listed facilities.

This draft hazardous waste permit is a tentative determination and is not the final decision of the administrative authority.

B. PUBLIC COMMENT PERIOD

LAC 33:V.715 requires that the public be given at least forty-five (45) days to comment on a draft permit decision.

The specific dates for the opening and closing of the public comment period are contained in the public notice that was issued for this particular permitting action. Any person interested in commenting on the draft permit for the Michoud Assembly Facility must do so within the allotted forty-five (45) day comment period.

A public hearing for the draft permit will be held on the date, and at the location and time provided in the public notice (See the attached notice in the Public Participation Section of the Draft Permit). LDEQ will hold the hearing at least forty-five (45) days after the date on which the public notice is given.

Public notice of the proposed permitting action and of the hearing shall be published in specified newspapers, announced on the designated radio station, and mailed to those persons contained on the facility's mailing list.

C. LOCATIONS OF AVAILABLE INFORMATION

The administrative record, including all supporting documents, is on file at the LDEQ Public Records Center, Room 1-127, 602 North 5th Street, Baton Rouge, Louisiana. These documents may be inspected and copied (at \$0.25 per copy page) at any time

between the hours of 8:00 to 4:30 p.m., Monday through Friday (except holidays).

In addition, a copy of the draft permit, fact sheet, and supporting documents are available for review at the New Orleans Parish Library, East New Orleans Regional Branch, 5641 Read Blvd. New Orleans, Louisiana 70127.

D. WRITTEN COMMENT SUBMISSION

Interested persons may submit written comments on the draft permit to the administrative authority, at the address listed below, on the closing date of the comment period. All comments should include:

1. the name and address of the commenter,
2. a concise statement of the exact basis for any comment and supporting relevant facts upon which the comment is based,
3. identification of the facility commented on (the EPA Identification Number and AI number), and
4. supporting relevant facts upon which the comments are based.

All comments, further requests for information (including copies of this decision and fact sheet) and any requests by public interest groups or individuals who would like to be included in the mailing list, should be made in writing to

Ms. Soumaya Ghosn
Louisiana Department of Environmental Quality
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313
(225) 219-3276 or fax (225) 219-3309

Any technical questions regarding this draft permit should be addressed to:

Mr. Willard F. Steele
Louisiana Department of Environmental Quality
Office of Environmental Services
Water and Waste Permits Division
Post Office Box 4313
Baton Rouge, LA 70821-4313
(225) 219-3134 or fax (225) 219-3158

III. DESCRIPTION OF OVERALL SITE

The Michoud Assembly Facility is a component installation of the George C. Marshall Space Flight Center. Lockheed Martin operates the Michoud Assembly Facility for the U.S. NASA, the owner of the facility. The primary product manufactured at the Michoud Assembly Facility is the external tank for the U.S. Space Shuttle Program. The manufacturing activities associated with producing the Space Shuttle External Fuel Tank include system engineering, engineering design, metal cleaning, coating and fabrication, assembly, testing, lab analysis and checkout. A number of different waste listings are created as a by-product of the manufacture of the external fuel tank. This draft permit is for the storage of the hazardous waste in three tanks and one container storage unit.

IV. HAZARDOUS WASTE FACILITIES

The Michoud Assembly Facility has three hazardous waste storage tanks, 130-T12-HW, 131-T13-HW and 318-T3-HW and one hazardous waste container storage unit, Building 159, the Drum Storage Facility for the storage of waste generated on-site. All wastes addressed in this draft permit are generated on-site and Michoud Assembly Facility does not accept off-site waste. Lockheed Martin does not treat or dispose of any hazardous waste on-site. The wastes generated and stored at the Michoud Assembly Facility are eventually shipped to an authorized hazardous waste treatment or disposal facilities.

V. FINANCIAL AND LIABILITY REQUIREMENTS

The Michoud Assembly Facility is a federal facility. As the operator of a federally owned facility, Lockheed Martin is not required to submit documentation to satisfy the financial assurance and liability requirements of LAC 33:V, Chapters 37.

VI. IT QUESTION SUMMARY OF ANALYSIS

Pursuant to LA. R.S.30:2018.E.3, this draft hazardous waste permit is subject to the requirements regarding environmental assessment statements or IT Analysis (Save Ourselves v. La. Env'tl. Control Comm'n, 452 So. 2d 1152, 1159. La. 1984). This is a preliminary analysis based on information currently available to the LDEQ.

A. **The potential and real adverse environmental effects of the proposed project have been avoided to the maximum extent possible.**

Lockheed Martin submitted its Part B Permit Renewal Application for the existing Michoud Assembly Facility, which includes three tanks and one container storage unit. These units were permitted under the previous permit. This permit renewal does not propose the alteration of waste classifications, codes or characteristics.

In addition Lockheed Martin has closed or is in the process of closing all units that were involved in the treatment and disposal of hazardous waste. The design and operation of all remaining storage units will follow the regulations to prevent the infiltration of any stored material into the environment. These actions minimize the potential and real adverse environmental effects of handling hazardous waste to the maximum extent possible.

B. A cost benefit analysis of the environmental impact balanced against the social and economic benefits of the project demonstrates that the social and economic benefits outweigh environmental impacts.

This is an existing facility submitting an application for permitting of its existing, hazardous waste storage units. The Michoud Assembly Facility has been in operation for several decades. Lockheed Martin has reduced the hazardous waste processing and handling activities from what had been written in the previous hazardous waste permit.

Over 2,000 area residents are employed at the Michoud Assembly Facility. Both the state and local economies benefit from the provision of employment and tax revenue at the Michoud Assembly Facility. The proposed permit is an important factor for the continued operation of the Michoud Assembly Facility.

The proposed permit should have little or no affect on property values or public costs as they pertain to the economics of the local community, since the Michoud Assembly Facility is an existing facility. The proposed permit renewal should not promote the need for additional fire protection, police, medical facilities, or roads.

C. There are no alternative projects or alternative sites or mitigating measures which offer more protection to the environment than the proposed project without unduly curtailing non-environmental benefits to the extent applicable.

1. ALTERNATIVE PROJECTS

This draft permit renewal is for hazardous waste storage units that were operating under the terms of a previously issued hazardous waste permit. Additionally, the number of hazardous waste units to be permitted has been reduced from the previous permit. The remaining permitted units are important to the operation of the Michoud Assembly Facility. There appears to be no known alternative projects that would offer more protection to the environment than permitting the existing facilities without unduly curtailing non-environmental benefits.

2. ALTERNATIVE SITE

This draft permit renewal is for an existing facility. The hazardous waste units to be permitted will store hazardous waste that is generated on-site and are necessary for the continued operation of the Michoud Assembly Facility. Relocating these units to a different existing or new location could result in greater environmental impact due to siting and transportation considerations, as well as increased hazardous waste production and transportation.

3. MITIGATING MEASURES

The Michoud Assembly Facility is an existing facility that produces hazardous waste as a by-product of the manufacturing of the external tanks for the space shuttle. No mitigating measures would offer more protection to the environment than permitting existing storage units without unduly curtailing non-environmental benefits.

**SIGNATURE
PAGE**

DRAFT PERMIT

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

**OPERATING PERMIT
FOR HAZARDOUS WASTE STORAGE
MICHOU D ASSEMBLY FACILITY**

PERMITTEE: LOCKHEED MARTIN

PERMIT NUMBER: LA4800014587-OP-RN-1
Agency Interest # 9145/ Activity # 19970001

FACILITY LOCATION: 13800 OLD GENTILLY ROAD
NEW ORLEANS, LOUISIANA, 70129

This permit is issued by the Louisiana Department of Environmental Quality (LDEQ) under the authority of the Louisiana Hazardous Waste Control Law R.S. 20:2171 et seq., and the regulations adopted thereunder and under the authority of the 1984 Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA) to Lockheed Martin, (hereafter called the Permittee), to operate a hazardous waste Treatment, Storage and Disposal (TSD) facility located at New Orleans, Louisiana, at latitude 30° 01' 015" and longitude 89° 55' 000."

For the purposes of this permit, the "Administrative Authority" shall be the Secretary of the Louisiana Department of Environmental Quality, or his/her designee.

The permittee must comply with all terms and conditions of this permit. This permit consists of the conditions contained herein and the applicable regulations as specified in the permit. Applicable regulations are those which are in effect on the effective date of issuance of this permit.

This permit is based on the assumption that the information provided to LDEQ by the Permittee is accurate. Further, this permit is based in part on the provisions of Sections 206, 212, and 224 of the HSWA of 1984, which modify Section 3004 and 3005 of RCRA. In particular, Section 206 requires corrective action for all releases of hazardous waste or constituents from any solid waste management unit at a treatment, storage or disposal facility seeking a permit, regardless of the time at which waste was placed in such unit.

Section 212 provides authority to review and modify the permit at any time. Any inaccuracies found in the submitted information may be grounds for the termination, modification, revocation, and reissuance of this permit (see LAC 33:V.323) and potential enforcement action. The Permittee must inform the LDEQ of any deviation from or changes in the information in the application which would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

This permit shall be effective as of _____, and shall remain in effect until _____, unless revoked, reissued, modified or terminated in accordance with LAC 33:V.323 and 705 of the Louisiana Hazardous Waste Regulations. The Administrative Authority may issue any permit for a duration that is less than the maximum term of ten (10) years and the term shall not be extended beyond the maximum duration by modification in accordance with LAC 33:V.315.

Provisions of this permit may be appealed in writing pursuant to LA. R.S. 30:2024(A) within 30 days from receipt of the permit. Only those provisions specifically appealed will be suspended by a request for hearing, unless the secretary or the assistant secretary elects to suspend other provisions as well. A request for hearing must be sent to the following:

Louisiana Department of Environmental Quality
Office of the Secretary
Attention: Hearings Clerk, Legal Services Division
Post Office Box 4302
Baton Rouge, Louisiana 70821-4302

DRAFT

Chuck Carr Brown, Ph.D., Assistant Secretary
Louisiana Department of Environmental Quality

Date

**PUBLIC
PARTICIPATION**

PUBLIC NOTICE
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ)
U.S. NASA / LOCKHEED MARTIN / MICHLOUD ASSEMBLY FACILITY
PUBLIC HEARING AND REQUEST FOR PUBLIC COMMENT ON
A DRAFT HAZARDOUS WASTE PERMIT RENEWAL

The LDEQ, Office of Environmental Services, will conduct a public hearing to receive comments on a draft hazardous waste permit renewal for U.S. NASA / Lockheed Martin, P.O. Box 29304, New Orleans, LA 70189 for the Michoud Assembly Facility. **The facility is located 13800 Old Gentilly Road, New Orleans, LA 70129, Orleans Parish.**

The hearing will be held on Tuesday, September 13, 2005, beginning at 6:00 p.m., at the Orleans Parish Public Library - East New Orleans Regional Branch, 5641 Read Boulevard, New Orleans, LA 70127. During the hearing, all interested persons will have an opportunity to comment on the draft permit.

U.S. NASA / Lockheed Martin proposes to renew a hazardous waste permit for the operation of three hazardous waste storage tanks and one hazardous waste container storage unit. The original permit was issued on December 10, 1987. The operations at the Michoud Assembly Facility consist of activities associated with the manufacture of the external tank for the Space Shuttle including metal cleaning, coating and fabrication, assembly, testing and lab analysis. From the above listed activities, spent solvents and other by-products are created as hazardous waste. The waste is placed in storage tanks and a container storage unit prior to shipment off-site to an authorized hazardous waste disposal or treatment facility. No hazardous waste is treated or disposed of on-site.

Written comments or written requests for notification of the final permit decision regarding this permit may also be submitted to Ms. Soumaya Ghosn at LDEQ, Public Participation Group, P.O. Box 4313, Baton Rouge, LA 70821-4313. **Written comments and/or written requests for notification must be received by 12:30 p.m., Thursday, September 15, 2005.** Written comments will be considered prior to a final permit decision.

LDEQ will send notification of the final permit decision to the applicant and to each person who has submitted written comments or a written request for notification of the final decision.

The draft hazardous waste permit renewal, permit application and "IT question summary" also known as environmental assessment statement are available for review at the LDEQ, Public Records Center, Room 127, 602 North 5th Street, Baton Rouge, LA. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). Additional copies may be reviewed at the New Orleans Public Library, East New Orleans Regional Branch, 5641 Read Boulevard, New Orleans, Louisiana 70127.

Individuals with a disability, who need an accommodation in order to participate in the public hearing, should contact Ms. Dina Heidar at the above address or by phone at (225) 219-3278.

Inquiries or requests for additional information regarding this permit action should be directed to Mr. Will F. Steele, LDEQ, Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, phone (225) 219-3134.

Persons wishing to be included on the LDEQ permit public notice mailing list should contact Ms. Soumaya Ghosn in writing at LDEQ, P.O. Box 4313, Baton Rouge, LA 70821-4313, phone (225) 219-3276, or by email at maillistrequest@ldeq.org.

Permit public notices can be viewed on the LDEQ Permits public Web page at [WWW.deq.state.la.us/news/PubNotice/](http://www.deq.state.la.us/news/PubNotice/).

Alternatively, individuals may elect to receive the permit public notices via email by subscribing to the LDEQ permits public notice List Server at http://www.state.la.us/ldbc/listservpage/ldeq_pn_listserv.htm.

All correspondence should specify AI Number 9145, Permit Number LAD 4800014587-OP-RN-1, and Activity Number PER19970001.

Publication Date: Tuesday, July 19, 2005

PART A
APPLICATION

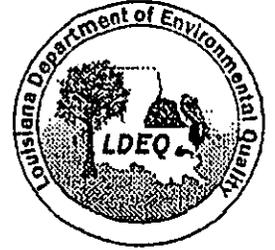
MAIL
COMPLETED FORM
TO:

LDEQ/OES/
 Environmental Assistance
 Division/CAS
 PO Box 4313
 Baton Rouge, LA
 70821-4313

United States Environmental Protection Agency
 and

STATE OF LOUISIANA

DEPARTMENT OF ENVIRONMENTAL QUALITY
NOTIFICATION OF HAZARDOUS WASTE ACTIVITY
RCRA SUBTITLE C-SITE IDENTIFICATION FORM



1. Reason for Submittal CHOOSE ONLY ONE REASON PER SUBMITTAL	A. Reason for Submittal: <input type="checkbox"/> To provide initial notification (to obtain an EPA ID Number for hazardous waste, universal waste, or used oil activities). <input type="checkbox"/> To provide subsequent notification (to update site identification information). or <input type="checkbox"/> As a component of a First RCRA Hazardous Waste Part A Permit Application. <input checked="" type="checkbox"/> As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment # _____). or <input type="checkbox"/> As a component of the Hazardous Waste Report.		
	B. Number of Employees: 3500		
2. Site EPA ID Number	EPA ID Number: LA4800014587		
3. Site Name	Legal Name: US NASA / LOCKHEED MARTIN		
4. Site Location (Physical address, NOT PO Box or Route)	Street Address: 13800 OLD GENTILLY ROAD		
	City, Town, or Village: NEW ORLEANS	State: LA	
	County/Parish Name: ORLEANS	Zip Code: 70129	
5. Site Land Type	Site Land Type: <input type="checkbox"/> Private <input type="checkbox"/> County/Parish <input type="checkbox"/> District <input checked="" type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other		
6. North American Industry Classification System (NAICS) Code(s)	A. 336419	B.	
	C.	D.	
7. Site Mailing Address	Street or P. O. Box: P.O. BOX 29304, Dept.3162		
	City, Town, or Village: NEW ORLEANS		
	State: LA		
	County/Parish Name: ORLEANS	Zip Code: 70189	
8. Site Contact Person	First Name: ALFONS	MI: M	Last Name: WIATER
	Phone Number: 504-257-1463		Phone Number Extension: N/A
9. Legal Owner and Operator of the Site (see instructions)	A. Name of Site's Legal Owner: US NASA		Date Became Owner (mm/dd/yyyy): 03/23/1962
	Owner Type: <input type="checkbox"/> Private <input type="checkbox"/> County/Parish <input type="checkbox"/> District <input checked="" type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other		
	B. Name of Site's Operator: LOCKHEED MARTIN		Date Became Operator (mm/dd/yyyy): 10/01/1983
Operator Type: <input checked="" type="checkbox"/> Private <input type="checkbox"/> County/Parish <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other			

10. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes)

A. Hazardous Waste Activities

1. Generator of Hazardous Waste

(Select one of the following categories)

- a. LQG: Greater than 1,000 kg/mo (2,200 lbs.) Non-acute hazardous waste; or
- b. SQG: 100 to 1,000 kg/mo (220 - 2,200 lbs.) Non-acute hazardous waste; or
- c. CESQG: Less than 100 kg/mo Non-acute hazardous waste
- d. NON-GENERATOR

In addition, indicate other generator activities (check all that apply)

- e. United States Importer of Hazardous Waste
- f. Mixed Waste (hazardous and radioactive) Generator

For Items 2 through 6, check all that apply:

- 2. Transporter of Hazardous Waste
 - Transfer Facility Status (Transporter status must be indicated above)
- 3. Treater, Storer, or Disposer of HW (at your site)

Note: A hazardous waste permit is required for this activity.

 - Permitted Interim Status Proposed
- 4. Recycler of Hazardous Waste (at your site)

Note: A hazardous waste permit may be required for this activity.
- 5. Exempt Boiler and/or Industrial Furnace
 - a. Small Quantity On-site Burner Exemption
 - b. Smelting, Melting, Refining Furnace Exemption
- 6. Underground Injection Control

B. Universal Waste Activities (Indicate Activity Type)

1. Large Quantity Handler of Universal Waste [refer to your State regulations to determine what is regulated]. Indicate types of universal waste generated and/or accumulated at your site. (check all boxes that apply):

	Generated	Accumulated
a. Batteries	<input type="checkbox"/>	<input type="checkbox"/>
b. Pesticides	<input type="checkbox"/>	<input type="checkbox"/>
c. Thermostats	<input type="checkbox"/>	<input type="checkbox"/>
d. Lamps	<input type="checkbox"/>	<input type="checkbox"/>
e. Antifreeze	<input type="checkbox"/>	<input type="checkbox"/>

2. Destination Facility for Universal Waste

Note: A hazardous waste permit may be required for this activity.

C. Used Oil Activities (Indicate Activity Type)

- 1. Used Oil Transporter
 - a. Transporter
 - b. Transfer Facility
- 2. Used Oil Processor and/or Re-refiner
 - a. Processor
 - b. Re-refiner
- 3. Off-Specification Used Oil Burner
- 4. Used Oil Fuel Marketer
 - a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
 - b. Marketer Who First Claims the Used Oil Meets the Specifications
- 5. Used Oil Fuel Burner (Indicate Combustion Device(s))
 - Utility Boiler Industrial Boiler Industrial Furnace

11. Description of Hazardous Wastes

A. Waste Codes for Federally Regulated Hazardous Wastes. Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.

D001	D002	D003	D004	D005	D006	D007
D008	D009	D010	D011	D018	D019	D021

B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes. Please list the waste codes of the State-regulated hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed for waste codes.

12. Comments

Section 11, Box A Continued; D022, D027, D028, D029, D035, D038, D039, D040, D041, D043, F001, F002, F003, F005, F007, F008, F009, F019, P024, P028, P030, P077, P105, P106, P116, U002, U003, U007, U008, U012, U020, U031, U037, U041, U048, U052, U053, U055, U056, U057, U070, U072, U080, U093, U102, U108, U110, U112, U113, U119, U121, U122, U123, U125, U128, U131, U134, U147, U151, U154, U159, U160, U161, U162, U164, U165, U166, U167, U170, U171, U188, U191, U196, U201, U208, U210, U213, U218, U220, U223, U225, U226, U228, U236, U239, U328, U353, U359, P029, P098, U144, U219.

13. 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 of owner, operator, or an authorized representative	Name and Official Title (type or print)	Date Signed (mm-dd-yyyy)
	Marshall D. Byrd Vice President and General Manager Michoud Operations Lockhead Martin Space Systems Company	11-10-2004

United States Environmental Protection Agency
HAZARDOUS WASTE PERMIT INFORMATION FORM

1. Facility Permit Contact (See instructions on page 35)	First Name: Same as Site Contact	MI:	Last Name:
	Phone Number:		Phone Number Extension:
2. Facility Permit Contact Mailing Address (See instructions on page 35)	Street or P.O. Box: Same as Site Contact		
	City, Town, or Village:		
	State:		
	Country:	Zip Code:	
3. Legal Owner Mailing Address and Telephone Number (See instructions on page 36)	Street or P.O. Box: P. O. Box 29300		
	City, Town, or Village: New Orleans		
	State: Louisiana		
	Country: USA	Zip Code: 70189	Phone Number: 504-257-2601
4. Operator Mailing Address and Telephone Number (See instructions on page 36)	Street or P.O. Box: P. O. Box 29304, Dept. 3162		
	City, Town, or Village: New Orleans		
	State: Louisiana		
	Country: USA	Zip Code: 70189	Phone Number: 504-257-1463
5. Facility Existence Date (See instructions on page 36)	Facility Existence Date (mm/dd/yyyy): 01/01/1940		

6. Other Environmental Permits (See instructions on page 36)			
A. Permit Type (Enter code)	B. Permit Number		C. Description
N	L A 0 0 5 2 2 5 6		NPDES
R	L A 4 8 0 0 0 1 4 5 8 7		RCRA and State of Louisiana Hazardous Waste
E	W P 0 9 8 9		State discharges to surface water
E	2 7 2 0 V 0		Title V Air (SLA Production Areas)
E	2 7 4 0 V 0		Title V Air (Primary Production Areas)
E	2 4 7 4 V 1		Title V Air Groundwater Stripper
E	2 6 9 2 V 0		Title V Air (Utility Point Sources)

7. Nature of Business (Provide a brief description; see instructions on page 37)

8. Process Codes and Design Capacities (See instructions on page 37)

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 9.

