LPDES PERMIT NO. LA0000418 and AGENCY INTEREST NO. 2416

LPDES FACT SHEET and RATIONALE
FOR THE DRAFT LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (LPDES) PERMIT TO DISCHARGE TO WATERS OF LOUISIANA

I.	**Company/Facility Name:**	CF Industries, Inc. Donaldsonville Nitrogen Complex Post Office Box 468 Donaldsonville, Louisiana 70346
II.	**Issuing Office:**	Louisiana Department of Environmental Quality (LDEQ) Office of Environmental Services Water and Waste Permits Division Post Office Box 4313 Baton Rouge, Louisiana 70821-4313
III.	**Prepared By:**	Melanie Beard Connor Industrial Water Permits Section Water and Waste Permits Division Phone #: (225) 219-3088 Fax #: (225) 219-3309 E-mail: melanie.connor@la.gov
	Date Prepared:	February 21, 2006

IV. Permit Action/Status:

A. Reason For Permit Action:

Proposed reissuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term following regulations promulgated at LAC 33:IX.2711/40 CFR 122.46*.

* In order to ease the transition from NPDES to LPDES permits, dual regulatory references are provided where applicable. The LAC references are the legal references while the 40 CFR references are presented for informational purposes only. In most cases, LAC language is based on and is identical to the 40 CFR language. 40 CFR Parts 401, and 405-471 have been adopted by reference at LAC 33:IX.4903 and will not have dual references. In addition, state standards (LAC 33:IX. Chapter 11) will not have dual references.

LAC 33:IX Citations: Unless otherwise stated, citations to LAC 33:IX refer to promulgated regulations listed at Louisiana Administrative Code, Title 33, Part IX.

40 CFR Citations: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations in accordance with the dates specified at LAC 33:IX.4901, 4903, and 2301.F.

B. LPDES permit - Permit effective date: February 1, 2001
Permit expiration date: January 31, 2006
EPA has not retained enforcement authority.

C. Application received date - August 4, 2005

V. Facility Information:

A. Location - 39018 Highway 3089, Donaldsonville, Ascension Parish, located at River Mile 173 MAHP

B. Applicant Activity - CF Industries, Inc., Donaldsonville Nitrogen Complex, is a nitrogenous fertilizer manufacturing facility and manufactures anhydrous ammonia, granular urea, UAN-32, ammonium nitrate, and nitric acid (to produce ammonium nitrate). Products are shipped by rail, barge, ship, truck and anhydrous ammonia pipeline.

C. Technology Basis - (40 CFR Chapter 1, Subchapter N/Parts 401-402, and 404-471 have been adopted by reference at LAC 33:IX.4903)

Guideline	Reference
Fertilizer Manufacturing:	
Ammonia Subcatagory	40 CFR 418.B
Urea Subcatagory	40 CFR 418.C
Ammonium Nitrate Subcatagory	40 CFR 418.D
Nitric Acid Subcatagory	40 CFR 418.E

Other sources of technology based limits:
-- LAC 33:IX.711 or 709.B (secondary treatment standards)
-- LDEQ Sanitary General Permits
-- Best Professional Judgement
-- LDEQ Stormwater Guidance, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6)

D. Fee Rate -
1. Fee Rating Facility Type: Major
2. Complexity Type: VI
3. Wastewater Type: II
4. SIC code: 2873
5. Total Toxic Annual Discharge - 1,001,000 lbs (from 2004 TRI list)

E. Continuous Facility Effluent Flow (Max 30-Day) - 5.66 MGD

F. Water treatment chemicals - Incoming river water is clarified, softened, and filtered. The solids which are removed from the river water enter the effluent system with clarifier blowdown and sand filter backwash. The chemicals used to clarify the river water are polyelectrolyte (anionic and cationic), coagulant (sodium aluminate) and lime.

Boiler water treatment chemicals consist of a phosphate formulation to control pH, an amine to inhibit corrosion, and an oxygen scavenger to eliminate oxygen.

Cooling water treatment chemicals consist of a stabilized phosphate corrosion inhibitor, a dispersant, a surfactant, a non-oxidizing biocide, an oxidizing biocide (either chlorine or a chlorine/bromine system is used), and pH control with sulfuric acid.

G. Facility Production - CF Industries currently has the following production units onsite (production values are from the August 4, 2005 LPDES renewal application)

Unit	*Production*
Ammonia Units 1, 2, 3 & 4	6598 tons/day
Urea Units 1, # 1 expansion, 2, & 4	5395.89 tons/day (granular)
Urea Units 3 & 4	2180.11 tons/day (solution)
UAN Units 1 & 2	6992 tons/day
Nitric Acid Units 1, 2 & 3	2476 tons/day

VI. Receiving Waters:

A. Mississippi River (Outfall 001, 401, 501, and 002)

1. TSS (15%), mg/L: 32.0
2. Average Hardness, mg/L $CaCO_3$: 153.4
3. Critical Flow, cfs: 141,955
4. Mixing Zone Fraction: 1/3
5. Harmonic Mean Flow, cfs: 366,748
6. River Basin: Mississippi River, Segment No. 070301
7. Designated Uses:
   The designated uses are primary contact recreation, secondary contact recreation, fish and wildlife propagation, and drinking water supply.

Information based on the following: Water Quality Management Plan, Volume 5A, 1994; LAC 33:IX Chapter 11;/Recommendation(s) from the Engineering Section. Hardness and 15% TSS data come from monitoring station #0319 Mississippi River east of Plaquemine listed in Hardness and TSS Data for All LDEQ Ambient Stations for the Period of Record as of March 1998, LeBlanc. Harmonic Mean and 7Q10 are based on the Corps of Engineers station Mississippi River at Tarbert Landing, the index station for flows in the lower River.

B. Local drainage thence to Bayou Verret (Outfall 003)

1. River Basin: Barataria, Segment No. 020101
2. Designated Uses:
   Primary contact recreation, secondary contact recreation, fish and wildlife propagation, and agriculture

VII. Outfall Information:

Outfall 001

A. Type of wastewater - The continuous discharge of combined wastewaters and industrial stormwater including process wastewaters from the ammonia, urea, UAN, nitric acid and ammonium nitrate manufacuturing units; sand filter backwash; demineralizer backwash and regeneration wastewaters; boiler blowdown; neutralized equipment cleaning solution; cooling tower blowdown; potable water; laboratory wastewater; process area stormwater runoff; non-process area stormwater runoff; miscellaneous wastewaters (hydrostatic test water, facility wash waters, steam condensate, firefighting test water, and safety shower and eyewash station water); previously treated and monitored sanitary wastewater from Internal Outfall 501 and/or Internal Outfall 401; and clarifier underflow from Internal Outfall 002.

B. Location - At the point of discharge from the Outfall 001 sampling point prior to discharge into the Mississippi River (Latitude 30°06'00", Longitude 90°57'31")

C. Treatment -
End of pipe treatment
1. pH control, performed at the south pond for existing plant, at the west pond for new construction, and near Ammonia plants 1 & 2
2. biological treatment of sanitary wastes)
3. temperature control
4. oil/water separator, underflow weirs and oil collection systems
5. solids separator (for railcar wash area)

In-process treatment:
1. Ammonia units: Contaminate removal from process condensate is accomplished by steam stripping. Treated condensate is recycled.
2. Urea units: In Units 1 and 2, contaminate removal from process condensate is accomplished by steam stripping and waste minimization. In all four units, other wastewater from the process is recycled to the process through a "nitrogen sewer." In addition to steam stripping, unit #4 includes a urea hydrolizer.
3. Urea Ammonium Nitrate Plants - UAN Plant 1 uses a scrubber and a condenser system. Scrubber liquor and condensate are recycled. The neutralizer overheads are condensed and recycled in UAN Plant No.2.

Process wastewater, utility waters, and stormwater runoff from process areas are collected at one of three pumping stations: Complex I Effluent Sump, Complex II Effluent Sump (referred to as the South Pond Sump), and the Urea 4 Effluent Sump (the West Pond Sump) and is pumped to the Mississippi River. Chemicals are added to the pump sump to adjust the pH. The effluent normally does not require temperature control, however automatic systems cause the effluent to be recycled until its temperature is within the permitted limits.

D. Flow - (continuous, Max 30-Day) 5.66 MGD

E. Receiving waters - Mississippi River

F. Basin and segment - Mississippi River Basin, Segment 070301

G. Effluent Data - See Appendix D

Outfall 401

A. Type of wastewater - Treated sanitary wastewater

B. Location - At the point of discharge from sanitary treatment system prior to combining with the waters of Outfall 001 (Latitude 30°05'27", Longitude 90°57'31")

C. Treatment - Activated sludge

D. Flow - Treatment facility currently not in service. Will be used as a backup to the Outfall 501 treatment facility.

E. Receiving waters - Mississippi River (via final Outfall 001)

F. Basin and segment - Mississippi River Basin, Segment 070301

G. Effluent Data - No effluent data was submitted because the treatment facility is not currently discharging.

Outfall 501

A. Type of wastewater - Treated sanitary wastewater

B. Location - At the point of discharge from sanitary treatment system prior to combining with the waters of Outfall 001 (Latitude 30°05'27", Longitude 90°57'29")

C. Treatment - Activated sludge

D. Flow - (intermittent) 0.009 MGD

E. Receiving waters - Mississippi River (via Final Outfall 001)

F. Basin and segment - Mississippi River Basin, Segment 070301

G. Effluent Data - See Appendix D

Outfall 002

A. Type of wastewater - Clarifier blowdown

B. Location - At the point of discharge prior to combining with other waters (Latitude 30°05'53", Longitude 90°57'28")

C. Treatment - none

D. Flow - (continuous) 0.143 MGD

E. Receiving waters - Mississippi River (via Final Outfall 001)

F. Basin and segment - Mississippi River Basin, Segment 070301

Outfall 003

A. Type of wastewater - Post first flush process and non-process area stormwater runoff

B. Location - at the point of discharge from the drainage area located south of the West Pond, near the main guard house prior to combining other waters (Latitude 30°05'14", Longitude 90°57'29")

C. Treatment - None

D. Flow - intermittent and variable

E. Receiving waters - Local drainage thence to Bayou Verret

F. Basin and segment - Barataria Basin, Segment 020101

G. Effluent Data - Effluent data was not reported. This outfall is proposed.

VIII. Proposed Permit Limits and Rationale:

The following section sets forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. Also set forth are any calculations or other explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guideline or performance standard provisions as required under LAC 33:IX.2361/40 CFR Part 122.44 and reasons why they are applicable or an explanation of how the alternate effluent limitations were developed.

A. SUMMARY OF PROPOSED CHANGES FROM THE CURRENT LPDES PERMIT

1. Outfall 001 - The effluent limitation for Fecal Coliform have been removed since all sanitary outfalls are now covered internally via Internal Outfalls 401 and 501.

2. Outfall 003 - This outfall has been added to the permit.

3. Outfalls 101, 201, 301 - These outfalls have been removed from the permit because after the facility's sewage treatment facility centralization project, only two of the five proposed outfalls had been created.

4. Outfall 001 - The effluent limitations for Ammonia, Organic Nitrogen, and Nitrate have increased due to increases in production.

5. Outfall 001 - The monitoring frequencies for ammonia, organic nitrogen, and nitrate have been reduced to 1/week. These reductions are based upon the April 1996, Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies.

6. Part II - Stormwater Pollution Prevention Plan (SWP3) requirements have been added to the permit in accordance with current office practices.

B. TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Following regulations promulgated at LAC 33:IX.2361.L.2.b/40 CFR Part 122.44(l)(2)(ii), the draft permit limits are based on either technology-based effluent limits pursuant to LAC 33:IX.2361.A/40 CFR Part 122.44(a) or on State water quality standards and requirements pursuant to LAC 33:IX.2361.D/40 CFR Part 122.44(d), whichever are more stringent.

C. TECHNOLOGY-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Regulations promulgated at LAC 33:IX.2361.A/40 CFR Part 122.44(a) require technology-based effluent limitations to be placed in LPDES permits based on effluent limitations guidelines where applicable, on BPJ (best professional judgement) in the absence of guidelines, or on a combination of the two. The following is a rationale for types of wastewaters. See outfall information descriptions for associated outfall(s) in Section VII.

CF Industries, Inc., Donaldsonville Nitrogen Complex is subject to the effluent limitation guidelines listed below:

Manufacturing Operation	Guideline
Fertilizer Manufacturing:	
Ammonia Subcategory	40 CFR 418 Subpart B
Urea Subcategory	40 CFR 418 Subpart C
Ammonium Nitrate Subcategory	40 CFR 418 Subpart D
Nitric Acid Subcategory	40 CFR 418 Subpart E

<u>Outfall 001</u> - The continuous discharge of combined wastewaters and industrial stormwater including process wastewaters from the ammonia, urea, UAN, nitric acid and ammonium nitrate manufacuturing units; sand filter backwash; demineralizer backwash and regeneration wastewaters; boiler blowdown; neutralized equipment cleaning solution; cooling tower blowdown; potable water; laboratory wastewater; process area stormwater runoff; non-process area stormwater runoff; miscellaneous wastewaters (hydrostatic test water, facility wash waters, steam condensate, firefighting test water, and safety shower and eyewash station water); previously treated and monitored sanitary wastewater from Internal Outfalls 501 and 401; and clarifier underflow from Internal Outfall 002.

