JOHN BEL EDWARDS
GOVERNOR

CHUCK CARR BROWN, PH.D.
SECRETARY

State of Louisiana

DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

MAR 3 1 2023

CERTIFIED MAIL 7021 1970 0001 4211 8600 RETURN RECEIPT REQUEST

File No.: LA0059030
AI No.: 19588
Activity No.: PER20200003

Ms. Lauren Carpenter
Entergy Louisiana, LLC
Roy S. Nelson Plant (Coal Unit 6)
Post Office Box 61000,L-ENT-5E
New Orleans, LA 70161-1000

RE: Louisiana Pollutant Discharge Elimination System (LPDES) permit to discharge cooling tower blowdown; coal pile runoff; coal ash disposal landfill runoff; coal handling area runoff; coal ash disposal landfill combustion residual leachate; cooling tower drift; miscellaneous non-process wastewater; low volume wastewaters; bottom ash transport water; bottom ash purge water; wastewater associated with demolition activities; groundwater infiltration; stormwater runoff; hydrostatic test wastewater; and treated sanitary wastwater to local drainage thence to the Houston River from an existing steam electric generating plant located at 3500 Houston River Road in Westlake, Calcasieu Parish.

Dear Ms. Carpenter:

This Office has not received any comments from Entergy Louisiana, LLC in response to the public notice published in the Office of Environmental Services Public Notice Mailing List on May 5, 2022, and on the LDEQ website on May 6, 2022. However, comments have been received from the general public. A public hearing was held at the City of Westlake Council Chambers, located at 1001 Mulberry Street, in Westlake, Louisiana on June 16, 2022. Comments were reviewed and summarized in the attached Public Comments Response Summary and Basis for Decision documents.

Please note, the following changes have been made to the final permit:

1. Whole Effluent Toxicity (WET) Testing – The monitoring frequency reduction option has been removed from the final permit based on the failures that have occurred after the biomonitoring recommendation date. See Other Conditions, Paragraph X.

2. Outfall 003 - Based on public comments, a recordkeeping requirement has been added to the final permit. The permittee shall provide the following information with the monthly DMR for each discharge of bottom ash purge water during the monitoring period: (1) the date(s) for the purge water discharge; (2) the total volume of water discharged during each purge; and (3) the reason for the purge. See Effluent Limitations and Monitoring Requirements for Outfall 003, Narrative Requirement N-11.

3. Outfall 001 – The statistical basis for the fecal coliform parameter has been changed from a monthly average to a monthly geometric average at the request of the Permit Compliance Unit. This change is consistent with the definition for monthly average presented in Section F of the Standard Conditions for LPDES Permits attached to this permit.

Pursuant to the Clean Water Act (33 U.S.C. 1251 et seq.), and the Louisiana Environmental Quality Act (La. R.S. 30:2001, et seq.), the attached LPDES permit has been issued. Provisions of this permit may be appealed in writing pursuant to La. R.S. 30:2024 (A) within 30 days of receipt of this permit. A request for a hearing must be sent to the following:

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

Upon the effective date, this permit shall replace the previously effective LPDES permit, LA0059030.

Pursuant to LAC 33:IX.2701.L.4.a, monitoring results shall be reported to the Enforcement Division through a department-approved electronic document receiving system (NetDMR). Paper DMRs or an alternative substitute may only be utilized by the permittee if the LDEQ Enforcement Division grants a written authorization to the permittee. See the enclosed NetDMR information sheet.

Pursuant to LAC 33:IX.1309.I, LAC 33:IX.6509.A.1 and LAC 33:I.1701, you must pay any outstanding fees to the Department. Therefore, please verify your facility's fee status by contacting LDEQ's Office of Management and Finance, Financial Services Division at (225) 219-3863. **Any outstanding fees must be remitted via a check to the Louisiana Department of Environmental Quality within thirty (30) days after the effective date of your permit.** Failure to pay the full amount due in the manner and time prescribed could result in applicable enforcement actions as prescribed in the Environmental Quality Act, including, but not limited to revocation or suspension of the applicable permit, and/or a civil penalty against you.