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 in column B(2) from the list of unit of measure codes below that describes the unit of measure used. Select only from the units of measure in this list.

C. PROCESS TOTAL NUMBER OF UNITS - Enter the total number of units for each corresponding process code.

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
D79	Underground Injection Well Disposal	Gallons; Liters; Gallons Per Day; or Liters Per Day	T81	Cement Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Hour
D80	Landfill	Acre-feet; Hectares-meter; Acres; Cable Meters; Rectangular; Cubic Yards	T82	Lime Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Hour
D81	Lead Treatment	Acre or Hectare	T83	Aggregate Kiln	Tons Per Hour; Short Tons Per Hour; Btu Per Hour; Liters Per Hour; Kilograms Per Hour; or Million Btu Per Hour
D82	Open Disposal	Gallons Per Day or Liters Per Day	T84	Phosphate Kiln	Tons Per Hour; Short Tons Per Hour; Btu Per Hour; Liters Per Hour; Kilograms Per Hour; or Million Btu Per Hour
D83	Surface Impoundment Disposal	Gallons; Liters; Cubic Meters; or Cubic Yards	T85	Color Oven	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; or Million Btu Per Hour
D99	Other Disposal	Any Unit of Measure Listed Below	T86	Blow Furnace	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; or Million Btu Per Hour
S91	Sludge		T87	Smelting, Melting, or Refining Furnace	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; or Million Btu Per Hour
S92	Coastal	Gallons; Liters; Cubic Meters; or Cubic Yards	T88	Titanium Dioxide Chloride Oxidation Reactor	Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; Gallons Per Hour; Liters Per Hour; or Million Btu Per Hour
S93	Tank Storage	Gallons; Liters; Cubic Meters; or Cubic Yards	T89	Methane Reforming Furnace	Per Hour; Gallons Per Hour; Liters Per Hour; or Million Btu Per Hour
S94	Waste Pile	Cubic Yards or Cubic Meters	T90	Pulping Liquor Recovery Furnace	Per Hour; Gallons Per Hour; Liters Per Hour; or Million Btu Per Hour
S95	Surface Impoundment Storage	Gallons; Liters; Acres; Cable Meters; Hectares; or Cubic Yards	T91	Combustion Device Used in the Recovery of Sulfur Values from Spent Sulfuric Acid	Per Hour; Gallons Per Hour; Liters Per Hour; or Million Btu Per Hour
S96	Drip Pad	Cubic Yards or Cubic Meters	T92	Halogen Acid Furnaces	Per Hour; Gallons Per Hour; Liters Per Hour; or Million Btu Per Hour
S97	Containment Building Storage	Cubic Yards or Cubic Meters	T93	Other Industrial Furnaces Listed in 40 CFR §260.10	Per Hour; Gallons Per Hour; Liters Per Hour; or Million Btu Per Hour
S98	Other Storage	Any Unit of Measure Listed Below	T94	Containment Building - Treatment	Cubic Yards; Cubic Meters; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; Btu Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; Gallons Per Day; Liters Per Day; or Million Btu Per Hour
T01	Treatment Tank Treatment	Gallons Per Day; Liters Per Day; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; or Metric Tons Per Hour	X01	Miscellaneous (Subpart X)	
T02	Surface Impoundment Treatment	Gallons Per Day; Liters Per Day; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; or Metric Tons Per Hour	X02	Open Burning/Open Detonation Mechanical Processing	Any Unit of Measure Listed Below
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; Btu Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million Btu Per Hour	X03	Thermal Unit	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; or Million Btu 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; Btu Per Hour; Gallons Per Day; Liters Per Hour; or Million Btu Per Hour	X04	Geologic Repository	Cubic Yards; Cubic Meters; Acre-feet; Hectares-meter; Gallons; or Liters
T99	Boiler	Gallons; Liters; Gallons Per Hour; Liters Per Hour; Btu Per Hour; or Million Btu Per Hour	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
Liter.....	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	Hectares-meter.....	P
		Million Btu Per Hour.....	X	Btu Per Hour.....	I

8. Process Codes and Design Capacities (Continued)

EXAMPLE FOR COMPLETING Item 8 (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			C. Process Total Number of Units	D. Description of Process (For Official Use Only)
		(1) Amount (Specify)	(2) Unit of Measure (Enter code)			
X 1	S 0 2	5 3 3 . 7 8 8	G	0 0 1		
1	S 0 2	3, 3 0 0 . 0 0 0	G	0 0 1		
2	S 0 2	3, 2 0 0 . 0 0 0	G	0 0 1		
3	S 0 2	2, 0 0 0 . 0 0 0	G	0 0 1		
4	S 0 1	1 7 6, 4 9 5 . 0 0 0	G	0 0 1		
5						
6						
7						
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 9.

9. Other Processes (See instructions on page 17 and follow instructions from Item 8 for D99, S99, T04 and X99 process codes)

Line Number (Enter the sequence with Item 8)	A. Process Code (From list above)	B. PROCESS DESIGN CAPACITY		C. Process Total Number of Units	D. Description of Process
		(1) Amount (Specify)	(2) Unit of Measure (Enter code)		
X 1	T 0 4				In-situ Vitification
1					
2					
3					
4					

10. Description of Hazardous Wastes (See instructions on page 37)

- 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 Items 8A and 9A on page 3 to indicate the waste will be stored, treated, and/or disposed 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 Items 8A and 9A 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 10.D(1).
3. Use additional sheet, enter line number from previous sheet, and enter additional code(s) in item 10.E.

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in item 10.D(2) or in item 10.E(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 10 (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 operations. 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 Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES			
				(1) PROCESS CODES (Enter code)			(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

10. Description of Hazardous Wastes (Continued; use additional sheets as necessary)							
Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES			(2) PROCESS DESCRIPTION (If a code is not entered in D(1))
				(1) PROCESS CODES (Enter code)			
1	D 0 0 1	125	T	S 0 1	S 0 2		
2	D 0 0 2	3	T	S 0 1			
3	D 0 0 3	2	T	S 0 1			
4	D 0 0 4	100	P	S 0 1	S 0 2		
5	D 0 0 5	100	P	S 0 1			
6	D 0 0 6	35	T	S 0 1			
7	D 0 0 7						Included with above
8	D 0 0 8						Included with above
9	D 0 0 9	25	P	S 0 1			
1 0	D 0 1 0	100	P	S 0 1			
1 1	D 0 1 1	10	T	S 0 1			
1 2	D 0 1 8	500	P	S 0 1			
1 3	D 0 1 9	100	P	S 0 1			
1 4	D 0 2 1	100	P	S 0 1			
1 5	D 0 2 2	10	P	S 0 1			
1 6	D 0 2 7	10	P	S 0 1			
1 7	D 0 2 8	100	P	S 0 1			
1 8	D 0 3 8	500	P	S 0 1			
1 9	D 0 3 9	3	T	S 0 1			
2 0	D 0 4 1	10	P	S 0 1			
2 1	F 0 0 1	2000	T	S 0 1	S 0 2		
2 2	F 0 0 2						Included with above
2 3	D 0 4 3						Included with above
2 4	F 0 0 3	50	T	S 0 1	S 0 2		
2 5	F 0 0 5						Included with above
2 6	D 0 2 9						Included with above
2 7	D 0 3 5						Included with above
2 8	D 0 4 0						Included with above
2 9	F 0 0 7	500	P	S 0 1			
3 0	F 0 0 8						Included with above
3 1	F 0 0 9						Included with above
3 2	F 0 1 9	212	T	S 0 1			
3 3	P 0 2 4	30	P	S 0 1			

10. Description of Hazardous Wastes (Continued; Additional Sheet)				E. PROCESSES			
Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	(1) PROCESS CODES (Enter code)			(2) PROCESS DESCRIPTION (If a code is not entered in E(1))
3 4	P 0 2 8	35	P	S	0	1	
3 5	P 0 3 0	35	P	S	0	1	
3 6	P 0 7 7	500	P	S	0	1	
3 7	P 1 0 5	15	P	S	0	1	
3 8	P 1 0 6	500	P	S	0	1	
3 9	P 1 1 6	500	P	S	0	1	
4 0	U 0 0 2	500	P	S	0	1	
4 1	U 0 0 3	100	P	S	0	1	
4 2	U 0 0 7	100	P	S	0	1	
4 3	U 0 0 8	100	P	S	0	1	
4 4	U 0 1 2	10	P	S	0	1	
4 5	U 0 2 0	10	P	S	0	1	
4 6	U 0 3 1	500	P	S	0	1	
4 7	U 0 3 7	100	P	S	0	1	
4 8	U 0 4 1	100	P	S	0	1	
4 9	U 0 4 8	10	P	S	0	1	
5 0	U 0 5 2	10	P	S	0	1	
5 1	U 0 5 3	10	P	S	0	1	
5 2	U 0 5 5	10	P	S	0	1	
5 3	U 0 5 6	100	P	S	0	1	
5 4	U 0 5 7	10	P	S	0	1	
5 5	U 0 7 0	10	P	S	0	1	
5 6	U 0 7 2	10	P	S	0	1	
5 7	U 0 8 0	500	P	S	0	1	
5 8	U 0 9 3	100	P	S	0	1	
5 9	U 1 0 2	10	P	S	0	1	
6 0	U 1 0 8	10	P	S	0	1	
6 1	U 1 1 0	10	P	S	0	1	
6 2	U 1 1 2	10	P	S	0	1	
6 3	U 1 1 3	10	P	S	0	1	
6 4	U 1 1 9	10	P	S	0	1	
6 6	U 1 2 1	100	P	S	0	1	
6 6	U 1 2 2	50	P	S	0	1	

10. Description of Hazardous Wastes (Continued; Additional Sheet)							E. PROCESSES				
Line Number	A. EPA Hazardous Waste No. (Enter code)			B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	(1) PROCESS CODES (Enter code)			(2) PROCESS DESCRIPTION (If a code is not entered in E(1))		
6 7	U	1	2	3	100	P	S	0	1		
6 8	U	1	2	5	10	P	S	0	1		
6 9	U	1	2	8	100	P	S	0	1		
7 0	U	1	3	1	100	P	S	0	1		
7 1	U	1	3	4	100	P	S	0	1		
7 2	U	1	4	7	10	P	S	0	1		
7 3	U	1	5	1	25	P	S	0	1		
7 4	U	1	5	4	1800	P	S	0	1		
7 5	U	1	5	9	1000	P	S	0	1		
7 6	U	1	6	0	500	P	S	0	1		
7 7	U	1	6	1	500	P	S	0	1		
7 8	U	1	6	2	10	P	S	0	1		
7 9	U	1	6	4	10	P	S	0	1		
8 0	U	1	6	5	100	P	S	0	1		
8 1	U	1	6	6	10	P	S	0	1		
8 2	U	1	6	7	10	P	S	0	1		
8 3	U	1	7	0	10	P	S	0	1		
8 4	U	1	7	1	10	P	S	0	1		
8 5	U	1	8	8	10	P	S	0	1		
8 6	U	1	9	1	10	P	S	0	1		
8 7	U	1	9	6	100	P	S	0	1		
8 8	U	2	0	1	10	P	S	0	1		
8 9	U	2	0	8	100	P	S	0	1		
9 0	U	2	1	0	100	P	S	0	1		
9 1	U	2	1	3	10	P	S	0	1		
9 2	U	2	1	8	100	P	S	0	1		
9 3	U	2	2	0	500	P	S	0	1		
9 4	U	2	2	3	100	P	S	0	1		
9 5	U	2	2	5	10	P	S	0	1		
9 6	U	2	2	6	10	P	S	0	1		
9 7	U	2	2	8	10	P	S	0	1		
9 8	U	2	3	8	100	P	S	0	1		
9 9	U	2	3	9	100	P	S	0	1		

11. Map (See Instructions on page 38)

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.

12. Facility Drawing (See instructions on page 39)

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

13. Photographs (See Instructions on page 39)

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).

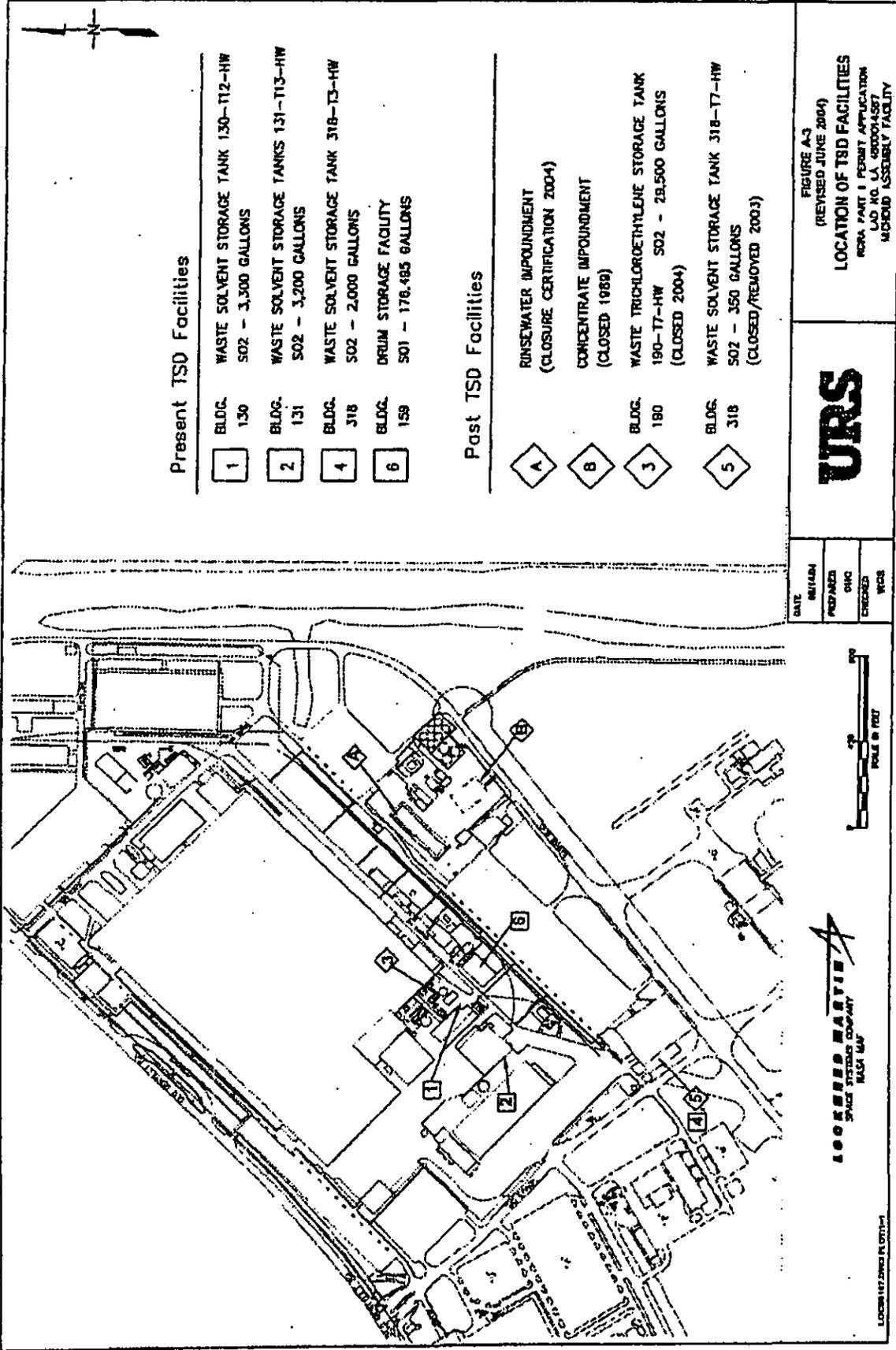
14. Comments (See instructions on page 39)

Large empty rectangular area for handwritten comments, with faint horizontal lines visible.

Enclosure (2)

**Figure A-3 Location Of TSD Facilities
And
Photographs**

(5) Pages



Present TSD Facilities

1	BLDG. 130	WASTE SOLVENT STORAGE TANK 130-T12-HW 502 - 3,500 GALLONS
2	BLDG. 131	WASTE SOLVENT STORAGE TANKS 131-T13-HW 502 - 3,200 GALLONS
4	BLDG. 318	WASTE SOLVENT STORAGE TANK 318-T3-HW 502 - 2,000 GALLONS
6	BLDG. 159	DRUM STORAGE FACILITY 501 - 178,485 GALLONS

Past TSD Facilities

A		RUNSEWER IMPOUNDMENT (CLOSURE CERTIFICATION 2004)
B		CONCENTRATE IMPOUNDMENT (CLOSED 1989)
3	BLDG. 180	WASTE TRICHLOROETHYLENE STORAGE TANK 190-T7-HW 502 - 28,500 GALLONS (CLOSED 2004)
5	BLDG. 318	WASTE SOLVENT STORAGE TANK 318-T7-HW 502 - 350 GALLONS (CLOSED/REMOVED 2003)

DATE	REVISION
PREPARED	CHKD
ENGINEER	INCH

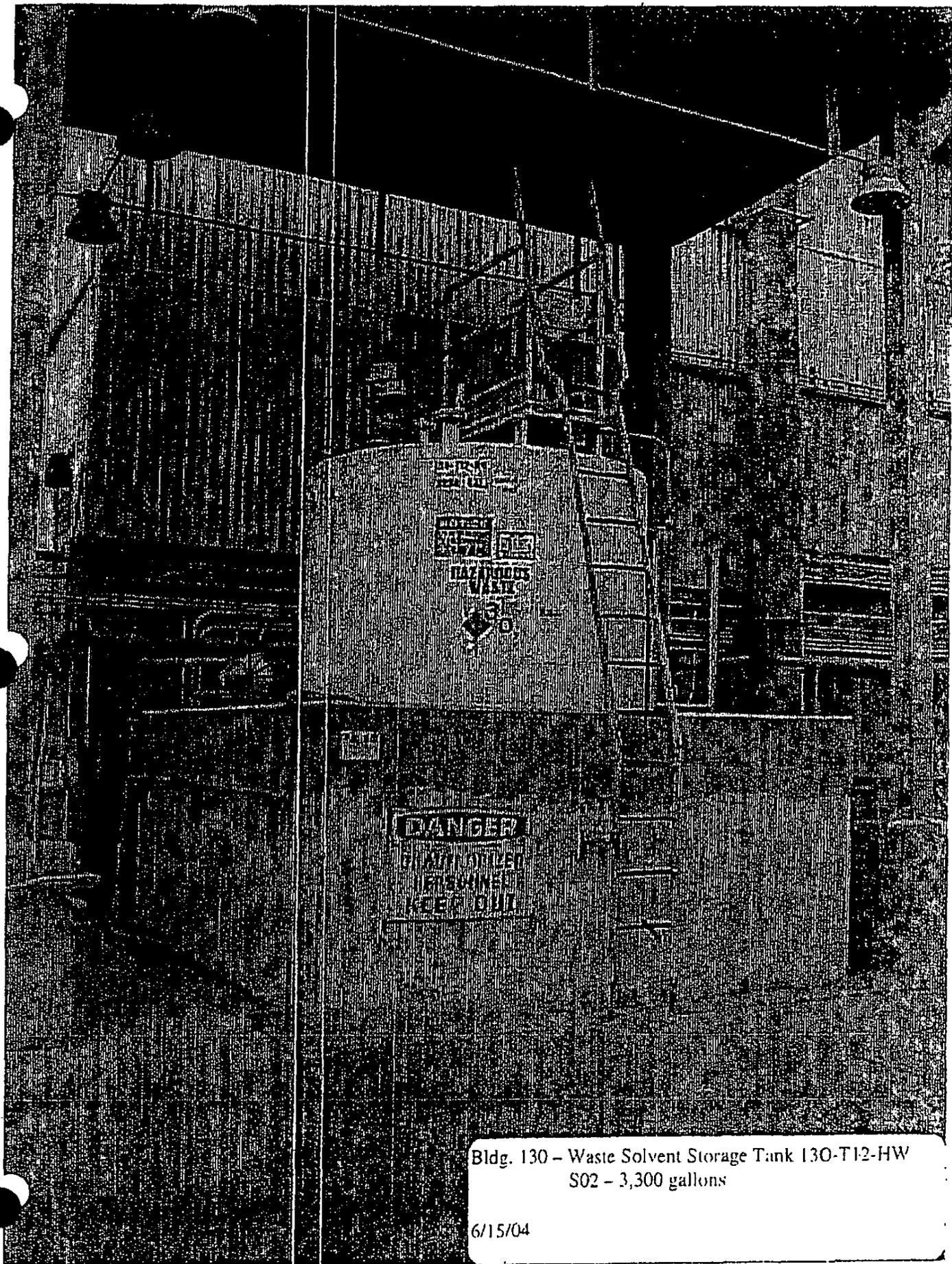


LOCKWOOD MARTIN
SPACE SYSTEMS COMPANY
MARIETTA, GA

LOCKWOOD MARTIN COMPANY
10000 WINDY HILL ROAD
MARIETTA, GA 30067

URS

FIGURE A-3
(REVISED JUNE 2004)
LOCATION OF TSD FACILITIES
MCPA PART 1 PERMIT APPLICATION
LAD NO. LA 480004587
MICHIGAN ASSEMBLY FACILITY