Parameter	Effluent Limitations		Monitoring Freq.	Reference
	Monthly Avg	*Daily Max*		
Flow	Report	Report	Continuous	LAC 33:IX.2707.I.1.b
Temperature	105 °F	115 °F	Continuous	Previous permit
Ammonia (as N)	5,670 lbs/day	11,543 lbs/day	1/week	40 CFR 418 (*1)
Organic Nitrogen (as N)	5,505 lbs/day	10,363 lbs/day	1/week	40 CFR 418 (*1)
Nitrate (as N)	1,793 lbs/day	4,796 lbs/day	1/week	40 CFR 418 (*1)
pH	Continuous(*2)	Continuous(*2)	Continuous	Previous permit
Biomonitoring	---	---	1/year	See Section VIII.E below

(*1) In accordance with the current LPDES permit (effective February 1, 2001), Best Available Technology Economically Achievable (BAT) limits and New Source Performance Standard (NSPS) limits have been applied when calculating mass loadings for each unit at the facility. See Appendix C for a breakdown of each individual unit's mass limit calculations and production rates.

Effluent guidelines specifically exclude pollutant sources attributable to shipping losses and cooling tower blowdown. Therefore, allocations for ammonia (as N), nitrate (as N), and organic nitrogen from these sources were based on best professional judgement and the previous LPDES permit. Additionally, as per the previous LPDES permit, BPJ allocations for hydrolysis of urea, and bionitrification in ditches have been added to the mass loadings.

(*2) Where a permittee continuously measures the pH of wastewater as a requirement, the permittee shall maintain the pH of such wastewater within the range set forth in the permit, except that excursions from the range are permitted, provided:

a) The total time during which the pH values are outside the required range of pH values shall not exceed 446 minutes in any calendar month; and

b) No individual excursion from the range of pH values shall exceed 60 minutes.

Outfall 401 - Treated sanitary wastewater

Outfall 501 - Treated sanitary wastewater

Parameter	Effluent Limitations		Monitoring Freq.	Reference(*1)
	Monthly Avg	*Weekly Avg*		
Flow	Report	Report	1/3 months	LAC 33:IX.2707.I.1.b
TSS	30 mg/l	45 mg/l	1/3 months	Previous permit and LAG540000
$CBOD_5$	25 mg/l	40 mg/l	1/3 months	Previous permit and LAC 33:IX.711
Fecal Coliform	200 col./100ml	400 col./100ml	1/3 months	Previous permit and LAG540000

(*1) Sanitary wastewaters are regulated in accordance with LAC 33:IX.711 or 709.B, by BPJ utilizing the sanitary general permits issued by this Office, and the Louisiana Water Quality Management Plan, Volume 8, Appendices A (Areawide Sanitary Effluent Limits Policy) and B (Statewide Sanitary Effluent Limits Policy), as applicable. The use of $CBOD_5$ as opposed to BOD_5 is attributed to the large quantity of ammonia produced at the facility. It is believed that the presence of this product at the facility may interfere with BOD_5 analyses. Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD_5 and TSS in terms of concentration.

Outfall 002 - The continuous discharge of clarifier blowdown

Parameter	Effluent Limitations		Monitoring Freq.	Reference
	Monthly Avg	*Daily Max*		
Flow	Report	Report	1/week	LAC 33:IX.2707.I.1.b
Coagulants (*1)	---	---	---	Previous permit

(*1) The quantity and types of all coagulants (clarifying agents) used in the raw river water treatment clarification system during the sampling month shall be recorded. Records of the quantity and type of coagulants used shall be retained for three (3) years following Part III.C.3. No DMR reporting shall be required.

Outfall 003 - Post first flush process and non-process area stormwater runoff

Parameter	Effluent Limitations		Monitoring Freq.	Reference
	Monthly Avg	*Daily Max*		
Flow	Report	Report	1/discharge	LAC 33:IX.2707.I.1.b
TOC	—	50 mg/l	1/discharge	LDEQ stormwater guidance (*1)
Oil & Grease	—	15 mg/l	1/discharge	LDEQ stormwater guidance (*1)
pH	6.0 s.u. (Min)	9.0 s.u. (Max)	1/discharge	LDEQ stormwater guidance (*1)

(*1) LDEQ Stormwater Guidance, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6)

D. WATER QUALITY-BASED EFFLUENT LIMITATIONS

Technology-based effluent limitations were screened against state water quality numerical standard based limits by following guidance procedures established in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, September 27, 2001. Calculations, results, and documentation are given in Appendix B.

In accordance with 40 CFR 122.44(d)(1)/LAC 33:IX.2707.D.1 the existing (or potential) discharge(s) was evaluated in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, September 27, 2001, to determine whether pollutants would be discharged "at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any water quality standard." Calculations, results, and documentation are given in Appendix C.

The following pollutants received water quality based effluent limits:

None

Minimum quantification levels (MQL's) for state water quality numerical standards-based effluent limitations are set at the values listed in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, September 27, 2001. They are also listed in Part II of the permit.

To further ensure compliance with 40 CFR 122.44(d)(1), whole effluent toxicity testing has been established for Outfall 001 (See Section VIII.E below).

E. BIOMONITORING REQUIREMENTS

It has been determined that there may be pollutants present in the effluent which may have the potential to cause toxic conditions in the receiving stream. The State of Louisiana has established a narrative criteria which states, "toxic substances shall not be present in quantities that alone or in combination will be toxic to plant or animal life." The Office of Environmental Services requires the use of the most recent EPA biomonitoring protocols.

Whole effluent biomonitoring is the most direct measure of potential toxicity which incorporates both the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. The biomonitoring procedures stipulated as a condition of this permit for Outfall 001 are as follows:

TOXICITY TESTS	FREQUENCY*
NOEC, Pass/Fail [0/1], Lethality, Static Renewal, 48-Hour Acute, Pimephales promelas	1/year
NOEC, Value [%], Lethality, Static Renewal, 48-Hour Acute, Pimephales promelas	1/year
NOEC, Value [%] Coefficient of Variation, Static Renewal 48-Hour Acute, Pimephales promelas	1/year
NOEC, Pass/Fail [0/1], Lethality, Static Renewal 48-Hour Acute, Daphnia pulex	1/year
NOEC, Value [%], Lethality, Static Renewal 48-Hour Acute Daphnia pulex	1/year
NOEC, Value [%] Coefficient of Variation, Static Renewal 48-Hour Acute, Daphnia pulex	1/year

* The permittee must collect the 24-hour composite samples such that the effluent samples are representative of any periodic episode of chlorination, biocide usage or other

potentially toxic substance discharged on an intermittent basis. However, if no biofouling agent or chlorine is used during the monitoring period, the permittee must still conduct the required annual testing.

Toxicity tests shall be performed in accordance with protocols described in the latest revision of the "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms." The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge in accordance with regulations promulgated at LAC 33:IX.2715/40 CFR Part 122.48.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen, conductivity, and alkalinity shall be documented in a full report according to the test method publication mentioned in the previous paragraph. The permittee shall submit a copy of the first full report to this Office. The full report and subsequent reports are to be retained for three (3) years following the provisions of Part III.C.3 of this permit. The permit requires the submission of certain toxicity testing information as an attachment to the Discharge Monitoring Report.

This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.3105/40 CFR 124.5. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

Dilution Series

The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. The additional effluent concentrations shall be 0.08%, 0.10%, 0.14%, 0.19%, and 0.25% effluent. The low-flow effluent concentration (critical dilution) is defined as 0.19% effluent.

F. CONSIDERATION OF MONITORING FREQUENCY REDUCTIONS

The monitoring frequencies for ammonia, organic nitrogen, and nitrate (Outfall 001) have been reduced based upon the April, 1996, Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies. The guidance was prepared in response to the President's Regulatory Reinvention Initiative to reduce the reporting and monitoring burden on the regulated community. These monitoring frequency reductions have been established in the draft permit because the permittee has demonstrated an ability to consistently reduce pollutants in the discharge below the levels necessary to meet existing permit requirements.for the respective outfalls. Two years of data was reviewed and the composite average of this data was compared to the permit limit to determine the potential monitoring frequency reduction.

IX. Compliance History

A. Compliance History: During the life of the current LPDES permit, the facility reported numerous unauthorized discharges to Bayou Verret. However, no enforcement actions have been issued against the facility. In the renewal LPDES application, CF Industries has requested the addition of a stormwater outfall to prevent future unauthorized discharges.

B. DMR Review: DMRs were reviewed for the period January 2003 - January 1, 2006. The following excursions were reported:

Date	Parameter	Outfall	Reported Value	Permit Limits
3/31/03	Ammonia	001	12082 lbs/day (max)	10740 lbs/day (Max)
1/31/06	pH	001	Exceeded for 75 Minutes	Must not exceed range for more than 60 minutes

X. Endangered Species

The receiving waterbody, Subsegment 070301 of the Mississippi River Basin has been identified by the U.S. Fish and Wildlife Service (FWS) as habitat for the Pallid Sturgeon, which is listed as a threatened or endangered species. This draft permit has been submitted to the FWS for review in accordance with a letter dated October 21, 2005 from Watson (FWS) to Gautreaux (LDEQ). As set forth in the Memorandum of Understanding between the LDEQ and the FWS, and after consultation with FWS, LDEQ has determined that the issuance of the LPDES permit is not likely to have an adverse effect upon the Pallid Sturgeon. Effluent limitations are established in the permit to ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. The more stringent of technology and water quality based limits (as applicable) have been applied to ensure maximum protection of the receiving water.

XI. Historic Sites

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

XII. Tentative Determination

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in the application.

XIII. Variances

No requests for variances have been received by this Office.

XIV. Public Notices

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the fact sheet. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

A public notice will be published in a local newspaper of general circulation and in the Office of Environmental Services Public Notice Mailing List.

XV. TMDL Waterbodies:

CF Industries discharges process wastewaters, utility wastewaters and stormwater to the Mississippi River (Segment 070301). Segment 070301 is not listed on LDEQ's Final 2004 303(d) List, as impaired, and to date no TMDL's have been established. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by any future TMDL's.

CF Industries periodically discharges stormwater runoff (Outfall 003) to Bayou Verret (Segment 020101). Segment 020101 is listed on LDEQ's Final 2004 303(d) List, as impaired for organic enrichment/low DO, Nutrients, and Phosphorus. To date, no TMDLs have been completed for this waterbody. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by any future TMDL's. Until completion of TMDLs for the Barataria Basin, those suspected causes for impairment which are not directly attributed to the fertilizer point source category have been eliminated in the formulation of permit limits and other requirements for this permit. Additionally, impaired pollutants which were not determined to be discharged at a level which would cause, have the reasonable potential to cause or contribute to an excursion above any state water quality standard were also eliminated.

The Bayou Verret, Bayou Chevreuil, Bayou Citamon, and Grand Bayou TMDL for Biochemical Oxygen-Demanding Substances was finalized on July 30, 2004. CF Industries was not included in the model for this TMDL because Outfall 003 has never been previously permitted. The stormwater from this area is normally routed to the Mississippi River; however, Outfall 003 is being added to the permit only to be used during periods of extreme rainfall which cause overflow of the drainage area. No TMDL allocations have been included in the permit due to the intermittent nature of the discharge and due to the fact that the discharge only occurs during periods of extreme rainfall. These conditions do not represent the critical conditions which are presented in the TMDL.

XVI. Storm Water Pollution Prevention Plan (SWP3) Requirements:

In accordance with LAC 33:IX.2707.I.3 and 4 [40 CFR 122.44(I)(3) and (4), a Part II condition is proposed for applicability to all stormwater discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheet flow. The Part II condition requires a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit, along with other requirements. If the permittee maintains other plans that contain duplicative information, that plan could be incorporated by reference into the SWP3. Examples of these types plans include, but are not limited to: Spill Prevention Control and Countermeasure Plans (SPCC), Best

Management Plans (BMP), Resource Plans, etc. The conditions will be found in the draft permit. Including Best Management Practice (BMP) controls in the form of a SWP3 is consistent with other LPDES and EPA permits regulating similar discharges of storm water associated with industrial activity, as defined at LAC 33:IX.2511.B.14 [40 CFR 122.26(b)(14)].