All LPDES permitted facilities which have a standalone designated sanitary treatment works in which sewage sludge is pumped out or removed may be subject to additional requirements under the Louisiana Sewage Sludge and Biosolids Use or Disposal General Permit, LAJ660000. Please refer to LDEQ's sewage sludge and biosolids page (https://www.deq.louisiana.gov/page/sewage-biosolids) to determine your facility's applicability. Please note, permittees subject to the LAJ660000 permit must submit an Annual Sewage Sludge Reporting Form (Form 7264) to the Water Permits Division by January 28th each year.

Should you have any questions concerning any part of the permit, please contact Michelle Bickham of the Office of Environmental Services at the address on the first page or by telephone at (225) 219-3193. To ensure that all correspondence regarding this facility is properly filed, please reference your Agency Interest number 19588 and LPDES permit number LA0059030 on all future correspondence to this Department.

Sincerely,

Bliss M Higgins

Bliss M. Higgins
Assistant Secretary

lwk

Attachment(s): including Basis for Decision, Public Comments Response Summary, final permit and NetDMR information

c: IO-W

ec: Lisa Kemp
Michelle Bickham
Jenniffer Sheppard
Melanie Connor
Water Permits Division

Ms. Evelyn Rosborough (6WQ-CA)
U. S. EPA, Region VI

Permit Compliance Unit
Permit Compliance Unit/Schedules
Permit Compliance Unit/Reports
Southwest Regional Office
Office of Environmental Compliance

Public Health Chief Engineer
Office of Public Health
Department of Health

Alex Sheffield, P. E.
C-K Associates
alex.sheffield@c-ka.com

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL SERVICES

BASIS FOR DECISION

LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (LPDES)
PERMIT NO. LA0059030
AGENCY INTEREST (AI) NO. 19588
ACTIVITY NO. PER20200003

ENTERGY LOUISIANA, LLC
ROY S. NELSON ELECTRIC GENERATING PLANT (COAL UNIT 6)
WESTLAKE, CALCASIEU PARISH, LOUISIANA

The Louisiana Department of Environmental Quality (LDEQ or the Department), Office of Environmental Services (OES), has issued Entergy Louisiana, LLC (Entergy) a Louisiana Pollutant Discharge Elimination System (LPDES) permit for the existing Roy S. Nelson Electric Generating Plant (Coal Unit 6), located at 3500 Houston River Road in Westlake, Calcasieu Parish.

An explanation of LDEQ's reasoning for issuance of the permit is set forth below. This explanation provides background on the facility and its operations, an IT Analysis,[1] a summary of the facility's compliance history, an antidegradation analysis, and a summary of the public comments and LDEQ's responses. Official records referenced in this document are located in the LDEQ's Electronic Document Management System (EDMS).[2]

I. BACKGROUND

A. Background

Entergy's Roy S. Nelson Electric Generating Plant (Coal Unit 6) (Nelson Coal Unit 6, facility, or power plant) is an existing fossil fuel-fired steam electric generating facility that started operating in 1982.[3] The facility is own by and operated by Entergy Louisiana, LLC,[4] and is located at 3500 Houston River Road in Westlake, Calcasieu Parish, Louisiana. The applicant's mailing address is Post Office Box 61000, Mail Unit L-ENT-4E, New Orleans, LA 70161-1000.[5]

Nelson Coal Unit 6 is located adjacent to the Roy S. Nelson Oil & Gas Generating Plant (LPDES permit LA0005843) and shares the same surface water intake system. Steam electric generating units at the Roy S. Nelson Oil & Gas Generating Plant use petroleum

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1 See Section IV on IT Analysis *infra*.

2 EDMS is the LDEQ's electronic repository of official records that have been created or received by LDEQ. Employees and members of the public can search and retrieve document stored in the EDMS via the LDEQ's website (see http://deq.louisiana.gov/page/edms)http://www.deq.louisiana.gov/portal/tabid/2604/Default.aspx.