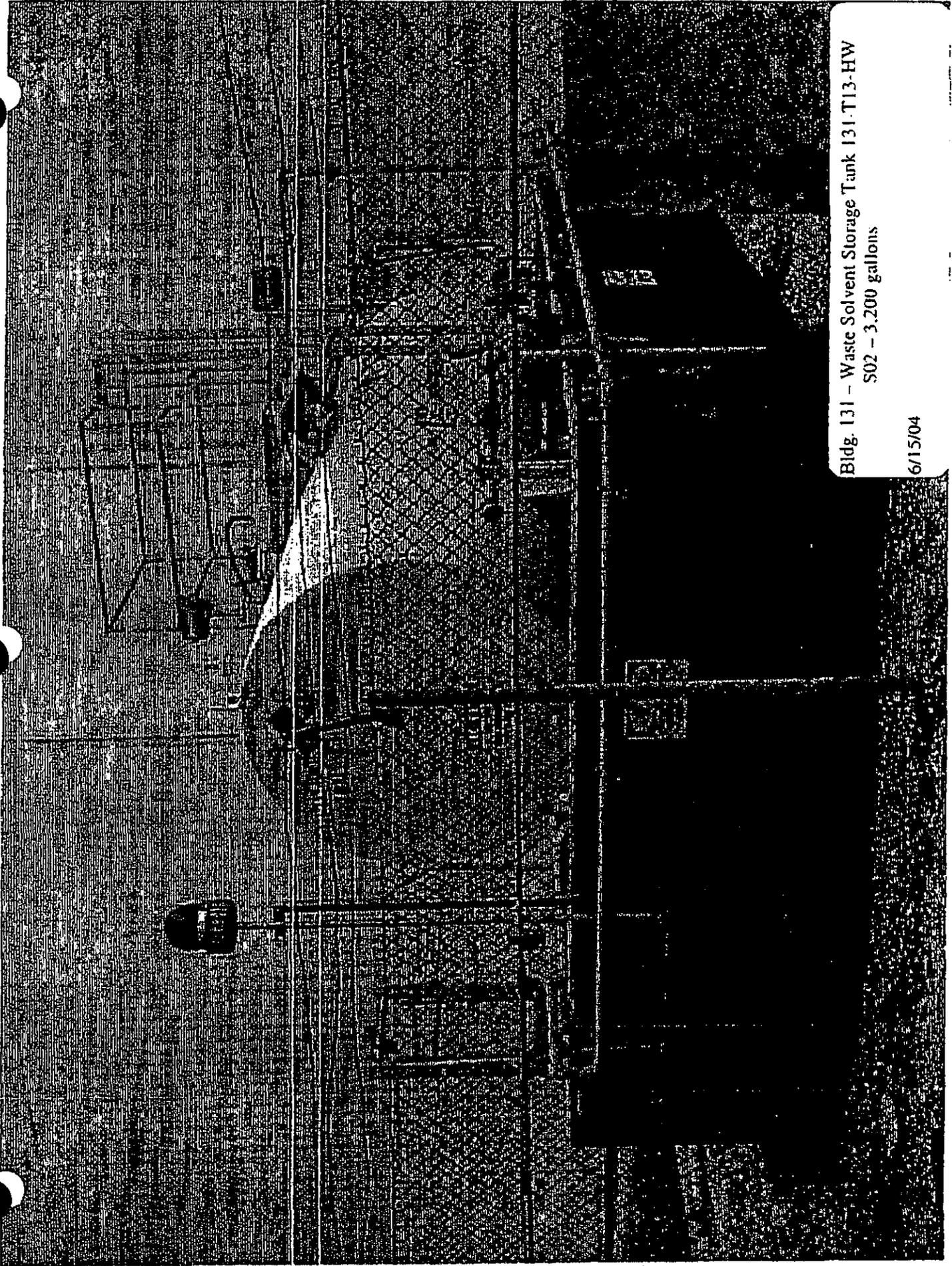


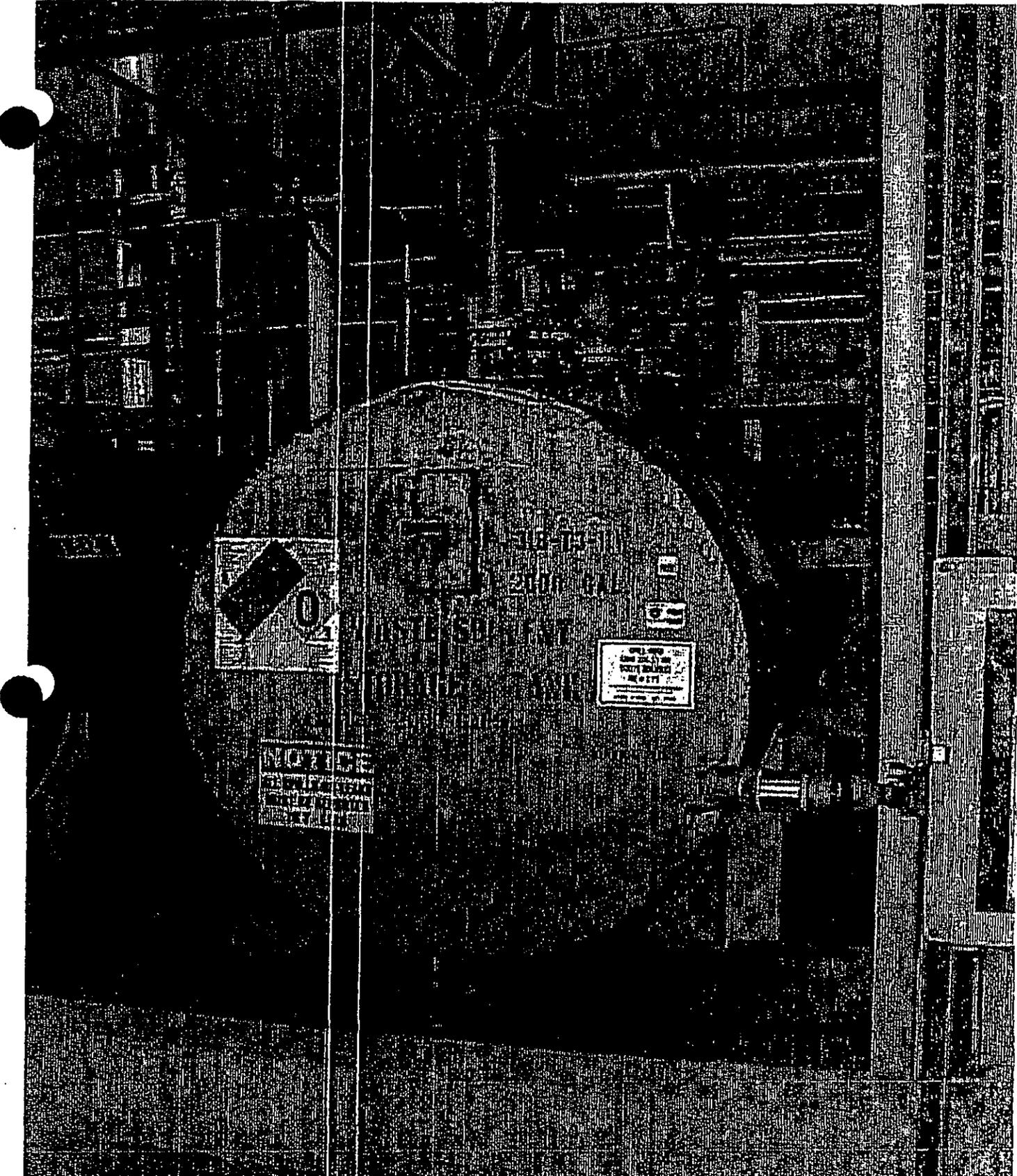
Bldg. 130 - Waste Solvent Storage Tank 130-T12-HW
S02 - 3,300 gallons

6/15/04

Bldg. 131 - Waste Solvent Storage Tank 131-T13-HW
S02 - 3,200 gallons

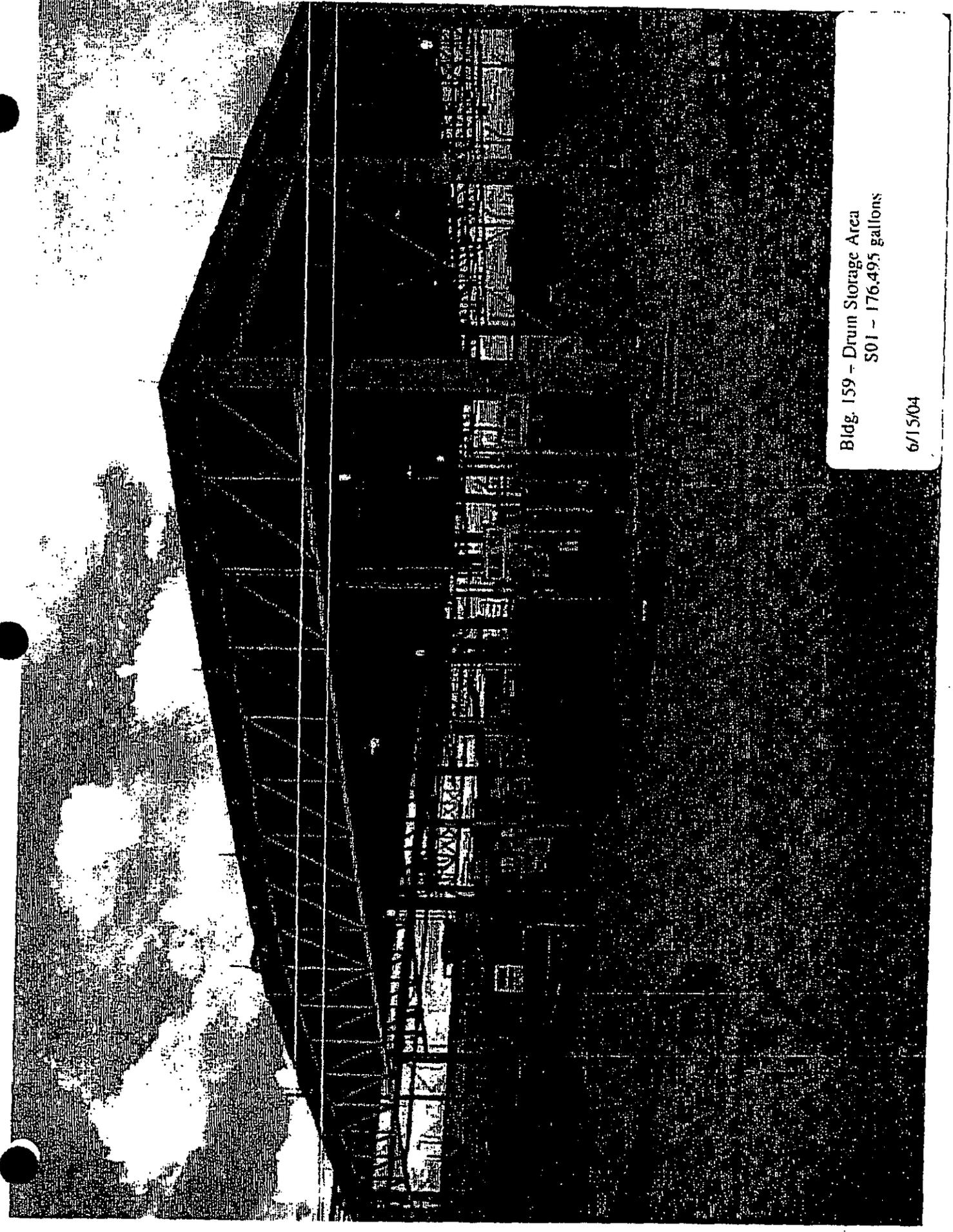
6/15/04





Bldg. 318 - Waste Solvent Storage Tank 318-T3-HW
S02 - 2,000 gallons

6/15/04



Bldg. 159 - Drum Storage Area
S01 - 176,495 gallons

6/15/04

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OF
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**BODY
OF PERMIT**

**DRAFT
HAZARDOUS WASTE OPERATING PERMIT**

**US NASA/Lockheed Martin
Michoud Assembly Facility
Operated by
Lockheed Martin**

**EPA ID# LA 4800014587
Agency Interest# 9145**

**Orleans Parish
New Orleans, Louisiana**

**PER19970001
Permit Number LA 4800014587-OP-RN-1**

I. PERMIT PREAMBLE

This Permit is issued to Lockheed Martin, hereinafter referred to as the Permittee, by the Louisiana Department of Environmental Quality (LDEQ) under authority of the Louisiana Hazardous Waste Control Law, R.S. 30:2171 et seq., and the regulations adopted thereunder and under the authority of the 1984 Hazardous and Solid Waste Amendments (HSWA) to Resource Conservation and Recovery Act (RCRA).

For the purposes of the Permit, "administrative authority" shall mean the Secretary of the Department of Environmental Quality, or his/her designee.

This Permit is based on information submitted in the permit application, and all subsequent amendments, and on the applicant's certification that such information is accurate and that all facilities were or will be constructed and operated as specified in the application.

This Permit is conditioned upon full compliance with all applicable provisions of the Louisiana Hazardous Waste Control Law, R.S. 30:2171 et. Seq., and the regulations adopted thereunder.

GLOSSARY OF TERMS

For the purpose of this Permit, terms used herein shall have the same meaning as those in LAC 33:V.Subpart 1 unless the context of use in this Permit clearly indicates otherwise. Where terms are not otherwise defined, the meaning otherwise associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

“Administrative Authority” means the Louisiana Department of Environmental Quality (LDEQ).

“Application” refers to the RCRA Part B Permit Application and subsequent amendments submitted by the Permittee for obtaining a Permit.

“Area of Concern” (AOC) means any discernable unit or area, which, in the opinion of the Administrative Authority, may have received solid or hazardous waste or waste containing hazardous constituents at any time. The Administrative Authority may require investigation of the unit to determine if it is a Solid Waste Management Unit (SWMU). If shown to be a SWMU by the investigation, the AOC must be reported by the Permittee as a newly identified SWMU. If the AOC is shown not to be a SWMU by the investigation, the Administrative Authority may determine that no further action is necessary and notify the Permittee in writing.

“Area of Investigation” (AOI) is a zone contiguous to and including impacted media defined vertically and horizontally by the presence of one or more constituents in concentrations exceeding the limiting SS, MO-1 RS, or MO-2 RS (depending on the option being implemented).

“Beneficial Resource” describes a natural resource that is useful to human and ecological receptors. The state may establish statutes or regulations that identify certain environmental components, such as specific ground water or surface water sources, as a “Special Beneficial Resource,” or “Designated Beneficial Resource.” The beneficial resource then may be entitled to greater protection from contamination.

“Constituents of Concern” (COC) means the COPC’s that pose a significant risk.

“Constituents of Potential Concern” (COPC) means chemicals from hazardous waste and hazardous waste constituents that are potentially site related and have data of quality for use in the Screen or a site-specific risk assessment. The facility should compile a list of COPC’s for each release site based on existing sampling data, waste analysis reports, etc.

“Conceptual Site Model” (CSM) is part of the Data Quality Objective (DQO) process that presents a three-dimensional picture of site conditions at a discrete point in time that conveys what is known about the facility, releases, release mechanisms, contaminant fate and transport, exposure pathways, potential receptors, and risks. The information for the CSM is documented into six profiles. The CSM evolves as data gaps in the profiles become more complete, and will be refined based upon results of site characterization data. The final CSM is documented in the Risk Management Plan (RMP).

“CWA” means Clean Water Act.

“Corrective Action” is an activity conducted to protect human health and the environment.

“DNAPL” a dense liquid not dissolved in water, commonly referred to as “free product.”

“EPA” means the United States Environmental Protection Agency.

“HSWA” means the 1984 Hazardous and Solid Waste Amendments to RCRA.

“Hazardous Constituent” means any constituent identified in LAC 33:V.Chapter 31. Table 1, or any constituent identified in LAC 33:V.3325. Table 4.

“LDEQ” means the Louisiana Department of Environmental Quality.

“LNAPL” a light liquid not dissolved in water, commonly referred to as “free product.”

“Operating Record” means written or electronic records of all maintenance, monitoring, inspection, calibration, or performance testing—or other data as may be required—to demonstrate compliance with this Permit, document noncompliance with this Permit, or document actions taken to remedy noncompliance with this Permit. A minimum list of documents that must be included in the operating record is identified at LAC 33:V.1529.B.

“Permittee” means Lockheed Martin, 13800 Gentilly Road, New Orleans, LA 70129.

“RCRA Permit” means the full permit, with RCRA and HSWA portions.

“RFA” means RCRA Facility Assessment.

“RFI” means RCRA Facility Investigation.

“Release” means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping or disposing of hazardous wastes (including hazardous constituents) into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous wastes or hazardous constituents).

“SARA” means Superfund Amendments and Reauthorization Action of 1986.

“Solid Waste Management Unit” (SWMU) means any discernable unit at which solid wastes have been placed at any time, irrespective of whether the unit was

intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

“Stabilization” is an action taken for the purpose of controlling or abating threats to human health or the environment from releases or preventing or minimizing the further spread of contaminants while long-term remedies are pursued.

If, subsequent to the issuance of this Permit, regulations are promulgated which redefine any of the above terms, the Administrative Authority may, at its discretion, apply the new definition to this Permit.

All regulating citations are defined as being the regulations in effect on the date of issuance of this Permit. New and/or amended regulations are not included as Permit requirements until Permit modification procedures as specified in Section II.C and LAC 33:V.321 of this Permit are completed.

II. GENERAL PERMIT CONDITIONS

II.A. DURATION OF PERMIT

This permit is effective as of the date indicated on the accompanying signature page and shall remain in effect for a maximum period of ten (10) years from the effective date, unless suspended, modified, revoked and reissued or terminated for just cause.

II.B. EFFECT OF PERMIT

The Permittee is allowed to store hazardous waste in accordance with the conditions of this permit. The Permittee is prohibited from any storage, treatment or disposal of hazardous waste not authorized by statute, regulation or this permit. Compliance with this permit, LAC 33:V.Subpart 1 and HSWA, constitutes compliance, for purposes of enforcement, with Subtitle C of RCRA and Chapter 9 of the Louisiana Environmental Quality Act (Act). However, compliance with the terms of this permit does not constitute a defense to any order issued or any action brought under Section 3013 or Section 7003 of RCRA, or under Section 106 (a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 942 U.S.C. 9606 (a).

In accordance with the LAC 33:V.307.B and C, issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local law or regulations.

II.C. PERMIT ACTIONS

Any inaccuracies found in the permit application may be cause for revocation or modification of this permit. The Permittee must inform the administrative authority of any deviation from, changes in, or inaccuracies, in the information in the permit application.

The administrative authority may also suspend, modify, revoke and reissue, or terminate for cause when necessary to be protective of human health or the environment as specified in 40 CFR 270.41, 270.42, 270.43 or LAC 33:V.309.F, 311.A or 323. The administrative authority may modify the permit when the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulation, or by judicial decision after the permit was issued. The filing of a request for permit modification, revocation and reissuance, or termination or the notification of planned changes or anticipated noncompliance on the part of Permittee does not stay the applicability or enforceability of any permit condition.

II.D. SEVERABILITY

The conditions of this permit are severable and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

II.E. DUTIES AND REQUIREMENTS

II.E.1. Duty to Comply

The Permittee shall comply with all conditions of this permit, except to the extent and for the duration such noncompliance may be authorized by an emergency permit, described in the LAC 33:V.701. Any permit noncompliance, other than noncompliance authorized by an emergency permit, constitutes a violation of the LAC 33:V.Subpart 1 and the Act and is grounds for enforcement action which may include permit termination, permit revocation and reissuance, permit modification, or denial of permit renewal application.