Appendix A

Biomonitoring Recommendation

BIOMONITORING FREQUENCY RECOMMENDATION AND RATIONALE FOR ADDITIONAL REQUIREMENTS

Permit Number: **LA0000418**
Facility Name: **CF Industries, Inc. – Donaldsonville Nitrogen Complex**
Previous Critical Dilution: **0.20%** Proposed Critical Dilution: **0.19% (10:1 ACR)**
Date of Review: **02/20/06** Name of Reviewer: **Kim Gunderson**

Recommended Frequency by Species:

***Pimephales promelas* (Fathead minnow): Once/Year[1]**
***Daphnia pulex* (water flea): Once/Year[1]**

Recommended Dilution Series: **0.08%, 0.10%, 0.14%, 0.19%, and 0.25%**

Number of Tests Performed during previous 5 years by Species:

***Pimephales promelas* (Fathead minnow): 7**
***Daphnia pulex* (water flea): 7**
***Daphnia magna* (water flea): N/A – Testing of species was not required**
***Ceriodaphnia dubia* (water flea): N/A – Testing of species was not required**

Number of Failed Tests during previous 5 years by Species:

***Pimephales promelas* (Fathead minnow): No failures on file during the last 5 years**
***Daphnia pulex* (water flea): No failures on file during the last 5 years**
***Daphnia magna* (water flea): N/A – Testing of species was not required**
***Ceriodaphnia dubia* (water flea): N/A – Testing of species was not required**

Failed Test Dates during previous 5 years by Species:

***Pimephales promelas* (Fathead minnow): No failures on file during the last 5 years**
***Daphnia pulex* (water flea): No failures on file during the last 5 years**
***Daphnia magna* (water flea): N/A – Testing of species was not required**
***Ceriodaphnia dubia* (water flea): N/A – Testing of species was not required**

Previous TRE Activities: **N/A – No previous TRE Activities**

Additional Requirements (including WET Limits) Rationale / Comments Concerning Permitting:

CF Industries, Inc. – Donaldsonville Nitrogen Complex owns and operates a nitrogenous fertilizer manufacturing facility in Donaldsonville, Ascension Parish, Louisiana. LPDES Permit LA0000418, effective February 1, 2001, contained freshwater

[1] An acute critical dilution of less than 1% shall have an established monitoring frequency of once per year.

acute biomonitoring as an effluent characteristic of Outfall 001 for *Daphnia pulex* and *Pimephales promelas*. The effluent series consisted of 0.09%, 0.11%, 0.15%, 0.20%, and 0.27% concentrations, with the 0.20% effluent concentration being defined as the critical dilution. The testing was to be performed quarterly for the first year and then yearly if there were no lethal effects for *Daphnia pulex* and *Pimephales promelas*. Data on file indicate that the permittee has complied with the biomonitoring requirements contained in LA0000418 with no failures from a toxicity test in the last five years.

Therefore, it is recommended that freshwater acute biomonitoring continue to be an effluent characteristic of Outfall 001 (discharge of 5.66 MGD of the continuous discharge to the Mississippi River of the combined wastewaters and industrial stormwater including process wastewaters from the ammonia, urea, UAN, nitric acid and ammonium nitrate manufacturing units; sand filter backwash; demineralizer backwash and regeneration wastewaters; boiler blowdown; neutralized equipment cleaning solution; cooling tower blowdown; potable water, laboratory wastewater; process area stormwater runoff; non-process area stormwater runoff; miscellaneous wastewaters; previously treated and monitored sanitary wastewater from internal Outfall 501 and/or internal Outfall 401; and supply water treatment clarifier underflow from internal Outfall 002) in LA0000418. The effluent dilution series shall be 0.08%, 0.10%, 0.14%, 0.19%, and 0.25% concentrations, with the 0.19% effluent concentration being defined as the critical dilution (the 10:1 Acute-to-Chronic ratio has been implemented because the critical dilution is less than 5%). Since the proposed critical dilution is less than 1% (10:1 ACR), the biomonitoring frequency shall be once per year for *Daphnia pulex* and *Pimephales promelas*.

Additional monitoring shall be conducted upon the usage of chlorine or any biofouling agent(s).

This recommendation is in accordance with the LDEQ/OES Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, EPA Region 6 Post-Third Round Whole Effluent Toxicity Testing Frequencies (Revised June 30, 2000), and the Best Professional Judgement (BPJ) of the reviewer.

Appendix B

Water Quality Spreadsheet

Developer: Bruce Fielding Time: 03:34 PM

Software: Lotus 4.0 LA0000418/AI 2416

Revision date: 12/13/02

Water Quality Screen for CF Industries, Inc./Donaldsonville Nitrogen Complex

Input variables:

Receiving Water Characteristics:

Receiving Water Name= CF Industries, Inc./Donaldsonville Nitrogen Complex

Critical flow (Qr) cfs= 141,955

Harm. mean/avg tidal cfs= 366748

Drinking Water=1 HHNPCR=2

Marine, 1=y, 0=n

Rec. Water Hardness= 153.4

Rec. Water TSS= 32

Fisch/Specific=1,Stream=0

Diffuser Ratio=

Effluent Characteristics:

Permittee= CF Industries, Inc./Donaldsonville Nitrogen Complex

Permit Number= LA0000418/AI 2416

Facility flow (Qef),MGD= 5.66

Outfall Number = 001

Eff. data, 2=lbs/day 1

MQL, 2=lbs/day 1

Effluent Hardness= N/A

Effluent TSS= N/A

WQBL ind. 0=y, 1=n

Acute/Chr. ratio 0=n, 1=y 1

Aquatic,acute only1=y,0=n

Page Numbering/Labeling

Appendix Appendix B-1

Page Numbers 1=y, 0=n 1

Input Page # 1=y, 0=n 1

Fischer/Site Specific inputs:

Pipe=1,Canal=2,Specific=3

Pipe width, feet

ZID plume dist., feet

MZ plume dist., feet

HHnc plume dist., feet

HHc plume dist., feet

Fischer/site specific dilutions:

F/specific ZID Dilution = ---

F/specific MZ Dilution = ---

F/specific HHnc Dilution= ---

F/specific HHc Dilution= ---

Dilution:

ZID Fs = 0.033333

MZ Fs = 0.333333

Critical Qr (MGD)=91745.52

Harm. Mean (MGD)= 237029.2

ZID Dilution = 0.001847

MZ Dilution = 0.000185

HHnc Dilution= 0.000062

HHc Dilution= 0.000024

ZID Upstream = 540.3152

MZ Upstream = 5403.152

MZhhnc Upstream= 16209.46

MZhhc Upstream= 41877.96

ZID Hardness= ---

MZ Hardness= ---

ZID TSS= ---

MZ TSS= ---

Multipliers:

WLAa --> LTAa 0.32

WLAc --> LTAc 0.53

LTA a,c-->WQBL avg 1.31

LTA a,c-->WQBL max 3.11

LTA h --> WQBL max 2.38

WQBL-limit/report 2.13

WLA Fraction 1

WQBL Fraction 1

Conversions:

ug/L-->lbs/day Qef0.047204

ug/L-->lbs/day Qeo 0

ug/L-->lbs/day Qr 1183.905

lbs/day-->ug/L Qeo21.18447

lbs/day-->ug/L Qef21.18447

diss-->tot 1=y0=n 1

Cu diss->tot1=y0=n 1

cfs-->MGD 0.6463

Receiving Stream:

Default Hardness= 25

Default TSS= 10

99 Crit., 1=y, 0=n 1

Toxicity Dilution Series:

Biomonitoring dilution: 0.00185

Dilution Series Factor: 0.75

	Percent Effluent
Dilution No. 1	0.247%
Dilution No. 2	0.1850%
Dilution No. 3	0.1388%
Dilution No. 4	0.1041%
Dilution No. 5	0.0781%

Partition Coefficients; Dissolved-->Total

METALS	FW
Total Arsenic	2.223578
Total Cadmium	3.549121
Chromium III	5.282524
Chromium VI	1
Total Copper	3.56078
Total Lead	6.6
Total Mercury	2.785159
Total Nickel	3.174756
Total Zinc	4.535534

Aquatic Life, Dissolved

Metal Criteria, ug/L

METALS	ACUTE	CHRONIC
Arsenic	339.8	150
Cadmium	50.5572	1.414322
Chromium III	779.0334	252.7104
Chromium VI	15.712	10.582
Copper	27.5752	17.70626
Lead	102.5669	3.996886
Mercury	1.734	0.012
Nickel	2032.775	225.756
Zinc	164.4582	150.1753

Site Specific Multiplier Values:

CV = ---

N = ---

WLAa --> LTAa ---

WLAc --> LTAc ---

LTA a,c-->WQBL avg ---

LTA a,c-->WQBL max ---

LTA h --> WQBL max ---

Appendix B-1
CF Industries, Inc./Donaldsonville Nitrogen Complex
LA0000418/AI 2416

(*1) Toxic Parameters	(*2) Instream Conc. ug/L	(*3) CuEffluent /Tech (Avg) ug/L	(*4) Effluent /Tech (Max) ug/L	(*5) MQL ug/L	(*6) 1=No 95% 0=95 %	(*7) Effluent 95th % estimate Non-Tech ug/L	(*8) Numerical Criteria Acute FW ug/L	(*9) Chronic FW ug/L	(*10) HHNDW ug/L	(*11) HH Carcinogen Indicator "C"
NONCONVENTIONAL										
Total Phenols (4AAP)				5			700	350	50	
3-Chlorophenol				10						
4-Chlorophenol				10			383	192		
2,3-Dichlorophenol				10						
2,5-Dichlorophenol				10						
2,6-Dichlorophenol				10						
3,4-Dichlorophenol				10						
2,4-Dichlorophenocy-acetic acid (2,4-D)				---						
2-(2,4,5-Trichlorophen-oxy) propionic acid (2,4,5-TP, Silvex)				---						
METALS AND CYANIDE										
Total Arsenic				10			755.5719	333.5367		
Total Cadmium		10	10	1	1		179.4336	5.019602		
Chromium III				10			4115.263	1334.949		
Chromium VI				10			15.712	10.582		
Total Copper				10			98.18922	63.04811		
Total Lead		10	10	5	1		676.9417	26.37945		
Total Mercury				0.2			4.829466	0.033422		
Total Nickel				40			6453.566	716.7203		
Total Zinc		20	20	20	1		745.906	681.1252		
Total Cyanide				20			45.9	5.2	12844	
DIOXIN										
2,3,7,8 TCDD; dioxin			1.0E-005						7.2E-007	C
VOLATILE COMPOUNDS										
Benzene				10			2249	1125	12.5	C
Bromoform				10			2930	1465	34.7	C
Bromodichloromethane				10					3.3	C
Carbon Tetrachloride				10			2730	1365	1.2	C
Chloroform				10			2890	1445	70	C
Dibromochloromethane				10					5.08	C
1,2-Dichloroethane				10			11800	5900	6.8	C
1,1-Dichloroethylene				10			1160	580	0.58	C
1,3-Dichloropropylene				10			606	303	162.79	
Ethylbenzene				10			3200	1600	8100	
Methyl Chloride				50			55000	27500		
Methylene Chloride				20			19300	9650	87	C
1,1,2,2-Tetrachloro-ethane				10			932	466	1.8	C