3 LPDES permit renewal application dated July 2, 2020 (EDMS Document No. 12245198, page 7 of 572).

4 LPDES permit renewal application dated July 2, 2020 (EDMS Document No. 12245198, page 82 of 572).

5 LPDES permit renewal application dated July 2, 2020 (EDMS Document No. 12245198, page 83 of 572).

coke or natural gas as fuel. Nelson Coal Unit 6 uses coal as fuel and discharges treated wastewaters, utility waters, and stormwater under its own LPDES permit (LA0059030). Metal cleaning wastewater from the Nelson Coal Unit 6 is treated and discharged under LPDES permit LA0005843 for the Roy S. Nelson Oil & Gas Generating Plant.[6]

Source water for the Nelson Coal Unit 6 facility is primarily obtained from the Sabine River Authority (SRA) through a surface water intake (cooling water intake structure) that is shared with the Roy S. Nelson Oil and Gas Generating Plant. The water comes through a series of canals operated and maintained by the SRA and enters a holding pond that services the entire Nelson Plant (including Nelson Coal Unit 6). Clean Water Act Section 316(b) requirements for the cooling water intake structure (CWIS) have been established under the Roy S. Nelson Oil & Gas Generating Plant's LPDES permit LA0005843.[7] Entergy uses groundwater from on-site wells for potable water supply, service water, and steam makeup.[8]

B. Permit Application

Nelson Coal Unit 6 currently operates under LPDES permit LA0059030. This permit renewal authorizes Nelson Coal Unit 6 to discharge wastewater from final Outfalls 001, 002, 003, 004, and 005 into local drainage, thence to the Houston River.

The permit reissuance is due to the expiration of the previous permit. Through this renewal permit action, the LDEQ authorizes Nelson Coal Unit 6 to discharge wastewater in accordance with the effluent limitations, monitoring requirements, best management practices (BMPs), and other conditions set forth in the permit. Entergy submitted a water permit application on July 2, 2020, requesting renewal of its LPDES permit for the discharges associated with the existing steam electric generating facility pursuant to the LPDES Program under the Clean Water Act, 33 U.S.C. 1251 *et. seq.*, La R.S. 30:2001 *et. seq.*[9]

The previous LPDES permit became effective on January 1, 2016, and expired on December 31, 2020. Entergy's renewal application was received on July 2, 2020.[10] Therefore, LPDES permit LA0059030 was administratively continued as per LAC 33:IX.2321.A.1 and LAC 33:IX.2501.D.2.

The permittee provided an Environmental Assessment Statement (EAS) (responses to the "IT" Questions) as part of the renewal application submittal. The "IT" Questions, long with

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6 LPDES permit renewal application dated July 2, 2020 (EDMS Document No. 12245198, pages 7 and 24 of 572).
7 See EDMS Document No. 13189703.
8 LPDES permit renewal application dated July 2, 2020 (EDMS Document No. 12245198, pages 22-23 of 572).
9 LPDES permit renewal application dated July 2, 2020 (EDMS Document No. 12245198).
10 LPDES permit renewal application dated July 2, 2020 (EDMS Document No. 12245198).

the applicant's responses can be found in Appendix H of the renewal application dated July 2, 2020.[11]

The following additional application information was used in the development of the renewal permit: additional information received by email on January 12, 2021; additional information received by letter May 3, 2021 (dated April 28, 2021); additional information received by email on June 10, 2021; application addendum dated June 30, 2021 (analytical data); additional information received by email July 13, 2021 and July 16, 2021; application addendum dated July 23, 2021 (combustion residual leachate revisions and analytical data; and bottom ash transport water additional information); and additional information received by email October 8, 2021; October 20, 2021; October 26, 2021; November 2, 2021; November 5, 2021; and December 13, 2021.[12]

Entergy submitted a bottom ash system preliminary evaluation on November 18, 2021.[13]

Additional information was submitted by email in response to a technical review of the working draft permit on January 26, 2022.[14]

C. Facility Operations

Entergy owns and operates Nelson Coal Unit 6, an existing steam electric generating plant that has been in operation since 1982. The coal-fired boiler feeds a steam turbine and generator that has a maximum generating capacity of 550 megawatts. The plant burns western coal as well as commingling percentages of lignite and other coals from the international fuel market. Coal and lignite are delivered to the site by railcar or truck. The facility can also burn No. 2 and No. 4 fuel oils as secondary fuels. The facility consists of a coal/lignite-fired boiler and turbine unit, storage areas, drainage areas, a treatment pond, a recirculating water system (cooling tower), and other ancillary buildings and equipment. The site also has supporting maintenance, storage, and power transmission facilities. Nelson Coal Unit 6 operates a permitted ash landfill and a coal storage area in the west and northwest areas of the site.[15]