II.E.2. Duty to Reapply

If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must reapply for the permit as required by the LAC 33:V.303.N and

309.B. Notification shall be at least 180 days before the permit expires.

II.E.3. Permit Extension

This permit and all conditions herein will remain in effect beyond the permit's expiration date until the administrative authority issues a final decision on the re-application, provided the Permittee has submitted a timely, complete new permit application as provided in LAC 33:V.309.B and 315.A.

II.E.4. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

II.E.5. Duty to Mitigate

The Permittee shall immediately take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit as required by LAC 33:V.309.D.

II.E.6. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related ancillary equipment) that are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

II.E.7. Duty to Provide Information

The Permittee shall furnish to the administrative authority, within a reasonable time, any information which the administrative authority may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also

furnish to the administrative authority upon request, copies of records required by this permit in accordance with the LAC 33:V.309.H.

II.E.8. Inspection and Entry

The Permittee shall allow the administrative authority or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- II.E.8.a.** enter upon the Permittee's premises where a regulated activity is located or conducted, or where records must be maintained under the conditions of this permit;
- II.E.8.b.** have access to and copy, at reasonable times, any records that must be maintained under the conditions of this permit;
- II.E.8.c.** inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operation regulated or required under this permit; and
- II.E.8.d.** sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the administrative authority any substances or parameters at any location.

II.E.9 Sample Monitoring and Records

II.E.9.a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of 40 CFR Part 261. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, "SW-846", latest revision; Manual of Ground Water Quality Sampling Procedures, 1981, EPA-600/2-81-160, as revised; Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Facilities, 1977, EPA-530/SW-611, as revised; or an equivalent method as specified in the attached Waste Analysis Plan referenced in Attachment 1.

II.E.9.b. Records of monitoring information shall include:

II.E.9.b.(1) the date, exact place, and time of sampling or measurements;

II.E.9.b.(2) the name(s) and signature(s) of the individual(s) who performed the sampling or measurements;

II.E.9.b.(3) the date(s) analyses were performed;

II.E.9.b.(4) the name(s) and signature(s) of the individual(s) who performed the analysis;

II.E.9.b.(5) the analytical techniques or methods used;

II.E.9.b.(6) the results of such analyses; and

II.E.9.b.(7) associated quality assurance performance data.

II.E.9.c. Laboratory Quality Assurance/Quality Control

In order to ensure the accuracy, precision, and reliability of data generated for use, the Permittee shall submit a statement, certified as specified in LAC 33:V.513 and included in the annual report, indicating that:

II.E.9.c.(1) any commercial laboratory providing analytical results and test data to the Department required by this permit is accredited by the Louisiana Environmental Laboratory Accreditation Program (LELAP) in accordance with LAC 33:I. Subpart 3, Chapter 45. Laboratory data generated by commercial laboratories not accredited under LELAP will not be accepted by the Department.

LAC 33:I. Subpart 3 (Chapters 45-49) provides requirements for the accreditation program. Regulations and a list of labs that have applied for accreditation are available on the LDEQ website located at: <http://www.deq.state.la.us/laboratory/index.htm>.

In accordance with LAC 33:I.4501, the requirements for LELAP accreditation applies whenever data is:

- submitted on behalf of a facility;
- required as part of a permit application;
- required by order of the Department;
- required to be included in a monitoring report submitted to the Department;
- required to be submitted by contract; or
- otherwise required by the Department regulations

This includes, but is not limited to data from RCRA Trial Burns, Risks Burns, Risk Assessments, MACT Comprehensive Performance Tests, and data used for continuing compliance demonstrations.

II.E.9.c.(2) If the Permittee decides to use their own in-house laboratory for test and analysis, the laboratory is not required to be accredited by LELAP. However, the laboratory must document and submit for approval, quality assurance/quality control procedures that are commensurate with requirements in LAC 33:I. Subpart 3. Laboratory Accreditation.

II.E.9.c.(3) For approval of equivalent testing or analytical methods, the Permittee may petition for a regulatory amendment under LAC 33:V.105.I and LAC 33:I Chapter 9. In cases where an approved methodology for a parameter/analyte is not available or listed, a request to utilize an alternate method shall be submitted to the Administrative Authority for approval. Documentation must be submitted to the LDEQ that will verify that the results obtained from the alternate method are equal to or better than those obtained from EPA-accepted methods, as well as those deemed equivalent by the LDEQ.

II.E.10. Retention of Records

The Permittee shall maintain records from all ground water monitoring wells and associated ground water surface elevations for the active life of the facility and for the post-closure care period.

The Permittee shall maintain records through the active life of the facility (including operation, closure and post-closure periods) as required by LAC 33:V.309.J and LAC 33:V.1529.A, B, and C. All records, including plans, must be furnished upon request and made available at all reasonable times as required by LAC 33:V.1529.C.

File copies shall be kept for LDEQ inspection for a period of not less than three years as required by LAC 33:V.317.B.

The Permittee shall, for the life of the permit, maintain records of all data used to complete the application for this permit and any supplemental information submitted under the Louisiana Hazardous Waste Control Law (LA. R.S. 30:2171 et seq.).

II.E.11 Notices of Planned Physical Facility Changes

The Permittee shall give notice to the administrative authority, as soon as possible, of any planned physical alterations or additions to the permitted facility, in accordance with LAC 33:V.309.L.1.

II.E.12. Physical Facility after Modification or Construction

No new unit, or existing unit that will undergo a major modification may be used to treat, store, or dispose hazardous waste until the unit is complete and:

II.E.12.a. the Permittee has submitted to the administrative authority, by certified mail or hand delivery, a letter signed by the Permittee and an independent registered professional engineer stating that the unit is complete and has been constructed or modified in compliance with the permit; and

II.E.12.b. the administrative authority has inspected the modified unit following a request to make final inspection by the Permittee and finds it is in compliance with the conditions of the Permit and all

applicable sections of LAC 33:V.Subpart 1, and has issued an Order to Proceed. The Permittee may then commence treatment, storage, or disposal of hazardous waste.

II.E.13. Anticipated Noncompliance

The Permittee shall give advance notice to the administrative authority of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

II.E.14. Transfer of Permits

This permit may be transferred to a new owner or operator only if it is modified or revoked and reissued pursuant to LAC 33:V.309.L.4, 321.B, 321.C.4, and 1531.

II.E.15. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date.

II.E.16. Noncompliance Reporting

The Permittee shall report orally within twenty-four (24) hours any noncompliance with the permit that may endanger human health or the environment, except where more immediate notification is required by LAC 33:I.3901, et seq. ("Notification Regulation and Procedures for Unauthorized Discharges" dated November 19, 1985, as amended.) This report shall include the following:

II.E.16.a. information concerning the release of any hazardous waste that may endanger public drinking water supplies; and

II.E.16.b. information concerning the release or discharge of any hazardous waste, or of a fire or explosion at the facility, that could threaten the environment or human health outside the facility. The description of the occurrence and its cause shall include:

- II.E.16.b.(1) name, address, and telephone number of the owner or operator;
- II.E.16.b.(2) name, address, and telephone number of the facility;
- II.E.16.b.(3) date, time, and type of incident;
- II.E.16.b.(4) name and quantity of materials involved;
- II.E.16.b.(5) the extent of injuries, if any;
- II.E.16.b.(6) an assessment of actual or potential hazard to the environment and human health outside the facility, where this is applicable; and
- II.E.16.b.(7) estimated quantity and disposition of recovered material that resulted from the incident.

II.E.17. Follow-up Written Report of Noncompliance

The Permittee shall provide a written submission within five (5) days after the time the Permittee becomes aware of any noncompliance which may endanger human health or the environment. However, where more immediate submission is required by LAC 33:I. 3901, "Notification Regulations and Procedures for Unauthorized Discharges" dated November 19, 1985, as amended, the report shall be submitted in accordance with those regulations. The written submission shall contain a description of the noncompliance and its cause; the periods of noncompliance (including exact dates and times); whether the noncompliance has been corrected; and if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. If the administrative authority waives the requirement, then the Permittee submits a written report within fifteen (15) days after the time the Permittee becomes aware of the circumstances, as required by LAC 33:V.309.L.7.

II.E.18. Other Noncompliance

The Permittee shall report all other instances of noncompliance not otherwise required to be reported above, at the time required

monitoring reports are submitted. The reports shall contain the information listed in Section II.E.16.

II.E.19. Other Information

Whenever the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or that it submitted incorrect information in a permit application, or in any report to the administrative authority, the Permittee shall promptly submit such facts or information.

II.E.20. Signatory Requirement

All applications, reports or other information submitted to the administrative authority shall be signed and certified according to LAC 33:V.507, 509, 511, and 513.

II.E.21. Schedule of Compliance

II.E.21.a. The Permittee must submit to the administrative authority a Revised Inspection Plan meeting the requirements of LAC 33.V.517.G. The revised Inspection Plan must be submitted no less than 90 day after the effective date of the permit.

II.E.21.b. The Permittee must submit to the administrative authority a revised Closure Plan for the tanks meeting the requirements of LAC 33.V.1915 and Chapter 35. The revised Closure Plan must be a stand-alone document that describes closure activities, clean closure criteria, disposal of equipment after closure, and analytical and sampling methods to be used. The revised Closure Plan must be submitted no less than 90 days after the effective date of the permit.

II.E.21.c. Within 90 days after the effective date of this permit, the Permittee must submit a report attesting to the structural integrity and continued fitness-for-service of the permitted hazardous waste tanks. The report shall include the results of the latest internal, external, and ultrasonic testing for each tank and a calculation of the remaining life of each tank. The report must be certified by an independent, qualified, registered professional engineer.

If internal, external, or ultrasonic testing of a permitted tank has not been performed within five years prior to the effective date of this permit, testing must be performed and included in the report prior to certification of the report.

II.E.21.d. The Permittee must submit a revised site-wide Groundwater Sampling and Analysis plan 90 days after the effective date of the permit.

II.E.21.e. The Permittee must submit a notice of intent to the Administrative Authority within 60 days of issuance of this permit. The notice of intent shall include a schedule for the scoping meeting. (See Section VIII.B.)

II.E.22. Additional Operating Standards

(RESERVED)

II.E.23. Updated Documents To Be Submitted Prior To Operation

(RESERVED)

II.E.24. Documents To Be Maintained at Facility Site

II.E.24.a. Until closure is completed and certified by an independent registered professional engineer, the Permittee shall maintain at the facility the following documents and any amendments, revisions, and modifications to these documents. Any revision or changes shall be submitted with the annual report unless previously submitted.

II.E.24.a.(1) Waste analysis plan submitted in accordance with LAC 33:V.1519 (see Attachment 1).

II.E.24.a.(2) Personnel training plan and the training records as required by LAC 33:V.1515 (see Attachment 1).

II.E.24.a.(3) Contingency plan submitted in accordance with LAC 33:V.1513 (see Attachment 1).

II.E.24.a.(4) Arrangements with local authorities in accordance with LAC 33:V.1511.G. (see Attachment 1).

II.E.24.a.(5) Closure plan submitted in accordance with LAC 33:V.3511 and any post-closure and post-closure care requirements that may be required initially or through permit modifications in accordance with LAC 33:V.3523 (see Attachment 1).

II.E.24.a.(6) Operating records as required by LAC 33:V.1529 and 2115.D.

II.E.24.a.(7) Inspection schedules developed in accordance with LAC 33:V.517.G and 1509.B (see Attachment 1).

II.E.24.a.(8) Security plan developed in accordance with LAC 33:V.1507 (see Attachment 1).

II.E.24.b. All proposed amendments, revisions and modifications to any plan or cost estimates required by this permit shall be submitted to the administrative authority for approval.

II.E.25. Annual Report

An annual report shall be submitted covering all hazardous waste units and their activities during the previous calendar year as required by LAC 33:V.1529.D.

II.E.26. Manifest

The Permittee shall report manifest discrepancies and unmanifested waste as required by LAC 33:V.309.L.8 and 9, and 1107.

II.E.27. Emissions

Emissions from any hazardous waste facility shall not violate the Louisiana Air Quality Regulations. If air quality standards are exceeded, the site will follow air regulation protocol.

II.E.28. Waste Discharges

Waste discharges from any hazardous waste facility shall not violate the Louisiana Water Quality Regulations. If water standards are exceeded, the site will follow water quality regulation protocol.

II.E.29. Non-Listed Hazardous Waste Facilities

This permit is issued for those hazardous waste facilities listed in Section IV (Permitted Facilities). If the Permittee determines that an unpermitted hazardous waste facility exists, the Permittee must immediately notify the administrative authority in accordance with Section II.E.19 of the General Permit Conditions.

II.E.30. Compliance With Land Disposal Restrictions

The Permittee shall comply with those land disposal restrictions set forth in LA. R.S. 30:2193, all regulations promulgated thereunder, and the HSWA portion of this permit (Section VII).

II.E.31. Establishing Permit Conditions

Permits for facilities with pre-existing groundwater contamination are subject to all limits, conditions, remediation and corrective action programs designated under LAC 33:V.311.D and LAC 33:V.3303.

II.E.32. Obligation for Corrective Action

Owners or operators of hazardous waste management units must have all necessary permits during the active life of the unit and for any period necessary to comply with the corrective action requirements in Section VIII of this Permit. The facility is obligated to complete facility-wide corrective action regardless of the operational status of the facility.

II.E.33. Documents Incorporated by Reference

All plans and schedules required by this Permit are, upon approval by the Administrative Authority, incorporated into this Permit by reference and become an enforceable part of this Permit. When applicable, the Permittee must modify the permit according to LAC 33:V. Chapter 3. Since required items are essential elements of this Permit, failure to submit any of the

required items or submission of inadequate or insufficient information may subject the Permittee to enforcement action under Section 3008 of RCRA which may include fines, suspension, or revocation of the Permit. Also, where applicable the Permittee must meet all the permit modification requirements of LAC 33:V.321, 322 and 323.

Any noncompliance with approved plans and schedules shall be termed noncompliance with this Permit. Written requests for extensions of due dates for submittals may be granted by the Administrative Authority in accordance with LAC 33:I.1505.E.

If the Administrative Authority determines that actions beyond those provided for, or changes to what is stated herein, are warranted, the Administrative Authority may modify this Permit according to procedures in LAC 33:V.321.

III. GENERAL FACILITY CONDITIONS

III.A. DESIGN AND OPERATION OF ALL FACILITIES

III.A.1. The Permittee shall maintain and operate all facilities to minimize the possibility of a fire, explosion, or any unauthorized sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or water that could threaten human health or the environment.

III.A.2. The Permittee shall store hazardous waste on site pursuant to the applicable requirements of LAC 33:V.2205, 2245, and Chapter 11. After the accumulation period has expired, the permittee shall act as the generator when sending this waste offsite for treatment and comply with requirements of LAC 33:V.2245 as well as all other applicable requirements.

III.A.3. The Permittee shall not accept or store hazardous waste which is radioactive (i.e., having radioactive isotopes present in quantities or concentrations regulated under LAC 33:XV.Chapter 3.

III.B. REQUIRED NOTICE

Reserved.

III.C. GENERAL WASTE ANALYSIS

The Permittee shall follow the procedures described in the Waste Analysis Plan referenced in Attachment 1 and in accordance with LAC 33:V.1519.

III.C.1. The Permittee shall review the Waste Analysis Plan annually and report to the administrative authority in the annual report whether any revision is required to stay abreast of changes in EPA methods and/or State regulatory provisions.

III.C.2. Annually, the Permittee shall submit a certified statement that indicates that any laboratory (i.e., on-site laboratory or contract laboratory) that provides chemical analyses, analytical results, or other test data to the department, by contract or by agreement, is accredited in accordance with the laboratory accreditation requirements of LAC 33:I. Chapter 45. This written statement shall be certified as specified in LAC 33:V.513 and included in the annual report.

III.C.3. If there is reason to believe that the hazardous waste has changed or the operation generating the hazardous waste has changed, the Permittee shall review and recharacterize all hazardous waste streams generated by the Permittee onsite and treated, stored or disposed onsite. The Permittee must recharacterize wastes in accordance with LAC 33:V.1519.A.3. This recharacterization shall include laboratory analyses which provide information needed to properly treat, store and dispose of the hazardous waste, including physical characteristics and chemical components of the waste. The results of this recharacterization shall be summarized in the Permittee's Annual Report.

III.C.4. The Permittee shall submit documentation or certification if they contract with an outside laboratory for any service required by the Waste Analysis Plan or LAC 33:V.Chapter 15. This document or certification shall be resubmitted when a different laboratory is contracted. The Permittee shall also submit documentation that the laboratory complies with the accreditation requirements of LAC 33:I. Chapter 45.

III.C.5. All test procedures used by the Permittee shall be maintained on file by the Permittee and made available to the LDEQ upon request.

III.D. SECURITY

The Permittee shall comply with the security provisions of LAC 33:V.1507 as referenced in Attachment 1.

III.E. GENERAL INSPECTION REQUIREMENTS

The Permittee shall follow the inspection schedule referenced in Attachment 1. The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by LAC 33:V.1509.C. Records of inspections shall be kept as required by LAC 33:V.1509.D. The inspection schedule shall include the regulatory requirements of LAC 33:V.517.G, 1509, 1911, and 2109.

III.F. PERSONNEL TRAINING

The Permittee shall conduct personnel training as required by LAC 33:V.1515.A, B and C. This training program shall follow the outline referenced in Attachment 1. The Permittee shall maintain all training documents and records as required by LAC 33:V.1515.D and E.

III.G. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE

The Permittee shall take precautions as required by LAC 33:V.1517 to prevent accidental ignition or reaction of ignitable or reactive wastes. The Permittee shall store ignitable, reactive, or incompatible wastes only in accordance with LAC 33:V.1517, 1917, 1919 and 2113.

III.H. LOCATION STANDARDS

III.H.1. The Permittee has furnished evidence that it is in compliance with seismic standards as required by LAC 33:V.517.T.

III.H.2. The Permittee shall not place any hazardous waste unit on any portion of the property that lies within the 100 year floodplain (as identified in the Flood Insurance Rating Map) unless such areas are raised above this flood level or other means (e.g., levees) are provided to protect such areas from washouts, overtopping by wave action, soil erosion or other effects of such a flood as required by LAC 33:V.1503.B.3. Such site improvements shall be certified by independent licensed professional engineers and approved by LDEQ prior to any hazardous waste and/or hazardous waste facilities being placed thereon.

III.I. PRECIPITATION RUN-ON AND RUN-OFF

The Permittee must provide for the control and/or containment of run-on and run-off from the maximum rainfall occurring in 24 hours from a 25 year storm as defined by local rainfall records and LAC 33:V.1503.B.2. The Permittee shall comply with the requirements of LAC 33:V.1907.E.1.b, 2111.B.4, B.5, and B.6.

III.J. HURRICANE EVENTS

The Permittee shall initiate those applicable portions of the contingency plan during a hurricane as well as appropriate actions required by LAC 33:V.1507, 1509, and 1511.

III.K. PREPAREDNESS AND PREVENTION

III.K.1. Required Equipment

At a minimum, the Permittee shall install and maintain the equipment set forth in the contingency plan, referenced in Attachment 1, as required by and which is in conformance with LAC 33:V.1511.C.

III.K.2. Testing and Maintenance of Equipment

The Permittee shall test and maintain the equipment specified in Section III.K.1 to insure its proper operation in time of emergency.

III.K.3. Access to Communications or Alarm Systems

The Permittee shall maintain access to the communications of alarm system as required by LAC 33:V.1511.E.1 and 1511.E.2

III.K.4. Required Aisle Space

In no case shall aisle space be less than two (2) feet. In addition, the Permittee shall maintain adequate aisle space as required by LAC 33:V.1511.F and 2109.B.

III.K.5. Arrangements with Local Authorities

The Permittee shall document in the annual report that the requirements of LAC 33:V.1511.G. have been met. This documentation shall include those state and local agencies

involved and those facilities and operations covered. Documentation of written arrangements with state and local agencies shall also be included in this report. Where state or local authorities decline to enter into such arrangements, the Permittee must document the refusal in the operating record.

III.L. CONTINGENCY PLAN

III.L.1. Implementation of Plan

The Permittee shall immediately carry out the provisions of the contingency plan referenced in Attachment 1, which complies with the emergency procedures described by LAC 33:V.1513.F whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents that threaten or could threaten human health or the environment.

III.L.2. Copies of Plan

The Permittee shall comply with the requirements of LAC 33:V.1513.C.

III.L.3. Amendments to Plan

The Permittee shall review and amend in a timely manner (if necessary), the contingency plan as required by LAC 33:V.1513.D.

III.L.4. Emergency Coordinator

The Permittee shall comply with the requirements of LAC 33:V.1513.E concerning the emergency coordinator.

III.M. MANIFEST SYSTEM

The Permittee shall comply with the manifest requirements of LAC 33:V.Chapter 9.