(*1) Toxic Parameters	(*12) WLAa Acute ug/L	(*13) WLAc Chronic ug/L	(*14) WLAh HHNDW ug/L	(*15) LTAa Acute ug/L	(*16) LTAc Chronic ug/L	(*17) LTAh HHNDW ug/L	(*18) Limiting A,C,HH ug/L	(*19) WQBL Avg 001 ug/L	(*20) WQBL Max 001 ug/L	(*21) WQBL Avg 001 lbs/day	(*22) WQBL Max 001 lbs/day	(*23) Need WQBL?
NONCONVENTIONAL												
Total Phenols (4AAP)	378920.6	1891453	810522.8	121254.6	1002470	810522.8	121254.6	158843.5	377101.8	7498.113	17800.86	no
3-Chlorophenol	---	---	---	---	---	---	---	---	---	---	---	no
4-Chlorophenol	207323.7	1037597	---	66343.59	549926.5	---	66343.59	86910.1	206328.6	4102.539	9739.616	no
2,3-Dichlorophenol	---	---	---	---	---	---	---	---	---	---	---	no
2,5-Dichlorophenol	---	---	---	---	---	---	---	---	---	---	---	no
2,6-Dichlorophenol	---	---	---	---	---	---	---	---	---	---	---	no
3,4-Dichlorophenol	---	---	---	---	---	---	---	---	---	---	---	no
2,4-Dichlorophenocy-acetic acid (2,4-D)	---	---	---	---	---	---	---	---	---	---	---	no
2-(2,4,5-Trichlorophen-oxy) propionic acid (2,4,5-TP, Silvex)	---	---	---	---	---	---	---	---	---	---	---	no
METALS AND CYANIDE												
Total Arsenic	409002.5	1802483	---	130880.8	955316	---	130880.8	171453.9	407039.3	8093.376	19214.05	no
Total Cadmium	97130.14	27126.69	---	31081.65	14377.15	---	14377.15	18834.06	44712.92	889.0505	2110.647	no
Chromium III	2227654	7214265	---	712849.3	3823560	---	712849.3	933832.6	2216961	44081.01	104650.3	no
Chromium VI	8505.144	57186.73	---	2721.646	30308.97	---	2721.646	3565.356	8464.319	168.3005	399.5531	no
Total Copper	53151.31	340721.5	---	17008.42	180582.4	---	17008.42	22281.03	52896.19	1051.763	2496.933	no
Total Lead	366438.8	142558.5	---	117260.4	75556.02	---	75556.02	98978.38	234979.2	4672.215	11092.05	no
Total Mercury	2614.263	180.6171	---	836.5643	95.72706	---	95.72706	125.4024	297.7111	5.919547	14.05328	no
Total Nickel	3493413	3873265	---	1117892	2052831	---	1117892	1464439	3476645	69127.96	164112.9	no
Total Zinc	403770.2	3680904	---	129206.5	1950879	---	129206.5	169260.5	401832.1	7989.839	18968.24	no
Total Cyanide	24846.37	28101.59	2.1E+008	7950.837	14893.84	2.1E+008	7950.837	10415.6	24727.1	491.662	1167.228	no
DIOXIN												
2,3,7,8 TCDD; dioxin	---	---	0.030153	---	---	0.030153	0.030153	0.030153	0.071764	0.001423	0.003388	no
VOLATILE COMPOUNDS												
Benzene	1217418	6079671	523487	389573.7	3222225	523487	389573.7	510341.6	1211574	24090.37	57191.63	no
Bromoform	1586053	7917082	1453200	507537.1	4196054	1453200	507537.1	664873.6	1578440	31384.96	74509.33	no
Bromodichloromethane	---	---	138200.6	---	---	138200.6	138200.6	138200.6	328917.3	6523.674	15526.34	no
Carbon Tetrachloride	1477790	7376667	50254.75	472892.9	3909634	50254.75	50254.75	50254.75	119606.3	2372.245	5645.944	no
Chloroform	1564401	7808999	2931527	500608.3	4138770	2931527	500608.3	655796.8	1556892	30956.5	73492.14	no
Dibromochloromethane	---	---	212745.1	---	---	212745.1	212745.1	212745.1	506333.3	10042.5	23901.16	no
1,2-Dichloroethane	6387519	3.2E+007	284776.9	2044006	1.7E+007	284776.9	284776.9	284776.9	677769	13442.72	31993.68	no
1,1-Dichloroethylene	627925.6	3134408	24289.79	200936.2	1661236	24289.79	24289.79	24289.79	57809.71	1146.585	2728.873	no
1,3-Dichloropropylene	328037	1637458	2638900	104971.8	867852.7	2638900	104971.8	137513.1	326462.4	6491.224	15410.46	no
Ethylbenzene	1732209	8646643	1.3E+008	554306.7	4582721	1.3E+008	554306.7	726141.8	1723894	34277.09	81375.38	no
Methyl Chloride	3E+007	1.5E+008	---	9527147	7.9E+007	---	9527147	1.2E+007	3E+007	589137.5	1398639	no
Methylene Chloride	1E+007	5.2E+007	3643469	3343163	2.8E+007	3643469	3343163	4379543	1E+007	206733.7	490795.3	no
1,1,2,2-Tetrachloro-ethane	504505.7	2518335	75382.12	161441.8	1334717	75382.12	75382.12	75382.12	179409.4	3558.368	8468.915	no

(*1) Toxic Parameters	(*2) Instream Conc. ug/L	(*3) CuEffluent /Tech (Avg) ug/L	(*4) Effluent /Tech (Max) ug/L	(*5) MQL ug/L	(*6) Effluent 1=No 95% 0=95 %	(*7) 95th % estimate Non-Tech ug/L	(*8) Numerical Criteria Acute FW ug/L	(*9) Chronic FW ug/L	(*10) HHNDW ug/L	(*11) HH Carcinogen Indicator "C"
VOLATILE COMPOUNDS (cont'd)										
Tetrachloroethylene				10			1290	645	2.5	C
Toluene				10			1270	635	46200	
1,1,1-Trichloroethane				10			5280	2640		
1,1,2-Trichloroethane				10			1800	900	6.9	C
Trichloroethylene				10			3900	1950	21	C
Vinyl Chloride				10					35.8	C
ACID COMPOUNDS										
2-Chlorophenol				10			258	129	126.4	
2,4-Dichlorophenol				10			202	101	232.6	
BASE NEUTRAL COMPOUNDS										
Benzidine				50			250	125	0.00017	C
Hexachlorobenzene				10					0.00025	C
Hexachlorabutadiene				10			5.1	1.02	0.11	C
PESTICIDES										
Aldrin				0.05			3		0.0004	C
Hexachlorocyclohexane (gamma BHC, Lindane)				0.05			5.3	0.21	0.2	C
Chlordane				0.2			2.4	0.0043	0.00019	C
4,4'-DDT				0.1			1.1	0.001	0.00019	C
4,4'-DDE				0.1			52.5	10.5	0.00019	C
4,4'-DDD				0.1			0.03	0.006	0.00027	C
Dieldrin				0.1			0.2374	0.0557	0.00005	C
Endosulfan				0.1			0.22	0.056	0.64	
Endrin				0.1			0.0864	0.0375	0.26	
Heptachlor				0.05			0.52	0.0038	0.00007	C
Toxaphene				5			0.73	0.0002	0.00024	C
Other Parameters:										
Fecal Col.(col/100ml)										
Chlorine							19	11		
Ammonia								4000		
Chlorides										
Sulfates										
TDS										
Goldbook Values:										

(*1) Toxic Parameters	(*12) WLAa Acute	(*13) WLAc Chronic	(*14) WLAh HHNDW	(*15) LTAa Acute	(*16) LTAc Chronic	(*17) LTAh HHNDW	(*18) Limiting A,C,HH	(*19) WQBL Avg 001	(*20) WQBL Max 001	(*21) WQBL Avg 001	(*22) WQBL Max 001	(*23) Need WQBL?
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	lbs/day	lbs/day	
Tetrachloroethylene	698296.6	3485678	104697.4	223454.9	1847409	104697.4	104697.4	104697.4	249179.8	4942.178	11762.38	no
Toluene	687470.3	3431636	7.5E+008	219990.5	1818767	7.5E+008	219990.5	288187.5	684170.4	13603.72	32295.85	no
1,1,1-Trichloroethane	2858144	1.4E+007	---	914606.1	7561489	---	914606.1	1198134	2844425	56557.2	134269.4	no
1,1,2-Trichloroethane	974367.3	4863737	288964.8	311797.5	2577780	288964.8	288964.8	288964.8	687736.2	13640.41	32464.18	no
Trichloroethylene	2111129	1.1E+007	879458.1	675561.3	5585191	879458.1	675561.3	884985.4	2100996	41775.2	99176.24	no
Vinyl Chloride	---	---	1499267	---	---	1499267	1499267	1499267	3568255	70771.98	168437.3	no
ACID COMPOUNDS												
2-Chlorophenol	139659.3	697135.6	2049002	44690.98	369481.9	2049002	44690.98	58545.18	138989	2763.59	6560.89	no
2,4-Dichlorophenol	109345.7	545819.3	3770552	34990.61	289284.2	3770552	34990.61	45837.7	108820.8	2163.741	5136.821	no
BASE NEUTRAL COMPOUNDS												
Benzidine	135328.8	675519	7.119423	43305.21	358025.1	7.119423	7.119423	7.119423	16.94423	0.336068	0.799842	no
Hexachlorobenzene	---	---	10.46974	---	---	10.46974	10.46974	10.46974	24.91798	0.494218	1.176238	no
Hexachlorabutadiene	2760.707	5512.235	4606.685	883.4264	2921.484	4606.685	883.4264	1157.289	2747.456	54.62911	129.692	no
PESTICIDES												
Aldrin	1623.946	---	16.75158	519.6626	---	16.75158	16.75158	16.75158	39.86877	0.790748	1.881981	no
Hexachlorocyclohexane (gamma BHC, Lindane)	2868.97	1134.872	8375.791	918.0705	601.4821	8375.791	601.4821	787.9415	1870.609	37.19431	88.30099	no
Chlordane	1299.156	23.23785	7.957002	415.7301	12.31606	7.957002	7.957002	7.957002	18.93766	0.375605	0.893941	no
4,4'-DDT	595.4467	5.404152	7.957002	190.5429	2.8642	7.957002	2.8642	3.752103	8.907663	0.177116	0.420481	no
4,4'-DDE	28419.05	56743.59	7.957002	9094.095	30074.1	7.957002	7.957002	7.957002	18.93766	0.375605	0.893941	no
4,4'-DDD	16.23946	32.42491	11.30732	5.196626	17.1852	11.30732	5.196626	6.80758	16.16151	0.321348	0.762894	no
Dieldrin	128.5082	301.0113	2.093948	41.12263	159.536	2.093948	2.093948	2.093948	4.983596	0.098844	0.235248	no
Endosulfan	119.0893	302.6325	10374.69	38.10859	160.3952	10374.69	38.10859	49.92225	118.5177	2.35655	5.594557	no
Endrin	46.76963	202.6557	4214.718	14.96628	107.4075	4214.718	14.96628	19.60583	46.54514	0.925481	2.197135	no
Heptachlor	281.4839	20.53578	2.931527	90.07484	10.88396	2.931527	2.931527	2.931527	6.977034	0.138381	0.329347	no
Toxaphene	395.1601	1.08083	10.05095	126.4512	0.57284	10.05095	0.57284	0.750421	1.781533	0.035423	0.084096	no
Other Parameters:												
Fecal Col.(col/100ml)	---	---	---	---	---	---	---	---	---	---	---	no
Chlorine	10284.99	59445.67	---	3291.196	31506.2	---	3291.196	4311.467	10235.62	203.5202	483.1663	no
Ammonia	---	2.2E+007	---	---	1.1E+007	---	1.1E+007	1.5E+007	3.6E+007	708463	1681924	no
Chlorides	---	---	---	---	---	---	---	---	---	---	---	no
Sulfates	---	---	---	---	---	---	---	---	---	---	---	no
TDS	---	---	---	---	---	---	---	---	---	---	---	no
	---	---	---	---	---	---	---	---	---	---	---	no
	---	---	---	---	---	---	---	---	---	---	---	no

APPENDIX B-2
LA0000418 / AI 2416

Documentation and Explanation of Water Quality Screen
and Associated Lotus Spreadsheet

Each reference column is marked by a set of parentheses enclosing a number and asterisk, for example (*1) or (*19). These columns represent inputs, existing data sets, calculation points, and results for determining Water Quality Based Limits for an effluent of concern. The following represents a summary of information used in calculating the water quality screen:

Receiving Water Characteristics:

Receiving Water: Mississippi River
Critical Flow, Qrc (cfs): 141,955
Harmonic Mean Flow, Qrh (cfs): 366,748
Segment No.: 070301
Receiving Stream Hardness (mg/L): 153.4
Receiving Stream TSS (mg/L): 32
MZ Stream Factor, Fs: 1/3
Plume distance, Pf: N/A

Effluent Characteristics:

Company: CF Industries, Inc.
Facility flow, Qe (MGD): 5.66
Effluent Hardness (mg/L): N/A
Effluent TSS (mg/L): N/A
Pipe/canal width, Pw: N/A
Permit Number: LA0000418

Variable Definition:
Qrc, critical flow of receiving stream, cfs
Qrh, harmonic mean flow of the receiving stream, cfs
Pf = Allowable plume distance in feet, specified in LAC 33.IX.1115.D
Pw = Pipe width or canal width in feet
Qe, total facility flow , MGD
Fs, stream factor from LAC.IX.33.11 (1 for harmonic mean flow)
Cu, ambient concentration, ug/L
Cr, numerical criteria from LAC.IX.1113, Table 1
WLA, wasteload allocation
LTA, long term average calculations
WQBL, effluent water quality based limit
ZID, Zone of Initial Dilution in % effluent
MZ, Mixing Zone in % effluent

Formulas used in aquatic life water quality screen (dilution type WLA):

Streams:

$$\text{Dilution Factor} = \frac{Qe}{(Qrc \times 0.6463 \times Fs + Qe)}$$

$$WLA\ a,c,h = \frac{Cr}{\text{Dilution Factor}} - \frac{(Fs \times Qrc \times 0.6463 \times Cu)}{Qe}$$

Static water bodies (in the absence of a site specific dilution):