The Nelson Coal Unit 6 facility does not have fly ash and bottom ash ponds. This facility dry handles fly ash and conditions sluiced bottom ash by routing the ash to an ash conditioning system that produces a dry product. Fly ash is collected dry in hoppers, pneumatically transferred to storage silos, and subsequently sold or staged at the ash landfill which is located on site. Nelson Coal Unit 6 currently operates a wet sluice water system (bottom ash handling system). The bottom ash system uses water to make a slurry

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11 See EAS (EDMS Document No. 12245198, pages 544-572 of 572).
12 See EDMS Document Nos. 12245198, 12932783, 12716268, 12932786, 12794591, 12933632, 12932790, 12932789, 12932787, 12838188, 12941297, 12941297, 12977044, 12977045, 12977046, and 13047061.
13 See EDMS Document No. 13002947.
14 See EDMS Document No. 13098470.
15 LPDES permit renewal application dated July 2, 2020 (EDMS Document No. 12245198, page 12 of 572).

which is then sluiced to a cyclone filter (hydrobin). The water is decanted and normally recycled back into the bottom ash handling system. However, bottom ash handling system water would be sent to the settling pond and discharged through Outfall 003 or Outfall 005[16] in a situation such as overflow of the bottom ash handling system surge tank during startup/shut-down of ash quenching; maintenance events; or overflow of the bottom ash hopper sump during heavy rain events. The solids are stored prior to being sold or staged at the ash landfill.[17] Ash disposal area runoff, coal pile runoff, and bottom ash handling system wastewater (normally recycled) are routed to a permitted surface impoundment (settling pond) that is then discharged through Outfall 003 or Outfall 005.

According to the application, the ash disposal area is regulated as an existing coal combustion residuals (CCR) Landfill under the CCR Rule, and Entergy is required to publish groundwater monitoring data relating to that area for public availability. The Entergy CCR website for the Nelson Coal Unit 6 is located at www.entergy-louisiana.com/ccr.[18]

D. Permit Action

The renewal permit authorizes the Nelson Coal Unit 6 facility to discharge cooling tower blowdown; coal pile runoff; coal ash disposal landfill runoff; coal handling area runoff; coal ash disposal landfill combustion residual leachate; cooling tower drift; miscellaneous non-process wastewater;[19] low volume wastewaters;[20] bottom ash transport water; bottom ash purge water;[21] wastewater associated with demolition activities;[22] groundwater infiltration; stormwater runoff; hydrostatic test wastewater; and treated sanitary wastewater to local drainage thence to the Houston River.

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16 Outfall 005 is for the intermittent discharge of overflow stormwater from the settling pond that normally discharges through Outfall 003 and previously monitored hydrostatic wastewater from Internal Outfall 303.

17 LPDES permit renewal application dated July 2, 2020, (EDMS Document No. 12245198, page 15 of 572).

18 LPDES permit renewal application dated July 2, 2020 (EDMS Document No. 12245198, page 13 of 572).

19 Miscellaneous Non-Process Wastewaters - The permittee identified a group of low contamination potential wastewater types that can be discharged through Outfalls 003, 004, and 005. These wastewaters are listed as miscellaneous non-process wastewaters in the outfall descriptions. Miscellaneous non-process wastewaters include, but are not limited to, firewater system water including testing and firefighting activities (without foam); emergency eyewash and shower stations testing and use; line flushing (potable water, including disinfection, or other non-process service lines); routine pavement, pad, building, and equipment washdown waters (without soaps and detergents); uncontaminated condensate from air conditioners, coolers, and other compressors and atmospheric condensate generated on the outside of storage tanks and equipment; drainage from the irrigation of vegetation and landscaping; uncontaminated groundwater, including pressure relief water from the groundwater supply wells or purged uncontaminated groundwater from monitoring wells; groundwater well maintenance wastewater; freeze protection water; vehicle rinsewater (no soaps and detergents); dust suppression water; noncontaminated water removed from electrical vaults; water from hydroblast excavation activities (hydro-tunneling in non-contaminated soil using non-contaminated water sources); and de minimis leaks from the potable water, cooling water, utility water, or firewater service distribution system network pipelines.