III.N. RECORD KEEPING AND REPORTING

III.N.1. Operating Record

The Permittee shall maintain a written operating record at the facility in accordance with LAC 33:V.1529.A, 1529.B, and 1529.C.

III.N.2. Annual Report

The Permittee shall comply with the annual report requirements of LAC 33:V.1529.D.

III.N.3. Operations Manual

The Permittee shall compile and keep current an operations manual covering all aspects of the Permittee's treatment, storage, and disposal facilities.

III.O. CLOSURE/POST-CLOSURE

CLOSURE

The closure plan shall include the following responses by the Permittee to LAC 33:V.1915, 2117, 3503, 3505, 3507, 3509, 3511, 3513, and 3515.

III.O.1. Closure Performance Standard. The Permittee shall close the facility in accordance with the closure plan referenced in Attachment 1 and in accordance with applicable sections of LAC 33:V.3507.

Any contamination discovered during closure, or upon completion of closure, shall be handled under the provisions of LAC 33:V.Chapter 33.

III.O.2. Amendment to Closure Plan. The Permittee shall amend the closure plan where necessary, in accordance with LAC 33:V.3511.C. Any modification shall be subject to LAC 33:V.321, 322 and 323, where applicable.

III.O.3. Notification of Closure. The Permittee shall notify the administrative authority at least 45 days prior to the date he expects to begin closure in accordance with LAC 33:V.3511.D.

III.O.4. Time Allowed For Closure. After receiving the final volume of hazardous waste, the Permittee shall treat or remove from the site all hazardous waste in accordance with the schedule specified in the closure plan referenced in Attachment 1 and in accordance with LAC 33:V.3513.

III.O.5. Disposal or Decontamination of Equipment. The Permittee shall decontaminate and dispose all facility equipment in accordance

with the closure plan referenced in Attachment 1 and in accordance with LAC 33:V.3515.

III.O.6. Certification of Closure. The Permittee shall certify that the facility has been closed in accordance with the specifications in the closure plan as required by LAC 33:V.3517.

III.O.7. Inventory at Closure. The Permittee shall be responsible for closure cost based upon the maximum permitted facility inventories listed below in Tables 1 and 2.

**TABLE 1
Container Storage Unit**

STORAGE AREA	TOTAL AREA LIMIT (SQ. FT)	WASTE	MAXIMUM PERMITTED CAPACITY (GALLONS)
Drum Storage Facility (Building 159)	17400	Assorted D, F, P, and U listed waste	3,209 55-gallon drums/176,495 gallons

**TABLE 2
Existing Tanks**

TANKS	SERVICE	WASTE	MAXIMUM PERMITTED CAPACITY (GALLONS)
130-T12-HW	Hazardous Waste Storage	D001, D035, F003, and F005	3,300
131-T13-HW	Hazardous Waste Storage	D001, D035, D040, F001, F002, F003, and F005	3,200
318-T3-HW	Hazardous Waste Storage	D001 and F003	2,000

III.P. POST-CLOSURE

The Permittee will attempt to clean close all units. If the Facility cannot be clean closed or closed according to applicable RECAP standards, the permittee shall present a post-closure plan for approval by the administrative authority. If some waste residues or contaminated materials are left in place at final closure, the Permittee must comply with all post-closure requirements contained in LAC 33:V3519 and 3527, including maintenance and monitoring throughout the post-closure care period.

III.Q. COST ESTIMATE FOR CLOSURE/POST-CLOSURE

Reserved.

III.R. FINANCIAL ASSURANCE FOR CLOSED UNITS

The Permittee shall have and maintain assurance for closure in accordance with LAC 33:V.3707 for all units listed under Section III.

III.S. LIABILITY REQUIREMENTS

The Permittee shall have and maintain liability coverage for sudden accidental occurrences in the amount of \$1,000,000 each occurrence and \$2,000,000 annual aggregate, exclusive of legal defense costs, as required by LAC 33:V.3715.A.

III.T. INCAPACITY OF THE PERMITTEE

The Permittee shall comply with LAC 33:V.3717 whenever bankruptcy is initiated for the Permittee or its institutions providing financial assurance. If insurance is used for compliance with LAC 33:V.3715, the Permittee shall immediately notify the Administrative Authority if the insurance company is placed in receivership. The Permittee must establish other financial assurance or liability coverage within sixty (60) days after such an event.

IV. PERMITTED FACILITIES

The following facilities are permitted to be used in hazardous waste service:

IV.A. CONTAINER STORAGE

**TABLE 3
CONTAINER STORAGE**

STORAGE AREA	TOTAL AREA LIMIT (SQ. FT)	WASTE	MAXIMUM PERMITTED CAPACITY (GALLONS)
Drum Storage Facility (Building 159)	17400	Assorted D, F, P, and U listed waste	3,209 55-gallon drums/176,495 gallons

The container storage area listed in Table 3 is permitted to store hazardous waste in properly labeled and sealed containers and flo-bins which have been specified for this service and are compatible with the contained waste. Drums and containers are to be stored on pallets, as per Section V.A.11.

The Drum Storage Facility is a roofed storage area with two storage areas. The base underlying the building is an 8" reinforced concrete slab coated with a low permeability epoxy floor coating. Storage Area A is approximately 150' by 100' in area. This is the main storage and has a maximum capacity of 2,889 55-gallon drums or 158,895 gallons. The total volume of the containment system is calculated to be 96,600 gallons. Storage Area B is approximately 80' by 30' in area and located adjacent to Storage Area A. It has a maximum capacity of 320 55-gallon drums or 17,600 gallons. The total volume of the containment system is calculated to be 8,453 gallons.

IV.B. TANKS

TABLE 4
Existing Tanks

TANKS	SERVICE	WASTE	MAXIMUM CAPACITY (GALLONS)
130-T12-HW	Hazardous Waste Storage	D001, D035, F003, and F005	3,300
131-T13-HW	Hazardous Waste Storage	D001, D035, D040, F001, F002, F003, and F005	3,200
318-T3-HW	Hazardous Waste Storage	D001 and F003	2,000

IV.B.1 Tank Descriptions:

130-T12-HW: This tank is a vertical, aboveground, carbon steel tank with a maximum capacity of 3,300 gallons. This tank is constructed in accordance with UL-142 with the exception of the bottom head design. Vertical tanks on elevated legs are not covered by UL-142. The design shell thickness is 0.25". The tank holds spent solvents that are compatible with carbon steel.

131-T13-HW: this tank is a horizontal, above ground, carbon steel tank with a maximum capacity of 3,200 gallons. This tank is constructed in accordance with UL-142. The design shell thickness is 0.25". The tank holds spent solvents that are compatible with carbon steel.

318-T3-HW: This tank is a horizontal, aboveground, tank with a maximum capacity of 2,000 gallons. The tank is constructed in

accordance with UL-142 out of 316L stainless steel. The design shell thickness is 0.25". The tank holds spent solvents that are compatible with 316L stainless steel.

V. PERMIT CONDITIONS APPLICABLE TO PERMITTED FACILITIES

V.A. CONTAINER STORAGE

The permit conditions as set forth under this section shall apply where applicable, to the permitted container storage facilities as designated in Section IV.A. **Section VII.B contains language pertaining to the emission standards for container storage.**

- V.A.1.** The Permittee shall be in compliance with all appropriate conditions set forth in LAC 33:V.2101.
- V.A.2.** The Permittee shall maintain all containers in accordance with LAC 33:V.2103.
- V.A.3.** The Permittee will assure the integrity of the containers in accordance with LAC 33:V.2105.
- V.A.4.** The Permittee must manage the containers in accordance with LAC 33:V.2107.A and B.
- V.A.5.** The permittee shall inspect the containers and container storage area in accordance with LAC 33:V.2109 and LAC 33:V.1509. Results of such inspections must be placed in the operating record in accordance with LAC 33:V.1529.B.8. Any incident involving leaking containers and spilled materials reportable under applicable regulations (RCRA, Clean Water Act (CWA), Superfund Amendments and Reauthorization Act (SARA)) shall be detailed in the annual report due by March 1 of each year. The Permittee must follow the applicable release notification requirements.
- V.A.6.** The permittee shall store all wastes in containers that are compatible with the hazardous wastes involved and in accordance with DOT standards listed in 49 CFR 173 and 178.
- V.A.7.** The Permittee must maintain the container storage area as required by LAC 33:V.2111.A, B.1, 2 and 3.
- V.A.8.** The Permittee must manage spilled or leaked waste and accumulated precipitation according to LAC 33:V.2111.B.5.

- V.A.9. The Permittee must manage any collected material as required by LAC 33:V.2111.B.6. Storm water shall be contained until analysis establishes that it meets permit limitation criteria for discharge through the NPDES treatment system, or other authorized disposal methods.
- V.A.10. The Permittee must place and store incompatible, ignitable, and reactive waste only in accordance with LAC 33:V.1517, 2113 and 2115.
- V.A.11. The Permittee shall store hazardous waste (where applicable) on pallets not more than two (2) tiers of pallets high, or three tiers of pallets high if the containers on the top pallet are bound together for increased stability, and no more than four (4) large containers per tier on the pallet and conform to LAC 33:V.2109.B. The pallets will be placed in rows with a minimum of two (2) feet of aisle space between rows. For containers that are forty (40) gallons or larger, only one level of containers per pallet. For containers with less than forty (40) gallons capacity, two (2) levels of containers may be stored per pallet, provided that the containers are consistent in size and are not miss-shaped, bent or broken.
- V.A.12. The Contingency Plan shall be activated when warranted by an emergency and reported as required by LAC 33:V.1513.
- V.A.13. The Permittee must insure that all hazardous waste personnel receive initial and continued training to insure compliance with LAC 33:V.1515, and maintain an emergency response program in compliance with LAC 33:V.1525.
- V.A.14. The Permittee must control and report all point source discharges according to LAC 33:V.1505.
- V.A.15. All trucks and railcars containing hazardous waste shall be managed only in areas designed and utilized for managing such vehicles. These areas must meet the requirements of LAC 33:V.1527 and 2111. All container truck transfer and container rail transfer facilities shall be designed with sufficient spill containment and in accordance with the applicable regulations to protect human health and environment.
- V.A.16. Trucks or railcars loaded with hazardous waste cannot be stored overnight at the facility.
- V.A.17. A representative sample of the hazardous waste in any waste shipment must be analyzed in accordance with the Waste Analysis Plan to verify pertinent information on the manifest. The quantity for waste received must be recorded and chemical and physical characteristics identified with regard to ignitability, reactivity and incompatibility in accordance with LAC 33:V.2113 and 2115.

V.A.18.The Permittee shall not exceed the maximum liquid capacity listed under Section IV.A, of this permit for each container storage area listed.

V.A.19.At closure, the Permittee shall adhere to the procedures detailed in the closure plan referenced in Attachment 1 of this permit and as required by LAC 33:V.2117 and Chapter 35.

V.A.20.The Permittee shall always maintain enough secondary containment capacity to contain at least ten percent (10%) of the total volume of containers or the volume of the largest container, whichever is greater in accordance with LAC 33:V.2111.B.3. Containers that do not contain free liquids (per the Paint Filter Liquids Test) do not need to be considered in this determination.

V.B. TANKS (STORAGE)

V.B.1. DESCRIPTION OF TANK SYSTEMS

The tank systems listed in Table 4 and 5 are permitted to be used for hazardous waste storage. **Section VII.B contains language pertaining to the emission standards for tanks.**

All tanks shall be operated within design limits as specified in Table 5. The secondary containment systems shall be designed, operated, and maintained to meet the requirements of LAC 33:V.1907.

V.B.2. PERMITTED AND PROHIBITED WASTE

V.B.2.a Permitted Waste

The Permittee shall operate and maintain the hazardous waste tanks in accordance with LAC 33:V.Chapter 19, and the specification and design criteria submitted in the Part II Permit Application. Subject to the terms of this Permit, the Permittee is allowed to store in the tanks described in Section IV.B of this Permit, the hazardous wastes identified in the Part A Permit Application. The Permittee is prohibited from storing any hazardous waste received from offsite.

V.B.2.b Prohibited Waste

The Permittee is prohibited from storing hazardous waste that is not identified in Section IV.B.1 of this Permit.

V.B.3. SECONDARY CONTAINMENT AND INTEGRITY ASSESSMENTS

The Permittee shall design, construct, and operate the secondary containment systems in accordance with LAC 33:V.1907.B through F, the design criteria specified in the Part II Permit Application, and Table 5 of this Permit.

V.B.4. OPERATING REQUIREMENTS

V.B.4.a. Duty to Comply with LAC 33:V.1909.A

The Permittee shall not place hazardous waste or treatment reagents in a tank system if such materials would cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode or otherwise fail.

V.B.4.b. Duty to Comply with LAC 33:V.1909.B

The Permittee shall use appropriate controls and practices to prevent spills and overflows from tank or containment systems to comply with LAC 33:V.1909.B. The Permittee must also comply with Table 5 of this Permit.

V.B.5. RESPONSE TO LEAKS OR SPILLS

V.B.5.a. Duty to Maintain the Tank System

When any tank shell thickness measures less than the minimum required in Table 5, the tank shall be unfit for use, and shall be removed from service and emptied of hazardous waste immediately. The tank shall be repaired or replaced before hazardous waste service can be resumed.

The Permittee shall maintain the tanks to meet the permitted design specifications in Table 5. If the corrosion rate of the tank wall is not available, the Permittee will conduct shell thickness testing to establish data for all listed tanks, at least biennially, or as directed by the administrative authority. Such information shall be contained in the annual report.

Fiberglass reinforced plastic (FRP) tanks shall be taken out of service and repaired when a significant amount of fiberglass is exposed, cracks are visible, softening or swelling occurs, or when delamination is evident.

V.B.5.b. Duty to Comply with LAC 33:V.1913.A through E

In the event of a leak or spill from the tank system, secondary containment system, or if a system becomes unfit for use, the Permittee shall comply with LAC 33:V.1913.A through E.

V.B.5.c. Extensive Repairs

If the Permittee has performed extensive repairs to the tank system, as defined by LAC 33:V.1913.F, in accordance with LAC 33:V.1913.E, the Permittee shall comply with LAC 33:V.1913.F. The certification of repairs shall include an inspection in accordance with the requirements of any applicable codes, such as API 653.

V.B.5.d. Tank Reinstallation

When a tank is taken out of service in response to a leak or spill in accordance with LAC 33:V.1913 but the cause of the leak or spill cannot be determined and so no major repairs are performed and if the tank is unseated and reinstalled, the reinstallation must be certified by an independent, qualified, registered, professional engineer.

V.B.6. CONTAINMENT SYSTEMS

The Permittee shall design and operate secondary containment system in compliance with LAC 33:V.1907. Spilled or leaked material shall be handled in a timely manner as required by LAC 33:V.1913.

Secondary containment systems must be maintained to prevent any migration of waste or accumulated liquid out of the system to the soil, groundwater or surface water at any time during the use of the tank system. Secondary containment systems must be free of cracks or gaps and other surface defects that would allow liquid to migrate out the secondary containment system. (LAC 33:V.1907.B&E.)

V.B.7. INSPECTION SCHEDULES AND PROCEDURES

The Permittee shall comply with LAC 33:V.1911.A through C by following the inspection schedule submitted in accordance with this Permit's Schedule of Compliance.

External inspections, thickness testing, and internal inspections of the

tanks shall be performed at least as often as prescribed in Section V.B.5.a and by the tank design and inspection codes specified in Table 5.

V.B.8. RECORDKEEPING

- V.B.8.a.** The Permittee shall obtain, and keep on file at the facility, the written statements by those persons required to certify the design and installation of new tanks systems. (LAC 33:V.1905.G)
- V.B.8.b.** The Permittee shall keep on file at the facility, the written assessment of the tank systems' integrity. (LAC 33:V.1903, 1905)
- V.B.8.c.** The Permittee shall document in the operating record for the facility an inspection of those items in Section V.B.7 of this permit.

V.B.9. CLOSURE CARE

V.B.9.a. Duty to Comply with LAC 33:V.1915.A

The Permittee shall comply with LAC 33:V.1915.A by following the procedures specified in the Closure Plan submitted in accordance with this Permit's Schedule of Compliance. The Closure Plan must describe how the Permittee will remove or decontaminate all waste residues, contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste while meeting the requirements of LAC 33:V.Chapters 35 and 37.

V.B.9.b. Duty to Comply with LAC 33:V.1915.B

If the Permittee cannot close the tank system in accordance with Section V.B.9.a of this Permit, the Permittee shall submit a closure plan in compliance with LAC33: V.1915.B.

V.B.10. SPECIAL PROVISIONS FOR IGNITABLE OR REACTIVE WASTES

The Permittee shall store ignitable, reactive, or incompatible wastes only in accordance with LAC 33:V.1517, 1917, 1919 and 2113.

**TABLE 5
DESIGN AND OPERATING PARAMETERS
RCRA TANK SYSTEMS**

Tank No.	Waste Storage	Permitted Capacity (Gals.)	Design Standard	Inspection Standard	Design Temp. (F)	Design Pressure (PSI)	Materials of Construction	Design Shell Thickness (Inches)	Corrosion Allowance (Inches)	Minimum Shell Thickness (Inches)	Secondary Containment Capacity (Gallons)
130-T12-HW	Liquid - MEK and water	3300	UL-142	API 653	100	0.5	Carbon steel	0.25	0.083	0.167	4742
131-T13-HW	Liquid - heptane and water	3200	UL-142	API 653	80	0.5	Carbon steel	0.25	0.083	0.167	5244
318-T3-HW	Liquid - heptane and xylene	2000	UL-142	API 653	100	10.5	316L stainless steel	0.25	0.083	0.167	7062

VI. GROUND WATER PROTECTION

The regulations of Louisiana Administrative Code (LAC), Title 33, Part V, Chapter 3, 5, 15, 25, 27, 29, 30, 33, 35, and 37, and the Louisiana Hazardous Waste Control Law Revised Statute (R.S.) 30:2171 et seq., 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 hazardous wastes at U.S. NASA Lockheed Martin. No active, regulated treatment, storage or disposal units are identified in this permit, which are, at the time of issuance of this permit, subject to groundwater monitoring requirements of LAC 33:V.3303-3321.

The Permittee shall comply with the monitoring, response and corrective action program provisions for any new systems in accordance with LAC 33:V. Chapter 33, as outlined in this permit (i.e., Section VIII, HSWA) and in the latest approved Groundwater Sampling and Analysis Plan.

If groundwater contamination is confirmed as a result of operations related to past or present hazardous waste management facilities associated with this site, the permittee shall establish, expand or continue, assessment and corrective action programs in accordance with the requirements of LAC 33:V. Chapter 33 and as subsequently directed by the administrative authority.

**HAZARDOUS
AND
SOLID
WASTE
AMENDMENTS**

VII. GENERAL CONDITIONS PURSUANT TO THE HAZARDOUS AND SOLID WASTE AMENDMENTS

VII.A. STANDARD CONDITIONS

VII.A.1. Waste Minimization

Annually, by March 1, for the previous year ending December 31, the Permittee shall enter into the operating record as required by LAC 33:V.1529.B.19, a statement certified according to LAC 33:V.513.A specifying that the Permittee has a program in place to reduce the volume and toxicity of hazardous wastes generated by the facility's operation to the degree determined by the Permittee to be economically practicable; and the proposed method of treatment, storage, or practicable disposal method that is currently available to the Permittee which minimizes the present and future threat to human health and the environment. A current description of the program shall be maintained in the operating record and a copy of the annual certified statement shall be submitted to the Administrative Authority. The following criteria should be considered for the program:

- VII.A.1.a.** Any written policy or statement that outlines goals, objectives, and/or methods for source reduction and recycling of hazardous waste at the facility;
- VII.A.1.b.** Any employee training or incentive programs designed to identify and implement source reduction and recycling opportunities;
- VII.A.1.c.** An itemized list of the dollar amounts of capital expenditures (plant and equipment) and operating costs devoted to source reduction and recycling of hazardous waste;
- VII.A.1.d.** Factors that have prevented implementation of source reduction and/or recycling;
- VII.A.1.e.** Sources of information on source reduction and/or recycling received at the facility (e.g., local government, trade associations, suppliers, etc.);
- VII.A.1.f.** An investigation of additional waste minimization efforts that could be implemented at the facility. This investigation would analyze the potential for reducing the quantity and toxicity of each waste stream through production reformulation, recycling, and all other appropriate means. The analysis would include an assessment of the technical feasibility, cost, and potential waste reduction for each option;

- VII.A.1.g. A flow chart or matrix detailing all hazardous wastes the facility produces by quantity, type, and building/area;
- VII.A.1.h. A demonstration of the need to use those processes that produce a particular hazardous waste due to a lack of alternative processes or available technology that would produce less hazardous waste;
- VII.A.1.i. A description of the waste minimization methodology employed for each related process at the facility. The description should show whether source reduction or recycling is being employed;
- VII.A.1.j. A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years; and
- VII.A.1.k. The Permittee may meet the requirements for waste minimization by developing an Environmental Management System according to the EPA document, Integrated Environmental Management System Implementation Guide, EPA 744-R-00-011, October 2000, found on www.epa.gov/opptintr/dfe/pubs/iems/iems_guide/index.htm.