Discharge from a pipe:

$$\text{Critical Dilution} = \frac{(2.8)\ Pw\ \pi^{1/2}}{Pf}$$

$$WLA = \frac{(Cr-Cu)\ Pf}{(2.8)\ Pw\ \pi^{1/2}}$$

Discharge from a canal:

$$\text{Critical Dilution} = \frac{(2.38)\ (Pw^{1/2})}{(Pf)^{1/2}}$$

$$WLA = \frac{(Cr-Cu)\ Pf^{1/2}}{2.38\ Pw^{1/2}}$$

Formulas used in human health water quality screen, human health non-carcinogens (dilution type WLA):

Streams:

$$\text{Dilution Factor} = \frac{Qe}{(Qrc \times 0.6463 + Qe)}$$

$$WLA\ a,c,h = \frac{Cr}{\text{Dilution Factor}} - \frac{(Qrc \times 0.6463 \times Cu)}{Qe}$$

Formulas used in human health water quality screen, human health carcinogens (dilution type WLA):

$$\text{Dilution Factor} = \frac{Qe}{(Qrh \times 0.6463 + Qe)}$$

$$WLA\ a,c,h = \frac{Cr}{\text{Dilution Factor}} - \frac{(Qrh \times 0.6463 \times Cu)}{Qe}$$

Static water bodies in the absence of a site specific dilution (human health carcinogens and human health non-carcinogens):

Discharge from a pipe:

$$\text{Critical Dilution} = \frac{(2.8)\ Pw\ \pi^{1/2}}{Pf}$$

$$WLA = \frac{(Cr-Cu)\ Pf^{*}}{(2.8)\ Pw\ \pi^{1/2}}$$

Discharge from a canal:

$$\text{Critical Dilution} = \frac{(2.38)\ (Pw^{1/2})}{(Pf)^{1/2}}$$

$$WLA = \frac{(Cr-Cu)\ Pf^{1/2*}}{2.38\ Pw^{1/2}}$$

* Pf is set equal to the mixing zone distance specified in LAC 33:IX.1115 for the static water body type, i.e., lake, estuary, Gulf of Mexico, etc.

If a site specific dilution is used, WLA are calculated by subtracting Cu from Cr and dividing by the site specific dilution for human health and aquatic life criteria.

$$WLA = \frac{(Cr-Cu)}{\text{site specific dilution}}$$

Longterm Average Calculations:
LTAa = WLAa X 0.32
LTAc = WLAc X 0.53
LTAh = WLAh

WQBL Calculations:
Select most limiting LTA to calculate daily max and daily avg WQBL

If aquatic life LTA is more limiting:
Daily Maximum = Min(LTAa, LTAc) X 3.11
Daily Average = Min(LTAc, LTAc) X 1.31

If human health LTA is more limiting:
Daily Maximum = LTAh X 2.38
Daily Average = LTAh

Mass Balance Formulas:

mass (lbs/day): (ug/L) X 1/1000 X (flow, MGD) X 8.34 = lbs/day

$$\text{concentration(ug/L)}: \frac{\text{lbs/day}}{\text{(flow, MGD) X 8.34 X 1/1000}} = \text{ug/L}$$

The following is an explanation of the references in the spreadsheet.

(*1) Parameter being screened.
(*2) Instream concentration for the parameter being screened in ug/L. In the absence of accurate supporting data, the instream concentration is assumed to be zero (0).
(*3) Daily average effluent value in concentration units of ug/L or mass units of lbs/day. Units determined on a case-by-case basis as appropriate to the particular situation.
(*4) Daily maximum value in concentration units of ug/L or mass units of lbs/day. Units determined on a case-by-case basis as appropriate to the particular situation.
(*5) Minimum analytical Quantification Levels (MQL's). Established in a letter dated January 27, 1994 from Wren Stenger of EPA Region 6 to Kilren Vidrine of LDEQ and from the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". The applicant must test for the parameter at a level at least as sensitive as the specified MQL. If this is not done, the MQL becomes the application value for screening purposes if the pollutant is suspected to be present on-site and/or in the waste stream. Units are in ug/l or lbs/day depending on the units of the effluent data.

(*6) States whether effluent data is based on 95th percentile estimation. A "1" indicates that a 95th percentile approximation is being used, a "0" indicates that no 95th percentile approximation is being used.

(*7) 95th percentile approximation multiplier (2.13). The constant, 2.13, was established in memorandum of understanding dated October 8, 1991 from Jack Ferguson of Region 6 to Jesse Chang of LDEQ and included in the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". This value is screened against effluent Water Quality Based Limits established in columns (*18) - (*21). Units are in ug/l or lbs/day depending on the units of the measured effluent data.

(*8) LAC 33.IX.1113.C.6, Table 1, Numerical Criteria for Specific Toxic Substances, freshwater (FW) or marine water (MW) (whichever is applicable) aquatic life protection, acute criteria. Units are specified. Some metals are hardness dependent. The hardness of the receiving stream shall generally be used, however a flow weighted hardness may be determined in site-specific situations using the following formula: (Effluent Hardness X ZID Dilution + Receiving Stream Hardness X (1-ZID Dilution)). Dissolved metals are converted to Total metals using partition coefficients in accordance with the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". Similar to hardness, the TSS of the receiving stream shall generally be used, however, a flow weighted TSS may be determined in site-specific situations using the following formula: (Effluent TSS X ZID Dilution + Receiving Stream TSS X (1-ZID Dilution)).

Hardness Dependent Criteria:

Metal	Formula
Cadmium	$e^{(1.1280[\ln(hardness)] - 1.6774)}$
Chromium III	$e^{(0.8190[\ln(hardness)] + 3.6880)}$
Copper	$e^{(0.9422[\ln(hardness)] - 1.3884)}$
Lead	$e^{(1.2730[\ln(hardness)] - 1.4600)}$
Nickel	$e^{(0.8460[\ln(hardness)] + 3.3612)}$
Zinc	$e^{(0.8473[\ln(hardness)] + 0.8604)}$

Dissolved to Total Metal Multipliers for Freshwater Streams (TSS dependent):

Metal	Multiplier
Arsenic	$1 + 0.48 \times TSS^{-0.73} \times TSS$
Cadmium	$1 + 4.00 \times TSS^{-1.13} \times TSS$
Chromium III	$1 + 3.36 \times TSS^{-0.93} \times TSS$
Copper	$1 + 1.04 \times TSS^{-0.74} \times TSS$
Lead	$1 + 2.80 \times TSS^{-0.80} \times TSS$
Mercury	$1 + 2.90 \times TSS^{-1.14} \times TSS$
Nickel	$1 + 0.49 \times TSS^{-0.57} \times TSS$
Zinc	$1 + 1.25 \times TSS^{-0.70} \times TSS$

Dissolved to Total Metal Multipliers for Marine Environments (TSS dependent):

Metal	Multiplier
Copper	$1 + (10^{4.86} \times TSS^{-0.72} \times TSS) \times 10^{-6}$
Lead	$1 + (10^{6.06} \times TSS^{-0.85} \times TSS) \times 10^{-6}$
Zinc	$1 + (10^{5.36} \times TSS^{-0.52} \times TSS) \times 10^{-6}$

If a metal does not have multiplier listed above, then the dissolved to total metal multiplier shall be 1.

(*9) LAC 33.IX.1113.C.6, Table 1, Numerical Criteria for Specific Toxic Substances, freshwater (FW) or marine water (MW) (whichever is applicable) aquatic life protection, chronic criteria. Units are specified. Some metals are hardness dependent. The hardness of the receiving stream shall generally be used, however a flow weighted hardness may be determined in site-specific situations using the following formula: (Effluent Hardness X MZ Dilution + Receiving Stream Hardness X (1-MZ Dilution)). Dissolved metals are converted to Total metals using partition coefficients in accordance with the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". Similar to hardness, the TSS of the receiving stream shall generally be used, however, a flow weighted TSS may be determined in site-specific situations using the following formula: (Effluent TSS X MZ Dilution + Receiving Stream TSS X (1-MZ Dilution)).
Hardness dependent criteria:

Metal	Formula
Cadmium	$e^{(0.7852[\ln(hardness)] - 3.4900)}$
Chromium III	$e^{(0.8473[\ln(hardness)] + 0.7614)}$
Copper	$e^{(0.8545[\ln(hardness)] - 1.3860)}$
Lead	$e^{(1.2730[\ln(hardness)] - 4.7050)}$
Nickel	$e^{(0.8460[\ln(hardness)] + 1.1645)}$
Zinc	$e^{(0.8473[\ln(hardness)] + 0.7614)}$

Dissolved to total metal multiplier formulas are the same as (*8), acute numerical criteria for aquatic life protection.

(*10) LAC 33.IX.1113.C.6, Table 1, Numerical Criteria for Specific Toxic Substances, human health protection, drinking water supply (HHDW), non-drinking water supply criteria (HHNDW), or human health non-primarry contact recreation (HHNPCR) (whichever is applicable). A DEQ and EPA approved Use Attainability Analysis is required before HHNPCR is used, e.g., Monte Sano Bayou. Units are specified.

(*11) C if screened and carcinogenic. If a parameter is being screened and is carcinogenic a "C" will appear in this column.

(*12) Wasteload Allocation for acute aquatic criteria (WLAa). Dilution type WLAa is calculated in accordance with the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". Negative values indicate that the receiving water is not meeting the acute aquatic numerical criteria for that parameter. Units are in ug/L.
Dilution WLAa formulas for streams:

$$WLAa = (Cr/\text{Dilution Factor}) - \frac{(Fs \times Qrc \times 0.6463 \times Cu)}{Qe}$$

Dilution WLAa formulas for static water bodies:
WLAa = (Cr-Cu)/Dilution Factor)
Cr represents aquatic acute numerical criteria from column (*8).
If Cu data is unavailable or inadequate, assume Cu=0

(*13) Wasteload Allocation for chronic aquatic criteria (WLAc). Dilution type WLAc is calculated in accordance with the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". Negative values indicate that the receiving water is not meeting the chronic aquatic numerical criteria for that parameter. Units are in ug/L.
Dilution WLAc formula:

$$WLAc = (Cr/\text{Dilution Factor}) - \frac{(Fs \times Qrc \times 0.6463 \times Cu)}{Qe}$$

Dilution WLAc formulas for static water bodies:
WLAc = (Cr-Cu)/Dilution Factor)
Cr represents aquatic chronic numerical criteria from column (*9).
If Cu data is unavailable or inadequate, assume Cu=0

(*14) Wasteload Allocation for human health criteria (WLAh). Dilution type WLAh is calculated in accordance with the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards". Negative values indicate that the receiving water is not meeting the human health numerical criteria for that parameter. Units are in ug/L. Dilution WLAh formula:

$$WLAh = (Cr/\text{Dilution Factor}) - \frac{(Fs \times Qrc, Qrh \times 0.6463 \times Cu)}{Qe}$$

Dilution WLAh formulas for static water bodies:
WLAh = (Cr-Cu)/Dilution Factor)
Cr represents human health numerical criteria from column (*10).
If Cu data is unavailable or inadequate, assume Cu=0

(*15) Long Term Average for aquatic numerical criteria (LTAa). WLAa numbers are multiplied by a multiplier specified in the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards" which is 0.32. WLAa X 0.32 = LTAa

(*16) Long Term Average for chronic numerical criteria (LTAc). WLAc numbers are multiplied by a multiplier specified in the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards" which is 0.53. WLAc X 0.53 = LTAc

(*17) Long Term Average for human health numerical criteria (LTAh). WLAh numbers are multiplied by a multiplier specified in the "Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards" which is 1. WLAc X 1 = LTAh

(*18) Limiting Acute, Chronic or Human Health LTA's. The most limiting LTA is placed in this column. Units are consistent with the WLA calculation.

(*19) End of pipe Water Quality Based Limit (WQBL) maximum 30-day daily average in terms of concentration, ug/L. If aquatic life criteria was the most limiting LTA then the limiting LTA is multiplied by 1.31 to determine the average WQBL ($LTA_{\text{limiting aquatic}} \times 1.31 = WQBL_{\text{daily average}}$). If human health criteria was the most limiting criteria then $LTAh = WQBL_{\text{daily average}}$.

(*20) End of pipe Water Quality Based Limit (WQBL) 30-day daily maximum in terms of concentration, ug/L. If aquatic life criteria was the most limiting LTA then the limiting LTA is multiplied by 3.11 to determine

the daily maximum WQBL ($LTA_{limiting\ aquatic}$ X 3.11 = $WQBL_{daily\ max}$). If human health criteria was the most limiting criteria then LTAh is multiplied by 2.38 to determine the daily maximum WQBL ($LTA_{limiting\ aquatic}$ X 2.38 = $WQBL_{daily\ max}$).

(*21) End of pipe Water Quality Based Limit (WQBL) maximum 30-day daily average in terms of mass, lbs/day. The mass limit is determined by using the mass balance equations above. Daily average WQBL, ug/l/1000 X facility flow, MGD X 8.34 = daily average WQBL, lbs/day.