20 Low volume wastewaters include, but are not limited to, plant drains; cooling tower basin cleaning wastewater; seal water; boiler and steam condensates, including steam traps; boiler blowdown; boiler drains and turbine drains; laboratory and sampling stream drains; turbine condenser water box drains; and maintenance wastewater.

21 The term "bottom ash purge water" means any water being discharged subject to 40 CFR 423.13(k)(2)(i).

22 Wastewater associated with demolition activities includes, but is not limited to, dust suppression water; and equipment washwater (no soaps or detergents) and rainwater from decommissioned and cleaned units.

The renewal permit includes the following changes:

1. Incidental and minor changes reflective of current Office guidance shall not be detailed in this section.

2. The outfall descriptions have been updated based on the application and additional information received from the facility.

3. The renewal permit has been developed to incorporate EPA's revisions to the effluent limitation guidelines (ELGs) for the steam electric power generating point source category (40 CFR 423), which were published in the Federal Register in November 2015 and amended by the 2020 Rule, which was published in the Federal Register in October 2020.[23]

   In the 2015 revisions, the EPA established best available technology economically achievable (BAT) effluent limitations and standards for various wastewaters at steam electric plants: fly ash transport water, bottom ash transport water, flue gas mercury control (FGMC) wastewater, flue gas desulfurization (FGD) wastewater, gasification wastewater, and combustion residual leachate.

   On April 12, 2019, the Fifth Circuit Court of Appeals remanded sections of the November 2015 BAT effluent limitations for combustion residual leachate and legacy wastewater back to EPA for reconsideration.[24] Therefore, the best practicable control technology currently available (BPT) effluent limitations guidelines (40 CFR 423.12) for these wastewaters are currently effective. Legacy wastewater is wastewater from five of the streams (FGD, fly ash, bottom ash, FGMC, and gasification wastewater) that is generated prior to the compliance date listed in the permit for the stricter BAT standards. LPDES permit LA0059030 authorizes the discharge of combustion residual leachate and legacy bottom ash transport water. Legacy wastewater from the other wastewater streams is not being discharged.

   The 2020 rule revised the ELGs for FGD wastewater and bottom ash transport water and created additional subcategories for these two wastewaters. There were no changes to the other wastewaters.

   The Nelson Coal Unit 6 facility is authorized to discharge bottom ash transport water (generated before December 31, 2025); bottom ash purge water; and combustion residual leachate. LPDES permit LA0059030 does not authorize the discharge of any of the other wastewaters listed above (fly ash transport water,

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23 https://www.epa.gov/eg/steam-electric-power-generating-effluent-guidelines

24 See *Southwestern Electric Power Co. v. EPA*, 15-60821 (5th Cir. 4/12/19), 920 F.3d 999.

FGMC wastewater, FGD wastewater, and gasification wastewater). Therefore, these wastewaters were not considered in the renewal permit.

Additionally, the EPA Administrator, Michael S. Regan, signed a proposed rule and notice of public hearing on March 7, 2023, and EPA is submitting it for publication in the Federal Register (FR).[25] EPA expects permitting authorities to continue to implement the current regulations while the Agency undertakes a new rulemaking, and LDEQ has done so, implementing the steam electric facility ELGs into this permit.[26]

See Section IV.B.4 below and Sections X, XIII, and XIV of the Fact Sheet for LPDES draft renewal permit LA0059030 for detailed information regarding implementation of the steam electric ELG revisions in the renewal permit for the Nelson Coal Unit 6 plant.[27]

Bottom Ash Transport Water and Bottom Ash Purge Water (Outfall 003)