VII.A.2. Dust Suppression

Pursuant to LAC 33:V.4139.B.4, and the Toxic Substances Control Act, the Permittee shall not use waste or used oil or any other material which is contaminated with dioxin, polychlorinated biphenyls (PCBs), or any other hazardous waste (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment.

VII.A.3. Failure to Disclose

The Permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts at any time may be cause for termination or modification of this Permit in accordance with LAC 33:323.B.2 and 3.

VII.A.4. Suspension, Modification, or Revocation and Reissuance, and Termination of Permit

This Permit may be modified, revoked and reissued, or terminated for cause as specified in LAC 33:V.323. The filing of a request by the Permittee for a permit modification, revocation and reissuance, termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any permit condition.

VII.A.4.a. If the Administrative Authority tentatively decides to modify or revoke and reissue a permit under LAC 33:V.321.C. or 323, a draft permit shall be prepared incorporating the proposed changes. The Administrative Authority may request additional information and, in the case of a modified permit, may require the submission of an updated permit application.

VII.A.4.b. The Permittee may initiate permit modification proceedings under LAC 33:V.321.C. All applicable requirements and procedures as specified in LAC 33:V.321.C shall be followed.

VII.A.4.c. Modifications of this Permit do not constitute a reissuance of the Permit.

VII.A.5. Permit Review

This Permit may be reviewed by the Administrative Authority five years after the date of permit issuance and may be modified as necessary as provided for in LAC 33:V.321.C. Nothing in this section shall preclude the Administrative Authority from reviewing and modifying the Permit at any time during its term.

VII.A.6. Compliance with Permit

Compliance with a RCRA permit during its term constitutes compliance, for purposes of enforcement, with subtitle C of RCRA except for those requirements not included in the permit which:

VII.A.6.a. Become effective by statute;

VII.A.6.b. Are promulgated under LAC 33:V.Chapter 22 restricting the placement of hazardous wastes in or on the land; or

VII.A.6.c. Are promulgated under LAC 33:V.Chapters 23, 25 and 29 regarding leak detection systems for new and replacement surface impoundment, waste pile, and landfill units, and lateral expansions of surface impoundment, waste pile, and landfill units. The leak detection system requirements include double liners, construction quality assurance (CQA) programs, monitoring action leakage rates, and response action plans, and will be implemented through the procedures of LAC 33:V.321.C Class 1 permit modifications.

VII.A.7. Specific Waste Ban

VII.A.7.a. The Permittee shall not place in any land disposal unit the wastes specified in LAC 33:V. Chapter 22 after the effective date of the prohibition unless the Administrative Authority has established

disposal or treatment standards for the hazardous waste and the Permittee meets such standards and other applicable conditions of this Permit.

VII.A.7.b. The Permittee may store wastes restricted under LAC 33:V.Chapter 22 solely for the purpose of accumulating quantities necessary to facilitate proper recovery, treatment, or disposal provided that it meets the requirements of LAC 33:V.2205 including, but not limited to, clearly marking each tank or container.

VII.A.7.c. The Permittee is required to comply with all applicable requirements of LAC 33:V.2245 as amended. Changes to the Waste Analysis Plan will be considered permit modifications at the request of the Permittee, pursuant to LAC 33:V.321.C.

VII.A.7.d. The Permittee shall review the waste analysis plan and analyze the waste when a process changes to determine whether the waste meets applicable treatment standards. Results shall be maintained in the operating record pursuant to Section III.C.1 and 2.

VII.A.8. Information Submittal for the Corrective Action Strategy

Failure to comply with any condition of the Permit, including information submittal, constitutes a violation of the Permit and is grounds for enforcement action, permit amendment, termination, revocation, suspension, or denial of permit renewal application. Falsification of any submitted information is grounds for termination of this Permit (LAC 33:V.323.B.3).

The Permittee shall ensure that all plans, reports, notifications, and other submissions to the Administrative Authority required by this Permit using the Corrective Action Strategy are signed and certified in accordance with LAC 33:V.Chapter 5, Subchapter B. A summary of the planned reporting requirements pursuant to the corrective action requirements of this Permit is found in Table 1 after section VIII. Five (5) copies each of these plans, reports, notifications or other submissions and one (1) electronic copy (3.5" IBM compatible disk or CD-ROM) of all portions thereof which are in word processing format shall be submitted to the Administrative Authority by Certified Mail or hand delivered to:

Louisiana Department of Environmental Quality
Office of Environmental Assessment
Environmental Technology Division
P.O. Box 4314
Baton Rouge, LA 70821-4314

All plans and reports required under the corrective action strategy must follow the guidelines for formatting and content found in the RECAP document to the extent practicable. Further guidance on formatting and content may be provided by the Administrative Authority, as deemed necessary.

VII.A.9. Data Retention

All raw data, such as laboratory reports, drilling logs, bench-scale or pilot-scale data, and other supporting information gathered or generated during activities undertaken pursuant to this Permit shall be maintained at the facility during the term of this Permit, including any reissued Permits.

VII.A.10. Management of Wastes

All solid wastes which are managed pursuant to a remedial measure taken under the corrective action process or as an interim measure addressing a release or the threat of a release from a solid waste management unit shall be managed in a manner protective of human health and the environment and in compliance with all applicable Federal, State and local requirements. As a response to the Louisiana legislature mandate La. R.S. 30:2272 (Act 1092 of the 1995 Regular Session) to develop minimum remediation standards, the LDEQ promulgated the Risk Evaluation Corrective Action Program (RECAP). RECAP's tiered approach to risk evaluation and corrective action establishes not only across the board numerical standards for most media, but also allows for the development of more site-specific numerical standards, as warranted. The Permittee is required to comply with all applicable requirements of RECAP. Approval of units for managing wastes and conditions for operating the units shall be granted through the permitting process.

VII.B. EMISSION STANDARDS - PROCESS VENTS, EQUIPMENT LEAKS, TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS (AA-BB AIR REGULATIONS)

VII.B.1. PERFORMANCE STANDARDS FOR EQUIPMENT LEAKS

VII.B.1.a. Operating Requirements

The Permittee shall comply with the applicable requirements under LAC 33:V.1717 to 1745 for all equipment associated with operations that treat, store, or dispose of hazardous waste with organic concentrations equal to or greater than 10 percent by weight for equal to or greater than 300 hours per calendar year.

VII.B.1.b. Monitoring Requirements

The Permittee shall monitor the following equipment for proper operation: pumps in light service, LAC 33:V.1719.A; compressors,

LAC 33:V.1721; pressure relief devices in gas/vapor service, LAC 33:V.1723; open-ended valves or lines, LAC 33:1727; valves in gas/vapor service or in light liquid service, LAC 33:V.1737; and pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors, LAC 33:V.1731.

VII.B.1.c. Recordkeeping Requirements

The Permittee shall maintain an up-to-date list identifying each piece of equipment to which LAC 33:V.Chapter 17.Subchapter B applies, and record all information required by LAC 33:V.1743.

VII.B.1.d. Reporting Requirements

A semiannual report shall be submitted to the Administrative Authority in accordance with the requirements of LAC 33:V.1745, based on the date of submittal of the annual report for the facility. A report is not required for a 6-month period during which all pumps in light service, compressors, pressure relief devices in gas/vapor service, open-ended valves or lines, valves in gas/vapor service or in light liquid service, pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors are operated such that during no period of 24 hours or longer did the devices operate continuously in noncompliance with the applicable operating conditions defined in LAC 33:V.Chapter 17.Subchapter B.

VII.B.2. STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS

The Permittee shall comply with the applicable requirements under LAC 33:V.1747 to 1767 for each permitted tank listed in Table VII.B.1. and for each container/container storage area listed in Table VII.B.2.

VII.B.2.a. Operating Requirements

VII.B.2.a(1) The Permittee shall comply with the applicable requirements of LAC 33:V. Chapter 17, Subchapter C.

VII.B.2.a(2) The Permittee shall install and maintain all regulated units and associated emission control technology in accordance with the detailed plans, schedules, information, and reports as contained in the Part II Permit Application.

- VII.B.2.b(3)** The Permittee shall, upon request, identify all 90-day accumulation tanks or containers, which contain or contact hazardous wastes with organic concentrations equal to or greater than 10 percent by weight and identify the emission control system requirements under LAC 33:V.1703 to 1715.

VII.B.2.b. Monitoring Requirements

- VII.B.2.b(1)** The pollution control methods used for tanks shall be inspected on a periodic basis.

VII.B.2.b(1)(i) Tanks meeting Level 1 controls shall be inspected at least once every year, LAC 33:V.1755.C.4.

VII.B.2.b(1)(ii) Tanks meeting Level 2 controls shall be inspected in accordance with LAC 1755.E.3 for internal floating roofs, LAC 33:V.1755.F.3 for external floating roofs, LAC 33:V.1755.G.3 for air emission control equipment, and LAC 33:V.1755.I.4 for closed vent control systems.

- VII.B.2.b(2)** The pollution control methods used for containers shall be inspected on a periodic basis.

VII.B.2.b(2)i Level 1 controls shall be inspected in accordance with LAC 33:V.1759.C.4.

VII.B.2.b(2)ii Level 2 controls shall be inspected in accordance with LAC 33:V.1759.D.4.

VII.B.2.b(2)iii Level 3 controls shall be inspected in accordance with LAC 33:V.1759.E.4.

VII.B.2.c. Recordkeeping Requirements

Air emission control design documentation shall be maintained in the facility operating record until the equipment is no longer in service. Records must be prepared and maintained for the various equipment and systems used at the facility.

- VII.B.2.c(1) Tanks using air emission control records must meet LAC 33:V.1765.B requirements.
- VII.B.2.c(2) Container storage areas using Level 3 controls must meet LAC 33:V.1765.D requirements.
- VII.B.2.c(3) Closed-vent system and control device systems meeting LAC 33:V.1761 must meet LAC 33:V.1765.E requirements.
- VII.B.2.c(4) Facilities exempted by LAC 33:V.1751.C must meet LAC 33:V.1765.F requirements.
- VII.B.2.c(5) Components identified as “unsafe to inspect and monitor” in accordance with LAC 33:V.1755.L and 1757.G must meet LAC 33:V.1765.G requirements.
- VII.B.2.c(6) Facilities that are governed by this Chapter and use alternate control systems meeting the emission control standards of 40 CFR 60, Subpart VV or 40 CFR 61, Subpart V must meet LAC 33:V.1765.H requirements.
- VII.B.2.c(7) All tanks or containers not using air emission controls in accordance with LAC 33:V.1747.D must meet LAC 33:V.1765.I requirements.

VII.B.2.d. Reporting Requirements

- VII.B.2.d.1. For each tank, surface impoundment, or container which manages hazardous waste that is exempted from using air emission controls, a written report shall be submitted to the Administrative Authority within fifteen (15) days of each occurrence when hazardous waste is placed in the waste management unit in noncompliance with the conditions of LAC 33:V.1751.C, as applicable. The written report shall contain the EPA identification number, facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent reoccurrence of the noncompliance.
- VII.B.2.d.2. For control devices used in accordance with the requirements of LAC 33:V.1735, a semiannual written report shall be submitted to the Administrative Authority, based on the date of submittal of the annual report, except as provided for in noncompliance

situations. The report shall describe each occurrence during the previous 6-month period when a control device is operated continuously for 24 hours or longer in noncompliance with the applicable operating values defined in LAC 33:V.1713.C.4 or when a flare is operated with visible emissions as defined in LAC 33:V.1707.D. The written report shall include the EPA identification number, facility name and address, an explanation why the control device could not be returned to compliance within 24 hours, and actions taken to correct the noncompliance.

VII.B.2.d.3. The report to the Administrative Authority in accordance with the requirements of VII.B.2.d.1. above is not required for a 6-month period during which all control devices subject to LAC 33:V, Subchapter C are operated such that during no period of 24 hour or longer did control devices operate continuously in noncompliance with the applicable operating values defined in LAC 33:V.1713.C.4 or a flare operate with visible emissions as defined in LAC 33:V.1707.D.

VII.B.2.d.4. All reports shall be signed and dated by an authorized representative of the Permittee as per LAC 33:V.507.

**TABLE VII.B.1
EMISSION CONTROLS FOR TANKS**

Tank Identification	CFR Reference(s)	LAC Reference(s)	Air Emission Controls	Visual Inspection	Monitoring
130-T12-HW	40 CFR 264.1084(b)(1)(i) (a)	LAC 33:V.1755.B.1.a.i	Level 1 Controls	Initially	Annually
131-T13-HW	40 CFR 264.1084(b)(1)(i) (a)	LAC 33:V.1755.B.1.a.i	Level 1 Controls	Initially	Annually
318-T3-HW	40 CFR 264.1084(b)(1)(i) (a)	LAC 33:V.1755.B.1.a.i	Level 1 Controls	Initially	Annually

**TABLE VII.B.2
EMISSION CONTROLS FOR CONTAINERS/CONTAINER STORAGE AREAS**

Container/Container Storage Area Identification	CFR Reference(s)	LAC Reference(s)	Air Emission Controls	Visual Inspection	Monitoring
Container Storage Facility (Building 159)	40 CFR 264.1086(c) and (d)	LAC 33:V.1759.C and D	Level 1 and 2 Controls	Initially	Annually

VII.C. SPECIFIC CONDITION - CLOSURE

Pursuant to Section 3005(j)(1) of the Hazardous and Solid Waste Amendments of 1984, the Permittee shall close any closing units in accordance with the following provisions:

- VII.C.1.** Other than consolidation of any wastes from the sites in conformance with LAC 33:V.Chapter 22, Land Disposal Restrictions, the Permittee shall not place waste prohibited by LAC 33:V.Chapter 22 into any closing units;
- VII.C.2.** The Permittee shall perform unit closures in accordance with the Closure Plan(s) as approved at the time of closure, and which meet(s) all relevant State and Federal closure requirements at the time of closure; and
- VII.C.3.** The Permittee shall notify the Administrative Authority in writing at least 60 days prior to commencement of closure.

VIII. SPECIAL CONDITIONS PURSUANT TO HAZARDOUS AND SOLID WASTE AMENDMENTS—CORRECTIVE ACTION STRATEGY

Corrective Action for Releases: Section 3004(u) of RCRA, as amended by the Hazardous and Solid Waste Amendments (HSWA), and LAC 33:V.3322 require that permits issued after November 8, 1984, address corrective action for releases of hazardous waste or hazardous constituents from any solid waste management unit (SWMU) at the facility, regardless of when the waste was placed in the unit.

EPA's traditional RCRA corrective action approach is structured around several elements common to most activities. In the first phase, RCRA facility assessment (RFA), EPA or the authorized state assesses the facility to identify releases and determine the need for corrective action. In the second phase, RCRA facility investigation (RFI), the facility conducts a more detailed investigation to determine the nature and extent of contaminants released to ground water, surface water, air, and soil. If remedial action is needed, a third phase, corrective measures study (CMS), is started. During this phase, the facility conducts a study, which when completed, describes the advantages, disadvantages, and costs of various cleanup options. After selection of a final remedy, the fourth phase, corrective measures implementation (CMI), is implemented. The facility is required to design, construct, operate, maintain, and monitor the final remedy(s).

The Corrective Action Strategy (CAS) is an alternate corrective action approach that can be implemented during any phase of corrective action. The Permittee shall use the CAS approach as the framework for corrective action, and shall use the RECAP for screening and media-specific cleanup standards.

VIII.A. ALTERNATE CORRECTIVE ACTION

VIII.A.1. This Permit will utilize the CAS Guidance Document (www.epa.gov/Arkansas/6pd/rcra_c/pd-o/riskman.htm) developed by the U.S. Environmental Protection Agency (EPA) Region 6 in order to accelerate corrective action at RCRA facilities. The CAS Guidance Document shall be utilized to the fullest extent practicable for planning and implementation of the corrective action. The CAS in this Permit shall not supersede existing Federal, State, and local regulations. The two primary objectives are to prioritize corrective action at the facility, and streamline corrective action administrative procedures, resulting in the protection of human health and the environment.

The CAS is a performance-based approach; using data quality objectives, investigations begin with the endpoint in mind. The CAS is a risk management strategy that can and will be implemented during any phase of corrective action. Performance standards are established at the beginning of the corrective action process, allowing earlier and more focused implementation. Releases are screened using RECAP screening numbers to determine the priority of corrective action, and remedial alternatives are

selected on the basis of their ability to achieve and maintain the established performance standards.

There is no one specific path through the CAS process. The CAS is a facility-wide approach, focusing corrective action on releases that pose the greatest risk first. Screening releases will also enable some areas of interest to qualify for no further action at this time (Section VIII.A.3.a.), thus resources can be used to best benefit the protection of human health and the environment.

The traditional RCRA corrective action process and reports (i.e., RFIs, CMSs, CMIs, etc.) are not elements of the CAS. However, the use of information and reports from the traditional corrective action process, if available, is encouraged, in addition to new site-specific information.

The Administrative Authority, through an agency-initiated permit modification, may remove the Corrective Action Strategy as the means of facility-wide corrective action in the case of the failure of the Permittee to disclose information, adhere to agreed schedules, or show adequate progress; or should an impasse occur between the Permittee and the Administrative Authority. The Administrative Authority will institute other means of corrective action (such as traditional corrective action) at the facility through modification of this permit.

VIII.A. 2. Performance Standards

Expectations for the outcome of corrective action at a facility are established in the CAS by three performance standards. The Permittee's proposed performance standards shall be presented during the scoping meeting. The Permittee must justify the proposed performance standards through evaluation and documentation of land use, ground water designation (current and reasonably expected future use), types of receptors present, exposure pathways, etc.; as described in RECAP, Chapter 2. Through the application of the performance standards and RECAP, the Permittee and Administrative Authority shall determine whether a release must be addressed through corrective action, and whether implemented corrective actions are protective of human health and the environment.

Within thirty (30) days following the scoping meeting, the Permittee will submit the performance standards in writing for approval. The Administrative Authority may either approve the performance standards proposed by the Permittee or establish performance standards that the Administrative Authority deems necessary to protect human health and the environment.

The three CAS performance standards are defined below. The order in which the performance standards are listed does not indicate that one

performance standard takes priority over another. All applicable performance standards must be achieved by the Permittee.

VIII.A.2.a. Source Control Performance Standard

Source control refers to the control of materials that include or contain hazardous wastes or hazardous constituents that act as a reservoir for migration of contamination to soil, sediment, ground water, surface water, or air, or as a source for direct exposure.

The facility must determine if source material is present. Removal, containment, treatment, or a combination of the three, must be evaluated on a case-by-case basis. Controlling source material is a predominating issue in the CAS, and must be addressed to ensure protectiveness over time. Prioritization of the SWMUs does not mean avoidance of controlling source materials.

VIII.A.2.b. Statutory and Regulatory Performance Standard

Applicable statutory and regulatory requirements (Federal, State, and local) must be identified. These requirements may dictate media-specific contaminant levels (e.g., maximum contaminant levels (MCLs) in drinking water) that must be achieved and may become a performance standard for the Permittee.

VIII.A.2.c. Final Risk Goal Performance Standard

The final risk goal is the level of protection to be achieved and maintained by the Permittee. The final risk goal shall be based on site-specific issues including land use, special subpopulations, contaminant concentrations based on acceptable risk, location at which the levels are measured, and the remediation time frame, as specified by RECAP.

One final risk goal may apply to the entire facility, but it is more likely that different releases will require different final risk goals due to variations in location of releases, land use, proximity of receptors, etc. The final risk goal will be based on sound risk assessment methodologies (Permit section VIII.A.3).

VIII.A.3. Use of RECAP

The Louisiana Department of Environmental Quality Risk Evaluation/Corrective Action Program (RECAP), dated October

20, 2003 (or the latest edition referenced in LAC 33:I.Chapter 13) shall be used by the Permittee to determine the need for further corrective actions under this permit. The RECAP consists of a tiered framework comprised of a Screening Option (SO), and three Management Options (MO). The tiered management options allow site evaluation and corrective action efforts to be tailored to site conditions and risks. As the MO level increases, the approach becomes more site-specific and hence, the level of effort required to meet the objectives of the Option increases.

The RECAP shall be used by the Permittee to evaluate data quality and data usability (RECAP Section 2.4 and 2.5), to determine the identity of an area of investigation (AOI) as described in RECAP Section 2.6, and for estimations of Area of Investigation Concentrations and Groundwater Compliance Concentrations for each media as defined in RECAP Section 2.8.

The RECAP shall be used by the Permittee to evaluate land use as described in RECAP Section 2.9, and groundwater/aquifer use as described in RECAP Section 2.10.