(*22) End of pipe Water Quality Based Limit (WQBL) 30 day daily maximum in terms of mass, lbs/day. Mass limit is determined by using the mass balance equations above. Daily maximum WQBL, ug/l/1000 X facility flow, MGD X 8.34 = daily maximum WQBL, lbs/day.

(*23) Indicates whether the screened effluent value(s) need water quality based limits for the parameter of concern. A "yes" indicates that a water quality based limit is needed in the permit; a "no" indicates the reverse.

Appendix C

Calculation of Technology-based Effluent Limitations

TECHNOLOGY-BASED LIMITS

Note: Monthy Average Mass Loading = (avg. production) (monthly avg. production factor)
Daily Maximum Mass Loading = (avg. production) (daily max. production factor)

AMMONIA SUBCATEGORY (40 CFR 418, SUBPART B)

Ammonia Loading:

Ammonia Units I & II:

Manufacturing Operation	Guideline
Fertilizer Manaufacturing Point Source Category, Subpart B	40 CFR 418.23 (BAT)

(6,480,000 lbs/day) (0.025 lbs/1000 lbs) = 162 lbs/day (Monthly Avg.)
(6,480,000 lbs/day) (0.05 lbs/1000 lbs) = 324 lbs/day (Daily Max.)

Ammonia Units III & IV:

Manufacturing Operation	Guideline
Fertilizer Manaufacturing Point Source Category, Subpart B	40 CFR 418.25 (NSPS)

(6,716,000 lbs/day) (0.055 lbs/1000 lbs) = 369.38 lbs/day (Monthly Avg.)
(6,716,000 lbs/day) (0.11 lbs/1000 lbs) = 738.76 lbs/day (Daily Max.)

UREA SUBCATEGORY (40 CFR 418, SUBPART C)

Ammonia Loading:

Urea Unit I expansion & Urea Unit II (granular):

Manufacturing Operation	Guideline
Fertilizer Manaufacturing Point Source Category, Subpart C	40 CFR 418.33(b)(BAT)

(5,100,000 lbs/day) (0.27 lbs/1000 lbs) = 1377 lbs/day (Monthly Avg.)
(5,100,000 lbs/day) (0.53 lbs/1000 lbs) = 2703 lbs/day (Daily Max.)

Urea Unit III & Urea IV (solution):

Manufacturing Operation	Guideline
Fertilizer Manaufacturing Point Source Category, Subpart C	40 CFR 418.35(a)(NSPS)

(4,360,220 lbs/day) (0.27 lbs/1000 lbs) = 1177.26 lbs/day (Monthly Avg.)
(4,360,220 lbs/day) (0.53 lbs/1000 lbs) = 2310.92 lbs/day (Daily Max.)

Urea Unit IV (granular):

Manufacturing Operation	Guideline
Fertilizer Manaufacturing Point Source Category, Subpart C	40 CFR 418.35(b)(NSPS)

(3,491,780 lbs/day) (0.27 lbs/1000 lbs) = 942.78 lbs/day (Monthly Avg.)
(3,491,780 lbs/day) (0.53 lbs/1000 lbs) = 1850.64 lbs/day (Daily Max.)

Organic Nitrogen Loading:

Urea Unit I expansion & Urea Unit II (granular):

Manufacturing Operation	Guideline
Fertilizer Manaufacturing Point Source Category, Subpart C	40 CFR 418.33(b)(BAT)

(5,100,000 lbs/day) (0.46 lbs/1000 lbs) = 2346 lbs/day (Monthly Avg.)
(5,100,000 lbs/day) (0.86 lbs/1000 lbs) = 4386 lbs/day (Daily Max.)

Urea Unit III & Urea IV (solution):

Manufacturing Operation	Guideline
Fertilizer Manaufacturing Point Source Category, Subpart C	40 CFR 418.35(a)(NSPS)

(4,360,220 lbs/day) (0.24 lbs/1000 lbs) = 1046.45 lbs/day (Monthly Avg.)
(4,360,220 lbs/day) (0.45 lbs/1000 lbs) = 1962.10 lbs/day (Daily Max.)

Urea Unit IV (granular):

Manufacturing Operation	Guideline
Fertilizer Manaufacturing Point Source Category, Subpart C	40 CFR 418.35(b)(NSPS)

(3,491,780 lbs/day) (0.46 lbs/1000 lbs) = 1606.22 lbs/day (M onthly Avg.)
(3,491,780 lbs/day) (0.86 lbs/1000 lbs) = 3002.93 lbs/day (Daily Max.)

AMMONIUM NITRATE SUBCATEGORY (40 CFR 418, SUBPART D)

Ammonia Loading:

UAN Units I & II:

Manufacturing Operation	Guideline
Fertilizer Manaufacturing Point Source Category, Subpart D	40 CFR 418.45 (NSPS)

(13,984,000 lbs/day) (0.04 lbs/1000 lbs) = 559.36 lbs/day (Monthly Avg.)
(13,984,000 lbs/day) (0.08 lbs/1000 lbs) = 1118.72 lbs/day (Daily Max.)

Nitrate Loading:

UAN Units I & II:

Manufacturing Operation	Guideline
Fertilizer Manaufacturing Point Source Category, Subpart D	40 CFR 418.45 (NSPS)

(13,984,000 lbs/day) (0.07 lbs/1000 lbs) = 978.88 lbs/day (Monthly Avg.)
(13,984,000 lbs/day) (0.12 lbs/1000 lbs) = 1678.08 lbs/day (Daily Max.)

NITRIC ACID SUBCATEGORY (40 CFR 418, SUBPART E)

Ammonia Loading:

Nitric Acid Unit I:

Manufacturing Operation	Guideline
Fertilizer Manaufacturing Point Source Category, Subpart E	40 CFR 418.53(b) (BAT)

(1,452,000 lbs/day) (0.008 lbs/1000 lbs) = 11.62 lbs/day (Monthly Avg.)
(1,452,000 lbs/day) (0.08 lbs/1000 lbs) = 116.16 lbs/day (Daily Max.)

Nitric Acid Units II & III:

Manufacturing Operation	Guideline
Fertilizer Manaufacturing Point Source Category, Subpart E	40 CFR 418.55(b) (NSPS)

(3,500,000 lbs/day) (0.008 lbs/1000 lbs) = 28 lbs/day (Monthly Avg.)
(3,500,000 lbs/day) (0.08 lbs/1000 lbs) = 280 lbs/day (Daily Max.)

Nitrate Loading:

Nitric Acid Unit I:

Manufacturing Operation	Guideline
Fertilizer Manaufacturing Point Source Category, Subpart E	40 CFR 418.53(b) (BAT)

(1,452,000 lbs/day) (0.023 lbs/1000 lbs) = 33.4 lbs/day (Monthly Avg.)
(1,452,000 lbs/day) (0.17 lbs/1000 lbs) = 246.84 lbs/day (Daily Max.)

Nitric Acid Units II & III:

Manufacturing Operation	Guideline
Fertilizer Manaufacturing Point Source Category, Subpart E	40 CFR 418.55(b) (NSPS)

(3,500,000 lbs/day) (0.023 lbs/1000 lbs) = 80.5 lbs/day (Monthly Avg.)
(3,500,000 lbs/day) (0.17 lbs/1000 lbs) = 595 lbs/day (Daily Max.)

BPJ ALLOCATIONS FROM PROCESS UNIT

Urea Unit I - BPJ limits from the previous LWDPS, NPDES and LPDES permits are being used to calculate mass loadings for this Urea unit. The BPJ production factors previously used in these permits are more stringent than BAT factors found in 40 CFR 418 Subpart C, therefore, replacement of these limits with BAT limits would constitute backsliding.

Ammonia Loading:

Urea Unit I - BPJ
(2,200,000 lbs/day) (0.19 lbs/1000 lbs) = 418 lbs/day (Monthly Avg.)
(2,200,000 lbs/day) (0.38 lbs/1000 lbs) = 836 lbs/day (Daily Max.)

Organic Nitrogen Loading:

Urea Unit I - BPJ
(2,200,000 lbs/day) (0.23 lbs/1000 lbs) = 506 lbs/day (Monthly Avg.)
(2,200,000 lbs/day) (0.46 lbs/1000 lbs) = 1012 lbs/day (Daily Max.)

Total Process Loadings Based upon 40 CFR 418 Subparts A, B, C, D, and E and BPJ Loadings from Urea Unit I		
Parameter	**Daily Maximum Limitation**	**Monthly Average Limitation**
Ammonia (as N)	10,278 lbs/day	5,045 lbs/day
Organic Nitrogen (as N)	10,363 lbs/day	5,505 lbs/day
Nitrate (as N)	2,520 lbs/day	1,093 lbs/day

MISC. BPJ ALLOCATIONS

Ammonia Loading:

	Mthly Avg lbs/day	Daily Max lbs/day
Ammonia Units I - IV CTBD	338	676
Urea, Ammonium Shipping Losses	206	346
Hydrolysis of Urea	81	243

Nitrate Loading:

	Mthly Avg. lbs/day	Daily Max. lbs/day
Nitric Acid I CTBD	120	500
Ammonia Units I - IV CTBD	190	380
Urea I & II CTBD	15	30
Shipping Losses	135	206
Bionitrification in Ditches	160	0
Urea III and Nitric Acid II CTBD	120	500
Nitric Acid III CTBD	120	500

Total Technology-Based Effluent Limitations (The Sum of Process Loadings and BPJ Allocations)		
Parameter	**Daily Maximum Limitation**	**Monthly Average Limitation**
Ammonia (as N)	11,543 lbs/day	5,670 lbs/day
Organic Nitrogen (as N)	10,363 lbs/day	5,505 lbs/day
Nitrate (as N)	4,796 lbs/day	1,793 lbs/day

Appendix D

Effluent data

Outfall 001

EPA I.D. NUMBER LAD056022387

OUTFALL NUMBER 001

V. INTAKE AND EFFLUENT CHARACTERISTICS (Continued From Page 3 of Form 2C) [redacted]

Part A

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONC.	(2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONC.	(2) MASS	c. LONG TERM AVERAGE (1) CONC.	(2) MASS	d. NO. OF ANALYSES	3. UNITS a. CONC.	b. MASS	4. INTAKE (OPTIONAL) a. LONG TERM AVERAGE VALUE (1) CONC.	(2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (BOD)	24	911	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
b. Chemical Oxygen Demand (COD)	427	16203	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
c. Total Organic Carbon (TOC)	39	1480	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
d. Total Suspended Solids (TSS)	1375	52177	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
e. Ammonia (as N)	77.7	5462.8	37.7	1600.9	30.3	1078.1	156	mg/L	lbs/day	NA	NA	NA
f. Flow	VALUE	8.85	VALUE	5.66	VALUE	4.35	Cont. Record	MGD	NA	NA	NA	NA
g. Temperature (summer) See Footnote (1)	VALUE	109	VALUE	96	VALUE	91	Cont. Record	°F	NA	NA	NA	NA
h. Temperature (winter) See Footnote (1)	VALUE	111	VALUE	89	VALUE	77	Cont. Record	°F	NA	NA	NA	NA
	MINIMUM	MAXIMUM	[redacted]									
i. pH	2.4	11.0	[redacted]				Cont. Record	S.U.	NA	NA	NA	NA

Part B

3. POLLUTANT AND CAS NO.	2a. BELIEVED PRESENT	2b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONC.	(2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONC.	(2) MASS	c. LONG TERM AVERAGE (1) CONC.	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONC.	b. MASS	5. INTAKE (OPTIONAL) a. LONG TERM AVERAGE VALUE (1) CONC.	(2) MASS	b. NO. OF ANALYSES
a. Bromide (24959-67-9)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b. Chlorine, Total Residual		X	< 0.05	< 1.90	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
c. Color (True, Apparent)		X	< 1	NA	< 1	NA	< 1	NA	2	APHA units	NA	NA	NA	NA
d. Fecal Coliform		X	< 10	NA	NA	NA	NA	NA	1	col/100 mL	NA	NA	NA	NA
e. Fluoride (16984-48-8)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
f. Nitrate-Nitrite (as N)	X		< 6.9	< 224.4	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
g. Nitrogen, Total Organic (as N)	X		139.8	3847.1	44.7	1447.9	31.7	1058.2	156	mg/L	lbs/day	NA	NA	NA
h. Oil & Grease		X	< 5.0	< 189.7	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
i. Phosphorus (as P), Total (7723-14-0)	X		1.74	66.03	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
j. Radioactivity alpha, Total		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
j. Radioactivity beta, Total		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
j. Radioactivity Radium, Total		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
j. Radioactivity Radium 226, Total		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
k. Sulfate (as $SO_{(4)}$)(14808-79-8)	X		1100	41742	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
l. Sulfide (as S)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m. Sulfite (as $SO_{(3)}$)(14265-45-3)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n. Surfactants		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o. Aluminum, Total (7429-90-5)	X		0.68	25.80	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
p. Barium, Total (7440-33-3)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
q. Boron, Total (7440-42-8)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
r. Cobalt, Total (7440-48-4)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
s. Iron, Total (7439-89-6)	X		0.34	12.90	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
t. Magnesium, Total (7439-95-4)	X		56	2125	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
u. Molybdenum, Total (7439-98-7)	X		0.01	0.38	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
v. Manganese, Total (7439-96-5)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
w. Tin, Total (7440-31-5)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
x. Titanium, Total (7440-32-6)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Continued ...

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OUTFALL NUMBER 001

1. POLLUTANT AND CAS NUMBER	2a. TESTING REQUIRED	2b BELIEVED PRESENT	2c BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONC.	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONC.	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVERAGE (1) CONC.	c. LONG TERM AVERAGE (2) MASS	d. NO OF ANALYSES	4. UNITS a. CONC.	4. UNITS b. MASS	5. INTAKE (OPTIONAL) a. LONG TERM AVERAGE VALUE (1) CONC.	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
art C-Metals, Cyanide, and Total Phenols															
M. Antimony, Total (7440-36-0)			X	< 0.01	< 0.38	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
M. Arsenic, Total (7440-38-2)			X	< 0.01	< 0.38	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
M. Beryllium, Total (7440-41-7)			X	< 0.01	< 0.38	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
M. Cadmium, Total (7440-43-9)			X	< 0.01	< 0.38	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
M. Chromium, Total (7440-47-3)			X	< 0.01	< 0.38	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
M. Copper, Total (7440-50-8)			X	< 0.01	< 0.38	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
M. Lead, Total (7439-92-1)			X	< 0.01	< 0.38	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
M. Mercury, Total (7439-97-6)			X	< 0.0002	< 0.0076	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
M. Nickel, Total (7440-02-0)			X	< 0.01	< 0.38	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
M. Selenium, Total (7782-49-2)			X	< 0.01	< 0.38	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
M. Silver, Total (7440-22-4)			X	< 0.01	< 0.38	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
M. Thallium, Total (7440-28-0)			X	< 0.01	< 0.38	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
M. Zinc, Total (7440-66-6)		X		0.02	0.76	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
M. Cyanide, Total (57-12-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
A. Phenol, Total			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ioxin															
3,7,8-Tetrachlorodibenzo P-Dioxin (1764-01-6)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
art C-Volatile Compounds															
/. Acrolein (107-02-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
/. Acrylonitrile (107-13-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
/. Benzene (71-43-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
/. Bis (Chloromethyl) Ether (542-88-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
/. Bromoform (75-25-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
/. Carbon Tetrachloride (56-23-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
/. Chlorobenzene (108-90-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
/. Chlorodibromomethane (124-48-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
/. Chloroethane (75-00-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
V. 2-Chloroethylvinyl Ether (110-75-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
V. Chloroform (67-66-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
V. Dichlorobromomethane (75-27-4)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
V. Dichlorodifluoromethane (75-71-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
V. 1,1-Dichloroethane (75-34-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
V. 1,2-Dichloroethane (107-06-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M. 1,1-Dichloroethylene (75-35-4)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
V. 1,2-Dichloropropane (78-87-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
V. 1,3-Dichloropropylene (542-75-6)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
V. Ethylbenzene (100-41-4)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
V. Methyl Bromide (74-83-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
V. Methyl Chloride (74-87-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
V. Methylene Chloride (75-09-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Continued....

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1. POLLUTANT AND CAS NUMBER	2a. TESTING REQUIRED	2b BELIEVED PRESENT	2c BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONC.	(2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONC.	(2) MASS	c. LONG TERM AVERAGE (1) CONC.	(2) MASS	d. NO OF ANALYSES	4. UNITS a. CONC.	b. MASS	5. INTAKE (OPTIONAL) a. LONG TERM AVERAGE VALUE (1) CONC.	(2) MASS	b. NO. OF ANALYSES
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24V. Tetrachloroethylene (127-18-4)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
25V. Toluene (108-88-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
27V. 1,1,1-Trichloroethane (71-55-6)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
28V. 1,1,2-Trichloroethane (79-00-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
29V. Trichloroethylene (79-01-6)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
30V. Trichlorofluoromethane (75-69-4)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
31V. Vinyl Chloride (75-01-4)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Part C - Acid Compounds															
1A. 2-Chlorophenol (95-57-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2A. 2,4-Dichlorophenol (120-83-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3A. 2,4-Dimethylphenol (105-67-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4A. 4,6-Dinitro-o-Cresol (534-52-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5A. 2,4-Dinitrophenol (51-28-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6A. 2-Nitrophenol (88-75-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7A. 4-Nitrophenol (100-02-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8A. p-Chloro-m-Cresol (59-50-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9A. Pentachlorophenol (87-86-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10A. Phenol (108-95-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11A. 2,4,6-Trichlorophenol (88-06-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Part C - Base/Neutral Compounds															
1B. Acenaphthene (83-32-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2B. Acenaphthylene (208-96-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3B. Anthracene (120-12-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4B. Benzidine (92-87-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5B. Benzo (a) Anthracene (56-55-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6B. Benzo (a) Pyrene (50-32-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7B. 3,4-Benzofluoranthene (205-99-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8B. Benzo (g,h,i) Perylene (191-24-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9B. Benzo (k) Flouranthene (207-08-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10B. Bis(2-Chloroethoxy) Methane(111-91-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11B. Bis(2-Chloroethyl) Ether (111-44-4)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12B. Bis(2-Chorisopropyl) Ether (102-60-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13B. Bis(2-Ethylhexyl) Phthalate (117-81-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
15B. Butyl Benzyl Phthalate (85-68-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
16B. 2-Chloronaphthalene (91-58-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
18B. Chrysene (218-01-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
19B. Dibenzo (a,h) Anthracene (53-70-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Continued...

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1. POLLUTANT AND CAS NUMBER	2a. TESTING REQUIRED	2b BELIEVED PRESENT	2c BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONC.	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONC.	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVERAGE (1) CONC.	c. LONG TERM AVERAGE (2) MASS	d. NO OF ANALYSES	4. UNITS a. CONC.	4. UNITS b. MASS	5. INTAKE (OPTIONAL) a. LONG TERM AVERAGE VALUE (1) CONC.	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
3. 1,2-Dichlorobenzene (95-50-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. 1,3-Dichlorobenzene (541-73-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. 1,4-Dichlorobenzene (106-46-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. 3,3-Dichlorobenzidine (91-94-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Diethyl Phthalate (84-66-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Dimethyl Phthalate (131-11-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Di-n-Butyl Phthalate (84-74-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. 2,4-Dinitrotoluene (121-14-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. 2,6-Dinitrotoluene (606-20-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Di-n-Octyl Phthalate (117-84-0)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. 1,2-Diphenylhydrazine (122-66-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Fluoranthene (206-44-0)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Fluorene (86-73-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Hexachlorobenzene (118-74-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Hexachlorobutadiene (87-68-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Hexachlorocyclopentadiene (77-47-4)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Hexachloroethane (67-72-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Indeno (1,2,3-cd) Pyrene (193-39-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Isophorone (78-59-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Naphthalene (91-20-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Nitrobenzene (98-95-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. N-Nitrosodimethylamine (62-75-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. N-Nitrosodi-n-Propylamine (621-64-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. N-Nitrosodiphenylamine (86-30-6)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Phenanthrene (85-01-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. Pyrene (129-00-0)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3. 1,2,4-Trichlorobenzene (120-82-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
rt C - Pesticides															
. Aldrin (309-00-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
. alpha-BHC (319-84-6)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
. beta-BHC (319-25-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
. gamma-BHC (58-89-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta BHC (319-86-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane (57-74-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT (50-29-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE (72-55-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD (72-54-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
). Dieldrin (60-57-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
). alpha-Endosulfan (115-29-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
). beta-Endosulfan (115-29-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
). Endosulfan Sulfate (1031-07-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Continued....

1. POLLUTANT AND CAS NUMBER	2a. TESTING REQUIRED	2b. BELIEVED PRESENT	2c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONC.	a. (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONC.	b. (2) MASS	c. LONG TERM AVERAGE (1) CONC.	c. (2) MASS	d. NO OF ANALYSES	4. UNITS a. CONC.	b. MASS	5. INTAKE (OPTIONAL) a. LONG TERM AVERAGE VALUE (1) CONC.	a. (2) MASS	b. NO. OF ANALYSES
EPA I.D. NUMBER LAD056022387													OUTFALL NUMBER 001		
). Endrin (72-20-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
). Endrin Aldehyde (7421-93-4)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
). Heptachlor (76-44-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
). Heptachlor Epoxide (1024-57-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
). PCB 1242 (53469-21-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
). PCB 1254 (11097-69-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
). PCB 1221 (11104-28-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
). PCB 1232 (11141-16-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
). PCB 1248 (12672-29-6)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
). PCB 1260 (11096-82-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
). PCB 1016 (12674-11-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
). Toxaphene (8001-35-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ıer Parameters															
xavalent Chromium (VI) (18540-29-9)	(2)		X	< 0.001	< 0.038	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
al Kjeldahl Nitrogen (TKN)		X		17.4	566.0	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
al Dissolved Solids (E-10173)	(2)	X		1400	45536	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
loride (16887-00-6)	(2)	X		158	5139	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
rate as N (7697-37-2)		X		29.2	1332.0	21.5	811.7	16.6	579.6	156	mg/L	lbs/day	NA	NA	NA
rite as N (14797-65-0)			X	< 0.50	< 16.26	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
lhanol			X	< 2	< 76	< 2	< 76	< 2	< 70	2	mg/L	lbs/day	NA	NA	NA
rbonaceous Biochemical Oxygen Demand (CBOD)		X		54	2049	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA

)TES:

is Form 2C includes data collected in July 2004 when 24-hour composite samples were collected at Outfall 001 for analyses of BOD CBOD, COD, TOC, TSS, color, methanol, total phosphorus, sulfate, aluminum, iron, magnesium, molybdenum, xavalent chromium, and the 13 priority pollutant metals. On this date, grab samples were also collected and analyzed for fecal coliform, total residual chlorine, and oil & grease.

e following Outfall 001 flow rate was used to convert the July 2004 sampling event data from concentration to mass where applicable: 4.55 MGD

r this permit application, a dry-weather sampling event was conducted on April 11, 2005 when grab samples were collected at Outfall 001. In accordance with LAC 33:IX.2501.G.7, single, one-time grab samples may be collected for effluents from lding ponds or other impoundments with a retention time greater than 24-hours. Parameters analyzed during this sampling event and reported on this Form 2C include: nitrite as N, nitrate-nitrite as N, TKN, chloride, color, TDS, and methanol.

e following Outfall 001 flow rate was used to convert the April 11, 2005 sampling event data from concentration to mass where applicable: 3.90 MGD

storical analytical data from calendar year 2004 were used for those parameters required to be routinely monitored at Outfall 001 by the LPDES permit: ammonia (as N), total organic nitrogen (as N), nitrate (as N), pH, and temperature. Flow rate data summarized from calendar years 2003 and 2004.

single analytical results reported with a "less-than" sign (<) were either (1) non-detected in the effluent sample at or below the analytical method detection limit (MDL) achieved by the applicable laboratory analytical method, or (2) non-detected and antifiable at the practical quantitation limit (PQL) achieved by the applicable laboratory analytical method. For pollutants with multiple analyses, when an average was calculated, a less-than sign indicates that at least one analytical result was non-ected.

laboratory analyses for the 04/11/05 sampling event were performed by ENTEK Environmental Laboratories, Inc. of Baton Rouge, LA. All methods were in accordance with 40 CFR 136 except for nitrate-N, nitrite-N, and chloride which were analyzed ng Method 300.0 and methanol which was analyzed using Method SW846 8015.

For the purposes of the Form 2C, summer months were assumed to be April - September and winter October - March.

Additional analytes required in accordance with LAC 33:IX.2707.D, and which may be included in the LDEQ Water Quality Standards screen. These parameters were analyzed for the purpose of the permit shield, although not specifically required per C 33:IX.2501 G.7.c, LAC 33:IX.2501.G.7.e, or LAC 33:IX.2501.G.7.f.