The RECAP shall be used by the Permittee to prioritize area of concern (AOCs), SWMUs, and AOIs that require remediation so site investigations are focused on the release areas that pose the greatest risk. As the CSM is compiled, the Permittee shall assess historical data (RECAP Section 2.5) and use the following management options, as appropriate, to address each release site.

VIII.A.3.a. Use of the Screening Option - The Permittee shall use the Screening Standards (SS) which are LDEQ-derived screening numbers for soil and groundwater for non-industrial and industrial land use scenarios. The SS shall be used to demonstrate that an AOI does not pose a threat to human health and the environment and, hence does not require further action at this time (NFA-ATT) or that further evaluation is warranted under a higher Management Option.

VIII.A.3.b. Use of Management Option 1 – The Permittee shall use Management Option 1 (MO-1) which provides a RECAP standard (RS) derived for non-industrial and industrial exposure scenarios using currently recommended default exposure parameters and toxicity values. Under MO-1, an AOI may warrant no further action at this time (NFA-ATT), or if an exposure, source, or compliance concentration detected at the AOI exceeds a MO-1 limiting RS, then the Permittee

may; (1) remediate to the MO-1 limiting RS (and comply with closure/post closure requirements for MO-1), or (2) proceed with a MO-2 or MO-3 evaluation.

VIII.A.3.c. Use of Management Option 2 – The Permittee shall use Management Option 2 (MO-2) which provides for the development of soil and groundwater RS using site-specific data with specified analytical models to evaluate constituent fate and transport at the AOI. The results of this evaluation shall be used in conjunction with standard reasonable maximum exposure (RME) assumptions to identify site-specific MO-2 RS. Under MO-2, an AOI may warrant no further action at this time (NFA-ATT), or if an exposure, source, or compliance concentration detected at the AOI exceeds a MO-2 limiting RS, then the Permittee may; (1) remediate to the MO-2 limiting RS (and comply with closure/post closure requirements for MO-2), or (2) proceed with a MO-3 evaluation.

VIII.A.3.d. Use of Management Option 3 – The Permittee shall use Management Option 3 (MO-3) which provides the option of using site-specific data for the evaluation of exposure and the evaluation of environmental fate and transport at the AOI. The results of the site-specific evaluation may be to develop site-specific MO-3 RS. Under MO-3, an AOI may warrant no further action at this time (NFA-ATT), or if an exposure, source, or compliance concentration detected at the AOI exceeds a MO-3 limiting RS, then the Permittee shall; (1) remediate to the MO-3 RS, (2) conduct confirmatory sampling, and (3) comply with closure/post closure requirements for MO-3.

VIII.A.4. Corrective Action for Releases Beyond Facility Boundary: Section 3004(v) of RCRA as amended by HSWA, and State regulations promulgated as LAC 33:V.3322.C require corrective actions beyond the facility property boundary, where necessary to protect human health and the environment, unless the Permittee demonstrates that, despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where offsite access is denied.

VIII.A.5. Financial Responsibility: Assurances of financial responsibility for corrective action shall be provided by the Permittee as specified in the Permit following major modification for remedy selection.

VIII.A.6. Summary of Corrective Action Activities: A summary of the corrective action activities associated with the facility is provided in Appendix 1 of Section VIII of this permit. AOCs and SWMUs that are currently being managed or proposed for management under a prescribed corrective action program (e.g., groundwater order, corrective action order, CERCLA) are identified in Section VIII, Table 3 of this permit.

VIII.B. PROJECT DEVELOPMENT AND SCOPING MEETING

VIII.B.1. Notice of Intent

To begin a Corrective Action Strategy (CAS) project, the Permittee must submit to the Administrative Authority a notice of intent to conduct corrective action using the CAS. The timing of the submission of the notification of intent may be determined at the discretion of the Administrative Authority. The notice of intent should state the following in a concise manner:

VIII.B.1.a. Commitment to conduct corrective action under a formal agreement (i.e., under this permit);

VIII.B.1.b. Request to conduct corrective action using the CAS;

VIII.B.1.c. General information regarding site location;

VIII.B.1.d. General information regarding the facility's operational history;

VIII.B.1.e. General discussion on how the Permittee will proceed through the CAS;

VIII.B.1.f. Brief description of proposed performance standards for corrective action; and

VIII.B.1.g. Request for a scoping meeting between the Permittee and the Administrative Authority.

VIII.B.2. The scoping meeting will serve as the first CAS milestone where the Permittee and the Administrative Authority identify expectations concerning CAS implementation. The length and extent of the meeting will depend on the complexity of the site. Agreements on land use, groundwater classification, and expectations for remediation goals will be discussed during the scoping meeting(s). During the scoping meeting the Permittee should present the following information to the Administrative Authority:

- VIII.B.2.a.** Preliminary conceptual site model;
- VIII.B.2.b.** Discussions on history of corrective action at the facility, including site investigations, risk evaluations or risk assessments, interim measure/stabilizations and final remedies implemented;
- VIII.B.2.c.** Proposed performance standards for the facility with justification, and potential risk management approaches;
- VIII.B.2.d.** Discussions on how the Permittee plans to use the CAS to meet its corrective action obligations, including permitting and compliance issues;
- VIII.B.2.e.** Communication strategy (i.e., how the Permittee and Administrative Authority will share information about the site);
- VIII.B.2.f.** Site-specific concerns (i.e., sensitive environments or special subpopulations);
- VIII.B.2.g.** Need for interim measures or stabilization activities, if necessary;
- VIII.B.2.h.** Schedule for submittal of the CAS workplan and proposed schedule for conducting and completing CAS requirements, including public participation; and
- VIII.B.2.i.** A plan for dissemination of information to the public regarding site investigation activities and results prepared in accordance with the guidelines in LAC 33:V. Chapter 7 to be submitted to the Administrative Authority for review and approval. The plan must allow for public comment at critical junctures of the CAS process (e.g., during agreement on performance standards, remedy proposals, and closeout).

Unless otherwise specified by the Administrative Authority, the scoping meeting will be held at the facility.

The Administrative Authority will either approve the performance standards proposed by the Permittee or establish performance standards that the Administrative Authority deems necessary to protect human health and the environment. Since approved performance standards are to be part of the final remedy(s), public participation shall be implemented at this time.

VIII.C. REPORTING REQUIREMENTS

- VIII.C.1.** The Permittee shall submit, in accordance with Section VII.A.8, signed reports of all activities (e.g., RER, RMP) conducted pursuant to the provisions of this Permit beginning upon notification by the Administrative Authority. The reporting schedule shall be determined on a case by case basis by the Administrative Authority. These reports shall contain the information required by CAS, as well as the following:
- VIII.C.1.a.** A description of the work completed and an estimate of the percentage of work completed;
 - VIII.C.1.b.** Summaries of all findings, including summaries of laboratory data;
 - VIII.C.1.c.** Summaries of all problems or potential problems encountered during the reporting period and actions taken to rectify problems;
 - VIII.C.1.d.** Projected work for the next reporting period;
 - VIII.C.1.e.** Summaries of contacts pertaining to corrective action or environmental matters with representatives of the local community, public interest groups or State government during the reporting period;
 - VIII.C.1.f.** Changes in key project personnel during the reporting period; and
 - VIII.C.1.g.** Summaries of all changes made in implementation during the reporting period.
- VIII.C.2.** Copies of other reports relating to or having bearing upon the corrective action work (e.g., inspection reports), drilling logs and laboratory data shall be made available to the Administrative Authority upon request.
- VIII.C.3.** In addition to the written reports as required in Section VIII.C.1 and VIII.C.2. above, at the request of the Administrative Authority, the Permittee shall provide status review through briefings with the Administrative Authority.
- VIII.C.4.** The determination and approval of remedy selections, schedules of submittals and minor changes to any corrective action workplans may be made by the Administrative Authority during scoping or status review briefings as described in Section VIII.C.3.

VIII.D. SPECIFIC CONDITION – CONCEPTUAL SITE MODEL

At the discretion and within the time frame specified by the Administrative Authority, the Permittee shall submit to the Administrative Authority a preliminary Conceptual Site Model (CSM) which will cover background information and current conditions at the facility. At the discretion of the Administrative Authority, the CSM may be required for on-going corrective action or for newly identified SWMU(s) or AOC(s) according to Section VIII.L of this permit (See Appendix 1, Ongoing Corrective Action). **Any requirements for a CSM would be specified in Appendix 1 and Table 1 of the HSWA Section by the Administrative Authority.**

The CSM shall consider and identify all data gaps. The CSM shall identify the known or potential constituent source(s) (primary as well as secondary and tertiary sources if applicable), routes of constituent migration, exposure media, exposure points and pathways, receptors and source media to be evaluated under the RECAP. The CSM shall be considered as the “base document” to be prepared and updated by the facility as new information is gathered during investigations. The CSM shall be used by the facility to make decisions regarding risk management options, ecological risk, and monitored natural attenuation determinations (RECAP Section 2.12), or technical impracticability (TI) waiver determinations, when appropriate. The CSM shall be divided into Profiles as listed below.

VIII.D.1. Facility Profile

The Permittee shall include in the CSM a Facility Profile which shall summarize the regional location, pertinent boundary features, general facility structures, process areas, and locations of solid waste management units or other potential sources of contaminant migration from the routine and systematic releases of hazardous constituents to the environment (e.g., truck or railcar loading/unloading areas). The Permittee shall also include historical features that may be potential release areas because of past waste management practices. The Facility Profile shall include:

VIII.D.1.a. Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

VIII.D.1.a.(1) General geographic location;

V.III.D.1.a.(2) Property lines with the owners of all adjacent property clearly indicated;

VIII.D.1.a.(3) Facility structures, process areas and maintenance areas;

VIII.D.1.a.(4) Any other potential release areas shall be delineated, such as railcar loading/unloading areas or any other AOI as described in RECAP Section 2.6; and

VIII.D.1.a.(5) Locations of historical features that may be potential release areas or any areas of past solid and hazardous waste generation, treatment, storage or disposal activities.

VIII.D.1.b. The Facility Profile shall also include a description of ownership and operation of the facility.

VIII.D.1.c. Approximate dates or periods of past waste spills, identification of the materials spilled, the amount spilled, the location where spilled, and a description of the response actions conducted (local, state, federal, or private party response units), including any inspection reports or technical reports generated as a result of the response.

VIII.D.2. Land Use and Exposure Profile

The Permittee shall include in the CSM a Land Use and Exposure Profile which includes surrounding land uses (industrial and non-industrial, as described in RECAP Sections 2.9.1 and 2.9.2), resource use locations (water supply wells, surface water intakes, etc.), beneficial resource determinations (groundwater classifications as described in RECAP Section 2.10), natural resources (wetlands, etc.), sensitive subpopulation types and locations (schools, hospitals, nursing homes, day care centers, etc.), applicable exposure scenarios, and applicable exposure pathways identifying the specific sources, releases, migration mechanisms, exposure media, exposure routes and receptors. The Land Use and Exposure Profile shall include:

VIII.D.2.a. Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

VIII.D.2.a.(1) Surrounding land uses, resource use locations, and natural resources/wetlands;

VIII.D.2.a.(2) Locations of sensitive subpopulations; and

VIII.D.2.a.(3) An exposure pathway flowchart which outlines sources, migration pathways, exposure media and potential receptors as depicted in Figure 8 (Conceptual Model Example) of RECAP.

VIII.D.3. Physical Profile

The Permittee shall include in the CSM a Physical Profile which shall describe the factors that may affect releases, fate and transport, and receptors, including; topography, surface water features, geology, and hydrogeology. The Physical Profile shall include:

VIII.D.3.a. Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V.Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

VIII.D.3.a.(1) Topographic maps with a contour interval of five (5) or ten (10) feet, a scale of one inch to 100 feet (1:100), including hills, gradients, and surface vegetation or pavement;

VIII.D.3.a.(2) Surface water features including routes of all drainage ditches, waterways, direction of flow, and how they migrate to other surface water bodies such as canals and lakes;

VIII.D.3.a.(3) Regional geology including faulting and recharge areas, as well as local geology depicting surface features such as soil types, outcrops, faulting, and other surface features;

VIII.D.3.a.(4) Subsurface geology including stratigraphy, continuity (locations of facies changes, if known), faulting and other characteristics;

VIII.D.3.a.(5) Maps with hydrogeologic information identifying water-bearing zones, hydrologic parameters such as transmissivity, and conductivity. Also locations and thicknesses of aquitards or impermeable strata; and

VIII.D.3.a.(6) Locations of soil borings and production and groundwater monitoring wells, including well log information, and construction of cross-

sections which correlate substrata. Wells shall be clearly labeled with ground and top of casing elevations (can be applied as an attachment).

VIII.D.4. Release Profile

The Permittee shall include in the CSM a Release Profile which shall describe the known extent of contaminants in the environment, including sources, contaminants of concern (COC), areas of investigations, distribution and magnitude of known COCs with corresponding sampling locations, and results of fate and transport modeling depicting potential future extent/magnitude of COCs. The Release Profile shall include:

VIII.D.4.a. Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V. Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

VIII.D.4.a.(1) Estimations of source concentrations, exposure concentrations and compliance concentrations for each affected media as defined in Section 2.8 of RECAP;

VIII.D.4.a.(2) Isopleth maps depicting lateral extent and concentrations of COCs;

VIII.D.4.a.(3) Results of fate and transport modeling showing potential exposure concentrations and locations; and

VIII.D.4.a.(4) Locations of potential sources including past or present waste units or disposal areas and all SWMUs.

VIII.D.4.b. Table(s) depicting the following information. Unit/disposal area characteristics, including but not limited to: location of unit/disposal area; type of unit/disposal area; design features; operating practices (past and present); period of operation; age of unit/disposal area; general physical condition; and method used to close the unit/disposal area.

VIII.D.4.c. Table(s) depicting waste characteristics, including but not limited to: type of waste placed in the unit (hazardous classification, quantity, chemical

composition), physical and chemical characteristics (physical form, description, temperature, pH, general chemical class, molecular weight, density, boiling point, viscosity, solubility in water, solubility in solvents, cohesiveness, vapor pressure); and migration and dispersal characteristics of the waste (sorption coefficients, biodegradability, photodegradation rates, hydrolysis rates, chemical transformations).

VIII.D.5. Ecological Profile

The Permittee shall include in the CSM an Ecological Profile that shall describe the physical relationship between the developed and undeveloped portions of the facility, the use and level of disturbance of the undeveloped property, and the type of ecological receptors present in relation to completed exposure pathways. When compiling data for the Ecological Profile, current as well as future impacts to receptors and/or their habitats shall be considered. The Ecological Profile shall include:

- VIII.D.5.a.** A history and description of the developed property on the facility, including structures, process areas, waste management units, and property boundaries.
- VIII.D.5.b.** A history and description of the undeveloped property, including habitat type (wetland, grassy area, forest, ponds, etc.). Include a description of the primary use, degree and nature of any disturbance, along with proximity to drainage ditches, waterways and landfill areas.
- VIII.D.5.c.** A description of the site receptors in relation to habitat type, including endangered or protected species, mammals, birds, fish, etc.
- VIII.D.5.d.** A description of the relationship between release areas and habitat areas, specifically relating chemicals of potential ecological concern (COEC) to ecological receptors.
- VIII.D.5.e.** An ecological checklist as described in Section 7.0 of RECAP. An ecological checklist (presented in Appendix C, Form 18 of the RECAP) shall be used to determine if a tier 1 (screening level) Ecological Risk Assessment (ERA) is warranted.

VIII.D.6. Risk Management Profile

The Permittee shall include in the CSM a Risk Management Profile that shall describe how each AOI at the facility will be managed for the protection of human health and the environment. The Risk Management Profile will serve as documentation of the results of the site ranking system (described in Section 2.2 of RECAP). The Risk Management Profile will also document the criteria and verify that the SO, MO-1, MO-2 or MO-3 is appropriate for application at each AOI. The Risk Management Profile shall include:

- VIII.D.6.a.** A table for tracking the management options for each AOI, and the determination made, whether an AOI is deemed for no further action (NFA) or is going to use either the SO, MO-1, MO-2 or MO-3 management option.
- VIII.D.6.b.** A list of identified site-wide data gaps for further investigation.
- VIII.D.6.c.** Documentation of all interim measures which have been or are being undertaken at the facility, including under State or Federal compliance orders, other than those specified in the Permit. This documentation shall include the objectives of the interim measures and how the measure is mitigating a potential threat to human health or the environment and/or is consistent with and integrated into requirements for a long term remedial solution.

VIII.E. INTERIM MEASURES

- VIII.E.1.** If during the course of any activity initiated under this Permit, the Administrative Authority determines that a release or potential release of hazardous constituents from a SWMU poses a threat to human health and the environment, the Administrative Authority may require interim measures. The Administrative Authority shall determine the specific measure(s) or require the Permittee to propose a measure(s). The interim measure(s) may include a permit modification, a schedule for implementation, and a written plan. The Administrative Authority may modify this Permit according to LAC 33:V.321 to incorporate interim measures into the Permit. However, depending upon the nature of the interim measure, a permit modification may not be required.
- VIII.E.2.** The Permittee may propose interim measures at any time. The proposal shall include a written plan and a schedule for implementation.

VIII.E.3. The Administrative Authority may determine the need for an interim measure at any time during the corrective action process. The Administrative Authority shall notify the Permittee in writing of the requirement to perform an interim measure. The following factors will be considered by the Administrative Authority in determining the need for interim measures and the need for permit modification:

VIII.E.3.a. Time required to develop and implement a final remedy;

VIII.E.3.b. Actual and potential exposure to human and environmental receptors;

VIII.E.3.c. Actual and potential contamination of drinking water supplies and sensitive ecosystems;

VIII.E.3.d. The potential for further degradation of the medium in the absence of interim measures;

VIII.E.3.e. Presence of hazardous wastes in containers that may pose a threat of release;

VIII.E.3.f. Presence and concentration of hazardous waste including hazardous constituents in soil that have the potential to migrate to ground water or surface water;

VIII.E.3.g. Weather conditions that may affect the current levels of contamination;

VIII.E.3.h. Risks of fire, explosion, or accident; and

VIII.E.3.i. Other situations that may pose threats to human health and the environment.

VIII.E.4. Upon approval of the Interim Measure(s) workplan and completion of the Interim Measure implementation, the Permittee will submit a report to the Administrative Authority describing the completed work.

VIII.E.5. At anytime during or after the Interim Measures, including the issuance of an NFA-ATT, the Administrative Authority may require the Permittee to submit the SWMU(s) for further corrective action.

VIII.F. CAS (CORRECTIVE ACTION STRATEGY) WORKPLAN

VIII.F.1. The CAS workplan that describes site investigation activities for corrective action shall be submitted to the Administrative Authority within 180 calendar days after the scoping meeting between the

Permittee and the Administrative Authority. The CAS workplan must address releases of hazardous waste or hazardous constituents to all media, unless otherwise indicated on Table 2, for those SWMUs listed in Table 2. The focus of the site investigation phase for corrective action is to collect data to fill in data gaps identified in the CSM. The corrective action investigations may be conducted in phases if warranted by site conditions, contingent upon approval by the Administrative Authority.

- VIII.F.1.a.** The CAS workplan shall describe the management options (MO) for each AOI/release area, data quality objectives for achieving each management option, and proposals for release characterizations (sampling and analysis/quality assurance plans) to support the data quality objectives (DQO's). (DQOs are determined based on the end use of the data to be collected, and the DQO development process should be integrated into project planning and refined throughout the CAS implementation. DQOs shall be used to 1) ensure that environmental data are scientifically valid, defensible, and of an appropriate level of quality given the intended use, and 2) expedite site investigations. The CAS Work Plan is required to have DQOs that are developed to support the performance standard for each release.) The CAS workplan shall detail all proposed activities and procedures to be conducted at the facility, the schedule for implementing and completing such investigations, the qualifications of personnel performing or directing the investigations, including contractor personnel, and the overall management of the site investigations. The scope of work for the site investigation can be found in RECAP Appendix B.
- VIII.F.1.b.** The CAS workplan shall describe sampling, data collection quality assurance, and data management procedures, including formats for documenting and tracking data and other results of investigations, and health and safety procedures.
- VIII.F.1.c.** Development of the CAS workplan and reporting of data shall be consistent with the following EPA and State guidance documents or the equivalent thereof:
- VIII.F.1.c.(1)** Guidance for the Data Quality Assessment, Practical Methods for Data Analysis. QA97 Version EPA QA/G-9. January 1998;
- VIII.F.1.c.(2)** Guidance for the Data Quality Objectives Process. EPA QA/G-4. September 1994;

VIII.F.1.c.(3) Data Quality Objectives Remedial Response Activities. EPA/540/G87-003. March 1987;

VIII.F.1.c.(4) Guidance on Quality Assurance Project Plans. EPA QA/G-5. February 1998;

VIII.F.1.c.(5) Interim EPA Data Requirements for Quality Assurance Project Plans. EPA Region 6, Office of Quality Assurance. May 1994;

VIII.F.1.c.(6) 29 CFR 1910.120 (b) for the elements to Health and Safety plans;

VIII.F.1.c.(7) RCRA Groundwater Monitoring: Draft Technical Guidance EPA/530-R-93-001 November 1992;

VIII.F.1.c.(8) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods; SW-846, 3rd Edition. November 1992, with revisions;

VIII.F.1.c.(9) LDEQ Handbook - Construction of Geotechnical Boreholes and Groundwater Monitoring Systems," prepared by the LDEQ and the Louisiana Department of Transportation and Development, dated May, 1993. This document is printed by and available from the Louisiana Department of Transportation and Development, Water Resources Section, P. O. Box 94245, Baton Rouge, Louisiana 70804-9245; and

VIII.F.1.c.(10) LAC 33:I. Chapter 13 and Louisiana Department of Environmental Quality Risk Evaluation/Corrective Action Program (RECAP), October 20, 2003 with revisions.