= Testing not required or not applicable
/L = milligrams per liter
'day = pounds per day
.D = million gallons per day
= degrees Fahrenheit
. = standard units

Outfall 501

EPA I.D. NUMBER LAD056022387

OUTFALL NUMBER 501

V. INTAKE AND EFFLUENT CHARACTERISTICS (Continued From Page 3 of Form 2C) [redacted]

Part A

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONC.	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONC.	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVERAGE (1) CONC.	c. LONG TERM AVERAGE (2) MASS	d. NO. OF ANALYSES	3. UNITS a. CONC.	3. UNITS b. MASS	4. INTAKE (OPTIONAL) a. LONG TERM AVERAGE VALUE (1) CONC.	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. (Carbonaceous) Biochemical Oxygen Demand (CBOD)	7	0.18	7	0.18	4	0.12	8	mg/L	lbs/day	NA	NA	NA
b. Chemical Oxygen Demand (COD)	7.0	0.5	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
c. Total Organic Carbon (TOC)	6.0	0.4	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
d. Total Suspended Solids (TSS)	10	0.20	9	0.20	< 5	< 0.13	8	mg/L	lbs/day	NA	NA	NA
e. Ammonia (as N)	< 0.10	< 0.01	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
f. Flow See Footnote (1)	VALUE	15206	VALUE	9492	VALUE	4968	88 (1)	GPD	NA	NA	NA	NA
g. Temperature (summer)	VALUE	76	VALUE	NA	VALUE	NA	1	°F	NA	NA	NA	NA
h. Temperature (winter)	VALUE	NA	VALUE	NA	VALUE	NA	NA	NA	NA	NA	NA	NA
i. pH	MINIMUM 7.24	MAXIMUM 7.24	[redacted]				1	S.U.	NA	NA	NA	NA

Part B

3. POLLUTANT AND CAS NO.	2a. BELIEVED PRESENT	2b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONC.	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONC.	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVERAGE (1) CONC.	c. LONG TERM AVERAGE (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONC.	4. UNITS b. MASS	5. INTAKE (OPTIONAL) a. LONG TERM AVERAGE VALUE (1) CONC.	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Bromide (24959-67-9)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
b. Chlorine, Total Residual		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
c. Color (True, Apparent)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
d. Fecal Coliform		X	< 10	NA	< 10	NA	< 10	NA	11	col/100 mL	NA	NA	NA	NA
e. Fluoride (16984-48-8)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
f. Nitrate-Nitrite (as N)	X		< 14.1	< 1.0	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
g. Nitrogen, Total Organic (as N)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
h. Oil & Grease		X	< 5.0	< 0.3	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
i. Phosphorus (as P), Total (7723-14-0)	X		6.03	0.41	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
j. Radioactivity alpha, Total		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
j. Radioactivity beta, Total		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
j. Radioactivity Radium, Total		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
j. Radioactivity Radium 226, Total		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
k. Sulfate (as $SO_{(4)}$)(14808-79-8)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
l. Sulfide (as S)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m. Sulfite (as $SO_{(3)}$)(14265-45-3)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n. Surfactants		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o. Aluminum, Total (7429-90-5)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p. Barium, Total (7440-33-3)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
q. Boron, Total (7440-42-8)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
r. Cobalt, Total (7440-48-4)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
s. Iron, Total (7439-89-6)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
t. Magnesium, Total (7439-95-4)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
u. Molybdenum, Total (7439-98-7)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
v. Manganese, Total (7439-96-5)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
w. Tin, Total (7440-31-5)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
x. Titanium, Total (7440-32-6)		X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Continued....

1. POLLUTANT AND CAS NUMBER	2a. TESTING REQUIRED	2b BELIEVED PRESENT	2c BELIEVED ABSENT	EPA I.D. NUMBER LAD056022387 — 3. EFFLUENT — a. MAXIMUM DAILY VALUE (1) CONC.	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONC.	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVERAGE (1) CONC.	c. LONG TERM AVERAGE (2) MASS	d. NO OF ANALYSES	4. UNITS a. CONC.	4. UNITS b. MASS	OUTFALL NUMBER 501 — 5. INTAKE (OPTIONAL) a. LONG TERM AVERAGE VALUE (1) CONC.	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
1 C-Metals, Cyanide, and Total Phenols															
. Antimony, Total (7440-36-0)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
. Arsenic, Total (7440-38-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
. Beryllium, Total (7440-41-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
. Cadmium, Total (7440-43-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
. Chromium, Total (7440-47-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
. Copper, Total (7440-50-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
. Lead, Total (7439-92-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
. Mercury, Total (7439-97-6)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
. Nickel, Total (7440-02-0)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M. Selenium, Total (7782-49-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M. Silver, Tota (7440-22-4)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M. Thallium, Total (7440-28-0)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M. Zinc, Total (7440-66-6)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
M. Cyanide, Total (57-12-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
A. Phenol, Total			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
oxin															
3,7,8-Tetrachlorodibenzo P-Dioxin (1764-01-6)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
art C-Volatile Compounds															
/. Acrolein (107-02-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
/. Acrylonitrile (107-13-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
/. Benzene (71-43-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
/. Bis (Chloromethyl) Ether (542-88-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
/. Bromoform (75-25-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
/. Carbon Tetrachloride (56-23-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
V. Chlorobenzene (108-90-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
V. Chlorodibromomethane (124-48-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
V. Chloroethane (75-00-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0V. 2-Chloroethylvinyl Ether (110-75-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1V. Chloroform (67-66-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2V. Dichlorobromomethane (75-27-4)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3V. Dichlorodifluoromethane (75-71-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4V. 1,1-Dichloroethane (75-34-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5V. 1,2-Dichloroethane (107-06-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6M. 1,1-Dichloroethylene (75-35-4)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7V. 1,2-Dichloropropane (78-87-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8V. 1,3-Dichloropropylene (542-75-6)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9V. Ethylbenzene (100-41-4)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0V. Methyl Bromide (74-83-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1V. Methyl Chloride (74-87-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2V. Methylene Chloride (75-09-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Continued...

				EPA I.D. NUMBER LAD056022387									OUTFALL NUMBER 501		
1. POLLUTANT AND CAS NUMBER	2a. TESTING REQUIRED	2b BELIEVED PRESENT	2c BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONC.	(2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONC.	(2) MASS	c. LONG TERM AVERAGE (1) CONC.	(2) MASS	d. NO OF ANALYSES	4. UNITS a. CONC.	b. MASS	5. INTAKE (OPTIONAL) a. LONG TERM AVERAGE VALUE (1) CONC.	(2) MASS	b. NO. OF ANALYSES
3V. 1,1,2,2-Tetrachloroethane (79-34-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4V. Tetrachloroethylene (127-18-4)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5V. Toluene (108-88-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6V. 1,2-Trans-Dichloroethylene (156-60-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7V. 1,1,1-Trichloroethane (71-55-6)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8V. 1,1,2-Trichloroethane (79-00-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9V. Trichloroethylene (79-01-6)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0V. Trichlorofluoromethane (75-69-4)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1V. Vinyl Chloride (75-01-4)			X			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
art C - Acid Compounds															
A. 2-Chlorophenol (95-57-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
A. 2,4-Dichlorophenol (120-83-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
A. 2,4-Dimethylphenol (105-67-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
A. 4,6-Dinitro-o-Cresol (534-52-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
A. 2,4-Dinitrophenol (51-28-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
A. 2-Nitrophenol (88-75-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
A. 4-Nitrophenol (100-02-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
A. p-Chloro-m-Cresol (59-50-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
A. Pentachlorophenol (87-86-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0A. Phenol (108-95-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1A. 2,4,6-Trichlorophenol (88-06-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
'art C - Base/Neutral Compounds															
B. Acenaphthene (83-32-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B. Acenaphthylene (208-96-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B. Anthracene (120-12-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B. Benzidine (92-87-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B. Benzo (a) Anthracene (56-55-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B. Benzo (a) Pyrene (50-32-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B. 3,4-Benzofluoranthene (205-99-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B. Benzo (g,h,i) Perylene (191-24-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B. Benzo (k) Flouranthene (207-08-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0B. Bis(2-Chloroethoxy) Methane(111-91-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1B. Bis(2-Chloroethyl) Ether (111-44-4)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2B. Bis(2-Chlorisopropyl) Ether (102-60-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3B. Bis(2-Ethylhexyl) Phthalate (117-81-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4B. 4-Bromophenyl Phenyl Ether (101-55-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5B. Butyl Benzyl Phthalate (85-68-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6B. 2-Chloronaphthalene (91-58-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7B. 4-Chlorophenyl Phenyl Ether (7005-72-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8B. Chrysene (218-01-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9B. Dibenzo (a,h) Anthracene (53-70-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Continued....

				EPA I.D. NUMBER LAD056022387									OUTFALL NUMBER 501		
1. POLLUTANT AND CAS NUMBER	2a. TESTING REQUIRED	2b BELIEVED PRESENT	2c BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONC.	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONC.	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVERAGE (1) CONC.	c. LONG TERM AVERAGE (2) MASS	d. NO OF ANALYSES	4. UNITS a. CONC.	b. MASS	5. INTAKE (OPTIONAL) a. LONG TERM AVERAGE VALUE (1) CONC.	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
1,2-Dichlorobenzene (95-50-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene (541-73-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene (106-46-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine (91-94-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl Phthalate (84-66-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl Phthalate (131-11-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Butyl Phthalate (84-74-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene (121-14-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene (606-20-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-Octyl Phthalate (117-84-0)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Diphenylhydrazine (122-66-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene (206-44-0)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene (86-73-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene (118-74-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene (87-68-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene (77-47-4)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane (67-72-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno (1,2,3-cd) Pyrene (193-39-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone (78-59-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene (91-20-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene (98-95-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine (62-75-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-n-Propylamine (621-64-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine (86-30-6)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene (85-01-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene (129-00-0)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene (120-82-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
rt C - Pesticides															
Aldrin (309-00-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
alpha-BHC (319-84-6)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
beta-BHC (319-25-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (58-89-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
delta BHC (319-86-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chlordane (57-74-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDT (50-29-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDE (72-55-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4-DDD (72-54-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
P. Dieldrin (60-57-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
P. alpha-Endosulfan (115-29-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
P. beta-Endosulfan (115-29-7)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
P. Endosulfan Sulfate (1031-07-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

				EPA I.D. NUMBER LAD056022387									OUTFALL NUMBER 501		
1. POLLUTANT AND CAS NUMBER	2a. TESTING REQUIRED	2b BELIEVED PRESENT	2c BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONC.	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (1) CONC.	b. MAXIMUM 30 DAY VALUE (2) MASS	c. LONG TERM AVERAGE (1) CONC.	c. LONG TERM AVERAGE (2) MASS	d. NO OF ANALYSES	4. UNITS a. CONC.	4. UNITS b. MASS	5. INTAKE (OPTIONAL) a. LONG TERM AVERAGE VALUE (1) CONC.	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
Endrin (72-20-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin Aldehyde (7421-93-4)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor (76-44-8)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Heptachlor Epoxide (1024-57-3)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1242 (53469-21-9)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1254 (11097-69-1)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1221 (11104-28-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1232 (11141-16-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1248 (12672-29-6)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1260 (11096-82-5)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1016 (12674-11-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toxaphene (8001-35-2)			X	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
er Parameters															
l Kjeldahl Nitrogen (TKN)			X	< 0.20	< 0.01	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
ite-N (7697-37-2)		X		13.6	0.9	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA
te-N (14797-65-0)			X	< 0.50	< 0.03	NA	NA	NA	NA	1	mg/L	lbs/day	NA	NA	NA

TES:

nples for parameters which have only one analysis were collected during a sampling event on April 11, 2005 when grab samples were collected at Outfall 501. Only grab samples were collected (not 24-hour composites) because it is an rmittent discharge, not a continuous one.

e following Outfall 501 flow rate was used to convert the April 11, 2005 sampling event data from concentration to mass where applicable: 0.008146 MGD

torical analytical data from June 8, 2003 through November 10, 2004 were used for those parameters required to be routinely monitored at the outfall by the LPDES permit: carbonaceous biochemical oxygen demand, total suspended solids, f fecal coliform.

single analytical results reported with a "less-than" sign (<) were either (1) non-detected in the effluent sample at or below the analytical method detection limit (MDL) achieved by the applicable laboratory analytical method, or (2) non-ected and quantifiable at the practical quantitation limit (PQL) achieved by the applicable laboratory analytical method. For pollutants with multiple analyses, when an average was calculated, a less-than sign indicates that at least one alytical result was non-detected.

laboratory analyses for the 04/11/05 sampling event were performed by ENTEK Environmental Laboratories, Inc. of Baton Rouge, LA. All methods were in accordance with 40 CFR 136 except for nitrate-N and nitrite-N which were analyzed ng Method 300.0.

The flow rate at Outfall 501 is intermittent and is required by the LPDES permit to be estimated 1/quarter. The flow rates presented herein were estimated using weekly totalizer readings to obtain an average daily flow rate for each week for e period April 26, 2003 through January 1, 2005.

A = Testing not required or not applicable
g/L = milligrams per liter
s/day = pounds per day
PD = gallons per day
GD = million gallons per day
= degrees Fahrenheit
U. = standard units