VIII.F.2. After the Permittee submits the CAS workplan, the Administrative Authority will either approve, disapprove, or otherwise modify the CAS workplan in writing.

If the Administrative Authority approves the workplan, the Permittee shall begin implementation of the plan within two weeks (14 days) of receipt of approval, and implement it according to the schedule contained in the plan. All approved workplans become incorporated into this Permit as per Permit section VII.A.9.

In event of disapproval (in whole or in part) of the workplan, the Administrative Authority shall specify deficiencies in writing. The Permittee shall modify the CAS workplan to correct these within the time frame specified in the notification of disapproval by the Administrative Authority. The modified workplan shall be submitted in writing to the Administrative Authority for review. Should the Permittee take exception to all or part of the disapproval, the Permittee shall submit a written statement of the ground for the exception within 10 days of receipt of the disapproval.

- VIII.F.3.** The Administrative Authority shall review for approval as part of the CAS workplan or as a new workplan any plans developed pursuant to Permit section VIII.L. addressing further investigations of newly-identified SWMUs or AOIs, or Permit section VIII.M. addressing new releases from previously-identified SWMUS or AOIs.

VIII.G. IMPLEMENTATION OF SITE INVESTIGATION ACTIVITIES UNDER CAS

No later than (14) calendar days after the Permittee has received written approval from the Administrative Authority for the CAS workplan, the Permittee shall implement the site investigation activities according to the schedules and in accordance with the approved CAS workplan and the following:

- VIII.G.1.** The Permittee shall notify Administrative Authority at least 10 days prior to any field sampling, field-testing, or field monitoring activity required by this Permit to give LDEQ personnel the opportunity to observe investigation procedures and/or split samples.
- VIII.G.2.** Deviations from the approved CAS workplan, which are necessary during implementation, must be approved by the Administrative Authority and fully documented and described in the progress reports (Permit section VIII.C.) and the final Risk Management Plan, Section VIII.J.

VIII.H. RISK EVALUATION REPORT

Within ninety (90) days after completion of the site investigation the Permittee shall submit a Risk Evaluation Report (RER) to the Administrative Authority for Approval. The Risk Evaluation Report shall document the results of the site investigation activities, and the evaluation of the impacts from releases. If the Administrative Authority determines the Risk Evaluation Report does not fully meet the objectives stated in the CAS workplan (Permit section VIII.F.), the Administrative Authority shall notify the Permittee in writing of the report's deficiencies, and specify a due date for submittal of a revised Final Report to the Administrative Authority.

- VIII.H.1.** The Permittee shall screen site-specific data using the appropriate RECAP standard (RS) for each AOI (depending on the MO), evaluate impacts from releases with exposure scenario evaluations, and update the Risk Management Profile of the CSM.
- VIII.H.2.** The report shall include, but not be limited to, the following:
 - VIII.H.2.a.** Documentation of site investigation activities and results;
 - VIII.H.2.b.** Evaluation of exposure scenarios to document impacts from releases;
 - VIII.H.2.c.** Results of screening activities using RECAP standards (RS), including SO, MO-1, MO-2, or MO-3 RS for each media;
 - VIII.H.2.d.** The revised CSM with updated profiles which incorporate investigation and screening results; and
 - VIII.H.2.e.** Proposed revisions to performance standards based on new information (e.g., change in land use, difference in expected receptors and/or exposure, or other differences in site conditions), if warranted.

VIII.I. REMEDY EVALUATION/SELECTION

Upon completion and approval of the Risk Evaluation Report, the Permittee shall proceed with the evaluation of remedial alternatives to complete corrective action for each AOI. Remediation standards for each AOI are described in Permit sections VIII.A.2.a. - VIII.A.2.c. The remedy selections will be presented to the Administrative Authority in the Risk Management Plan.

- VIII.I.1.** The Permittee shall select remedies for each AOI that shall:
 - VIII.I.1.a.** attain compliance with corrective action objectives for releases of hazardous waste and/or hazardous constituents, as established in the Conceptual Site Model or in later investigations approved by the Administrative Authority;
 - VIII.I.1.b.** control sources of releases;
 - VIII.I.1.c.** meet acceptable waste management requirements; and
 - VIII.I.1.d.** protect human health and the environment.
- VIII.I.2.** The Permittee shall evaluate the use of presumptive remedies and innovative technologies to achieve the appropriate remediation standards for each AOI.

- VIII.I.3.** The Permittee shall review the current interim measures/ stabilization activities to evaluate if these measures meet all the criteria for final remedy.
- VIII.I.4.** If under certain site-specific conditions, or when it is not technically or economically feasible to attain the corrective action objectives, the Permittee may propose to use institutional controls to supplement treatment or containment-based remedial actions upon approval of the Administrative Authority (Section 2.15 of RECAP).
- VIII.I.5.** The Permittee shall propose corrective action remedies in accordance with Chapter IV of the RCRA Corrective Action Plan (Final), May 1994, OSWER Directive 9902.3 -2A.

VIII.J. RISK MANAGEMENT PLAN

After the evaluation of remedial alternatives, the remedy selections shall be documented in the Risk Management Plan and Summary. The plan shall be submitted within sixty (60) days of approval of the Risk Evaluation Report.

VIII.J.1. The Risk Management Plan shall at a minimum include:

- VIII.J.1.a.** A summary of the remedial alternatives for each AOI and the rationale used for remedy selection;
- VIII.J.1.b.** The final conceptual site model (CSM) with remedies, including locations of AOIs addressed by a risk management activity, constituent of concern (COC) concentrations that represent the long-term fate and transport of residual COC's and the exposure pathways affected by the risk management activity;
- VIII.J.1.c.** Cost estimates and implementation schedules for final remedies;
- VIII.J.1.d.** Remedy design and implementation precautions, including special technical problems, additional engineering data required, permits and regulatory requirements, property access, easements, and right-of-way, special health and safety requirements, and community relations activities;
- VIII.J.1.e.** Remedy performance criteria and monitoring:

The Permittee shall identify specific criteria (such as land use changes, fate and transport model verification and constructed remedy performance) that will be evaluated to demonstrate that

the risk management activity implemented will remain protective. A schedule for periodic performance review (such as monitoring data summaries, possibly including graphical and statistical analyses) shall be established to demonstrate that the implemented activities are consistently achieving and maintaining desired results. Further, a mechanism shall be established to re-evaluate risk management activities in the event the implemented action does not achieve and maintain the performance standards;

VIII.J.1.f. Contingency plans; and

VIII.J.1.g. Description and schedules for performance reviews.

VIII.J.2. After the Permittee submits the Risk Management Plan and Summary, the Administrative Authority will either approve or disapprove them in writing. Should the Permittee take exception to the disapproval, decision, or directive, the Permittee shall notify the Administrative Authority.

VIII.J.3. If the Administrative Authority determines the Risk Management Plan and Summary do not fully meet the remedial objectives, the Administrative Authority may disapprove the Risk Management Plan and Summary. In addition the Administrative Authority may require the Permittee to evaluate additional remedies or particular elements of one or more proposed remedies. If the Administrative Authority disapproves the report, the Administrative Authority shall notify the Permittee in writing of the report's deficiencies and specify a due date for submittal of a revised Final Risk Management Plan and Summary.

VIII.J.4. Within thirty (30) calendar days after approval of the Risk Management Report and Summary, the Administrative Authority shall initiate modification of the Permit according to LAC 33:V.321.C, for remedy selection, based on the approved Risk Management Report. The resultant modified permit will include schedules for remedy implementation.

VIII.K. DETERMINATION OF NO FURTHER ACTION

VIII.K.1. Based on the results of the site investigations, screening, risk evaluations and risk management activities, the Permittee may submit an application to the Administrative Authority for a Class 3 permit modification under LAC 33:V.321.C.3. to terminate further corrective action for a specific unit. This permit modification application must contain information demonstrating that there are no releases of hazardous constituents from a particular SWMU at the facility that

pose threats to human health and/or the environment, as well as additional information required in LAC 33:V.321.C.3.

The basis for the determination of no further action shall follow the guidelines as described in the RECAP for each AOI, depending on the MO used.

If, based upon review of the Permittee's request for a permit modification, the results of the site investigations, and other information, including comments received during the sixty (60) day public comment period required for Class 3 permit modifications, the Administrative Authority determines that releases or suspected releases which were investigated either are non-existent or do not pose a threat to human health and/or the environment, the Administrative Authority may grant the requested modification.

VIII.K.2. If necessary to protect human health and/or the environment, a determination of no further action shall not preclude the Administrative Authority from requiring continued monitoring of air, soil, groundwater, or surface water, when site-specific circumstances indicate that releases of hazardous waste or hazardous constituents are likely to occur.

VIII.K.3. A determination of no further action shall not preclude the Administrative Authority from requiring further investigations, studies, or remediation at a later date, if new information or subsequent analysis indicates a release or likelihood of a release from a SWMU at the facility that is likely to pose a threat to human health and/or the environment. In such a case, the Administrative Authority shall initiate a modification to the Permit according to LAC 33:V.321.

VIII.L. NOTIFICATION REQUIREMENTS FOR AND ASSESSMENT OF NEWLY-IDENTIFIED SWMUs AND POTENTIAL AOCs

VIII.L.1. The Permittee shall notify the Administrative Authority, in writing, of any newly-identified SWMU(s) and potential AOC(s) (i.e., a unit or area not specifically identified during previous corrective action assessments, RFA, etc.), discovered in the course of ground water monitoring, field investigations, environmental audits, or other means, no later than thirty (30) calendar days after discovery. The Permittee shall also notify the Administrative Authority of any newly-constructed land-based SWMUs (including but not limited to, surface impoundments, waste piles, landfills, land treatment units) and newly-constructed SWMUs where any release of hazardous constituents may be difficult to identify (e.g., underground storage tanks) no later than thirty (30) days after construction. The notification shall include the following items, to the extent available:

VIII.L.1.a. The location of the newly-identified SWMU or potential AOC on the topographic map required under LAC 33:V.517.B. Indicate all existing units (in relation to other SWMUs);

VIII.L.1.b. The type and function of the unit;

VIII.L.1.c. The general dimensions, capacities, and structural description of the unit (supply any available drawings);

VIII.L.1.d. The period during which the unit was operated;

VIII.L.1.e. The specifics, to the extent available, on all wastes that have been or are being managed at the SWMU or potential AOC; and

VIII.L.1.f. Results of any sampling and analysis required for the purpose of determining whether releases of hazardous waste including hazardous constituents have occurred, are occurring, or are likely to occur from the SWMU or whether the AOC should be considered a SWMU.

VIII.L.2. Based on the results of this Notification the Administrative Authority will designate the newly-identified AOC(s). Further, the Administrative Authority will determine the need for further investigations or corrective measures at any newly identified SWMU(s) or AOC(s). If the Administrative Authority determines that such investigations are needed, the Administrative Authority may require the Permittee to prepare a plan for such investigations. The plan for investigation of SWMU(s) or AOC(s) will be reviewed for approval as part of the current CAS Workplan or a new CAS Workplan. Tables 2 of this permit will be modified to incorporate the investigation requirements for the newly-identified SWMUs and potential AOC(s) identified pursuant to Section VIII.L.1.

VIII.M. NOTIFICATION REQUIREMENTS FOR NEWLY-DISCOVERED RELEASES AT SWMU(S) AND AOC(S)

The Permittee shall notify the Administrative Authority in writing, no later than fifteen (15) calendar days after discovery, of any release(s) from a SWMU or AOC of hazardous waste or hazardous constituents discovered during the course of ground water monitoring, field investigation, environmental auditing, or other means. Such newly-discovered releases may be from newly-identified SWMUs or AOCs, newly-constructed SWMUs, or from SWMUs or AOCs for which, based on the findings of the, CSM, completed RER, or investigation of an AOC(s), the Administrative Authority had previously determined no further investigation was necessary. The notification shall include information concerning actual and/or potential

impacts beyond the facility boundary and on human health and the environment, if available at the time of the notification. The Administrative Authority may require further investigation and/or interim measures for the newly-identified release(s), and may require the Permittee to prepare a plan for the investigation and/or interim measure. The plan will be reviewed for approval as part of the CAS Work Plan or a new CAS Work Plan. The Permit will be modified according to LAC 33:V.321 to incorporate the investigation, if required.

APPENDIX 1

SUMMARY OF CORRECTIVE ACTION ACTIVITIES

Areas of concern (AOC) for corrective action at the US NASA/Lockheed Martin Michoud Facility are divided into three groups. Group 1 areas consisted of AOCs C, I, K, L, M, and N. These areas were product and waste storage areas. The Group 1 AOCs were considered to be the easiest units to investigate. The units are not located in the same area spatially. After an assessment and investigation, the Group 1 AOCs were given a NFAATT (No Further Action At This Time) approval on May 10, 2000.

Group 2 AOCs consisted of AOC H, A and J. AOCs A and J received an NFAATT approval on May 10, 2000. Although AOC H (borrow canal for the stormwater system) had met department approved clean up level, monitoring continues at AOC H in the case of any potential future releases at that location. Further investigative action at this AOC is possible.

Group 3 AOCs consisted of AOC D (an interim status RCRA surface impoundment), AOC B (Tank Farm Bldg 130) and AOC E (Bldg. 103 general area). The general area of AOC E contains AOC G (Chrysler Clean Line) and AOC F (ET Clean Line). AOC D is under assessment. AOC D was also concurrently managed as a RCRA Rinsewater Impoundment that is currently in delay of closure. AOC D is subdivided into subparts based on source of contamination. Different remediation projects (pilot projects) are currently active at AOC B. A study will determine the final remedy to be implemented in this area. AOCs E, F, and G are under investigation.

Table 1: Corrective Action Strategy Notification and Reporting Requirements

Below is a summary of the major notification and reports that must be submitted by the Permittee to the Administrative Authority under the Corrective Action Strategy of this Permit in the event of releases requiring RCRA corrective action.

<u>Actions</u>	<u>Due Date</u>
Submit Notification of Intent to request use of the CAS to the Administrative Authority for review and comment (Section VIII.B.1)	Within the timeframe specified by the Administrative Authority
CAS Scoping Meeting held between facility and Administrative Authority (Section VIII.B.2)	Within the timeframe specified by the Administrative Authority
Submit Progress Reports on all activities to the Administrative Authority (Section VIII.C.1)	Schedule to be determined by the Administrative Authority on a case by case basis
Make available other reports relating to corrective action to the Administrative Authority (Section VIII.C.2)	Upon request of the Administrative Authority
Provide briefings to the Administrative Authority (Section VIII.C.3)	As necessary
Submit preliminary Conceptual Site Model (CSM) to the Administrative Authority (Section VIII.D)	Within the timeframe specified by the Administrative Authority
Perform Interim Measures (Section VIII.E)	As determined by the Administrative Authority
Submit Corrective Action Strategy (CAS) Workplan to the Administrative Authority (Section VIII.F)	Within 180 calendar days after the CAS Scoping Meeting
Implement site investigation activities under CAS Workplan according to approved schedule (Section VIII.G)	Within fourteen (14) days of receipt of approval by the Administrative Authority
Submit Risk Evaluation Report (RER) and Summary to the Administrative Authority (Section VIII.H)	Within ninety (90) days of completion of the site investigation implementation
Submit Risk Management Plan and Summary to the Administrative Authority (Section VIII.J)	Within sixty (60) days of approval of the Risk Evaluation Report
Submit NFA (and Permit Modification) request to the Administrative Authority (Section VIII.K)	As necessary
Notification of newly-identified SWMUs and potential AOCs (Section VIII.L)	Thirty (30) calendar days after discovery
Notification of newly-discovered releases (Section VIII.M)	Fifteen (15) calendar days after discovery

Table 2: SWMUs/AOC's REQUIRING AN RFI OR SIMILAR FACILITY INVESTIGATION UNDER A CURRENT CORRECTIVE ACTION PROGRAM

Below is a list of units requiring an RFI (or similar investigation) or are being addressed under a current RFI program.

AOC/SWMU	AREA DESCRIPTION
AOCs E/F/G	Facility Investigation
AOC D (excluding SWMU5)	Facility Investigation

Table 3: SUMMARY OF ONGOING/PROPOSED CORRECTIVE ACTION ACTIVITIES

Corrective Action Vehicle	Unit(s) Affected	Stage of Corrective Action Activity	Document Dates	EDMS Document ID#
RCRA/HSWA Permit	AOCs E, F, G, D and AOC D/SWMU 5 (Group 3)	Facility Investigation/RECAP Assessment	4/1/1999	7082187
RCRA/HSWA Permit	AOC H (Borrow Canal—drainage ditch)	No Further Action Petition Denied; Unit Actively Monitored	5/10/2000	9217921
RCRA/HSWA Permit	AOC B (Group 3)	Pilot Project/Remedy Study	4/1/1999	7082187

Table 4: AOC/SWMUs THAT RECEIVED NO FURTHER ACTION REQUIRED AT THIS TIME (NFAATT) APPROVALS

SWMU/AOC Number	SWMU Names	Approval Date	EDMS Document Number
AOC A	Chromate Sludge Landfill Area	5/10/2000	9217921
AOC J	Inactive Landfills	"	"
AOC C	Cell P Tank Farm Area	5/10/2000	9217921
AOC I	Bldg 221 Hazardous Material Storage Area	"	"
AOC K	Bldg 450 Pumping Station Area	"	"
AOC L	Bldg 175 Compressed Gas Storage Area	"	"
AOC M	Bldg 204/216 Diesel Fuel Storage Area	"	"
AOC N	Bldg 205/209 Diesel Fuel/Acid Storage Area	"	"

Table 5: AOC/SWMU DESIGNATIONS AND THE RESPECTIVE AREA DESCRIPTION

AOC/SWMU	AREA DESCRIPTION
Group 1 AOCs	
AOC C	Cell P Tank Farm Area
AOC I	Bldg 221 Hazardous Materials Storage Area
AOC K	Bldg 450 Pumping Station Area
AOC L	Bldg 175 Compressed Gas Storage Area
AOC M	Bldg 204/216 Diesel Fuel Storage Area
AOC N	Bldg 205/209 Diesel Fuel/Acid Storage Area
Group 2 AOCs	
AOC A	Chromate Sludge Landfill Area
AOC J	Inactive Landfills
AOC H	Borrow Canal
Group 3 AOCs	
AOC D	Rinsewater Impoundment
AOC D/SWMU 5	Rinsewater Impoundment
AOC B	Bldg 190, Tank Farm Bldg 130
AOC E	Bldg 103, General Area
AOC F	Bldg 103, ET Clean Line
AOC G	Bldg 103, Chrysler Clean Line

ATTACHMENT 1

ATTACHMENT 1
LIST OF FACILITY DOCUMENTS INCORPORATED
IN THE PERMIT BY REFERENCE

LAD081999724

AJ#3165

DOCUMENT TYPE	APPLICATION /DOCUMENT DATE	ELECTRONIC DATABASE MANAGEMENT SYSTEM (EDMS) DOCUMENT ID	COMMENTS
Arrangement with local authorities	6/5/1997	7050778	Vol II, Appendix C, Attachment C-1; Page 102 of the EDMS Document
Closure Plans	6/5/1997	7050778	Vol II, Appendix F, Page 154 of the EDMS Document. A revised closure plan for the tanks is to be submitted by the permittee pursuant to the Schedule of Compliance and, upon review and approval by the administrative authority, included hererin by reference.
Contingency Plan	6/5/1997	7050778	Vol II, Appendix C; Page 78 of the EDMS Document
Inspection Schedule	6/5/1997	7050778	Vol II, Appendix B; Page 44 of the EDMS Document A revised inspection schedule is to be submitted by the permittee pursuant to the Schedule of Compliance and, upon review and approval by the administrative authority, included hererin by reference.
Security Plan	6/5/1997	31653334	Vol I, Part II, Page 87-89 of the EDMS Document
Personnel Training Plan	6/5/1997	7050778	Vol II, Appendix D; Page 109 of the EDMS Document
Waste Analysis Plan	6/5/1997	7050778	Vol II, Appendix A; Page 7 of the EDMS Document