EPA's effluent limitations guidelines for bottom ash transport water in the steam electric category are found at 40 CFR 423.13(k). The 2020 Rule established revised BAT effluent limitations guidelines (ELGs) for bottom ash transport water and added subcategories to the bottom ash transport water guidelines for low utilization units and for those units that will cease combustion of coal by 2028. The specific set of limitations and compliance dates that apply to a particular facility are determined by which subcategory the facility falls within. To date, Entergy has not submitted a Notice of Planned Participation (NOPP) for Nelson Coal Unit 6 seeking to qualify in the subcategory for low utilization units or the subcategory for those units that will cease combustion of coal by 2028. Therefore, generally applicable limitations under 423.13(k)(1) have been applied in the renewal permit. In accordance with 40 CFR 423.13(k)(1)(i), except for those discharges to which 40 CFR 423.13(k)(2) applies (bottom ash purge water – see below), or when the bottom ash transport water is used in the FGD scrubber, there shall be no discharge of pollutants in bottom ash transport water generated on or after the compliance date.

EPA's ELGs for steam electric facilities state that dischargers subject to the effluent limitations found in 40 CFR 423.13(k)(1) for bottom ash transport water must meet the BAT effluent limitations by a date determined by the permitting authority that is as soon as possible beginning October 13, 2021, but no later than December 31,

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25 See https://www.epa.gov/eg/steam-electric-power-generating-effluent-guidelines-2023-proposed-rule

26 See 86 FR 41801 (August 3, 2021) and https://www.epa.gov/system/files/documents/2023-03/Prepublication%20FRN_OW_Steam%20Electric%20ELG_NPRM_03_07_2023_1.pdf (page 218 of 285)

27 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Fact Sheet Sections X, XIII, and XIV (EDMS Document No. 13216257, pages 99-103 and 111-118 of 172).

2025. The "as soon as possible" date means October 13, 2021, for bottom ash transport water unless the permitting authority establishes a later date after receiving site-relevant information from the discharger which reflects a consideration of the factors listed in 40 CFR 423.11(t). Entergy included information as justification for a request for a later compliance date to meet the new effluent limitations with the renewal application submitted on July 2, 2020.[28] Entergy submitted updated additional information on May 3, 2021 (dated April 28, 2021);[29] July 29, 2021 (letter dated July 23, 2021);[30] and by email on October 20, 2021.[31] Additionally, Entergy submitted a bottom ash system preliminary evaluation on November 18, 2021.[32]

Based on a review of the information submitted by Entergy, and EPA's proposed supplemental rulemaking,[33] LDEQ has determined that Nelson Coal Unit 6 shall meet the final BAT effluent limitations and requirements for bottom ash transport wastewater no later than December 31, 2025. This time period was provided in order for the facility to budget, design, and construct the treatment system to meet the final EPA Effluent Guidelines.

On and after December 31, 2025, the discharge of pollutants in bottom ash transport water (bottom ash purge water) from a properly installed, operated, and maintained bottom ash system is authorized under the conditions listed in 40 CFR 423.13(k)(2)(i)(A). In accordance with 40 CFR 423.13(k)(2)(i)(B), this permit establishes a site specific BAT limitation on the volume of bottom ash purge water that can be discharged. Using the available information to date, LDEQ has determined that the total volume of the discharge to the settling pond shall not exceed a 30-day rolling average of ten percent of the primary active wetted bottom ash system volume. The volume of daily discharges used to calculate the 30-day rolling average shall be calculated using measurements from flow monitors or pump logs. Based on a calculated bottom ash transport system volume of 711,059 gallons, the 30-day rolling average discharge shall not exceed 0.071 MGD.

The following changes have been made to the renewal permit in order to incorporate EPA's revisions to the ELGs for the steam electric power generating point source category (40 CFR Part 423):

- Outfall 003 – Bottom ash transport water: In accordance with 40 CFR 423.11(p), the term "transport water" means any wastewater that is used to

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28 LPDES permit renewal application dated July 2, 2020 (EDMS Document No. 12245198, pages 17-21 of 572).
29 See EDMS Document No. 12716268.
30 See EDMS Document No. 12838188.
31 See EDMS Document No. 12941297.
32 See EDMS Document No. 13002947.
33 https://www.epa.gov/system/files/documents/2023-03/Prepublication%20FRN_OW_Steam%20Electric%20ELG_NPRM_03_07_2023_1.pdf (page 218 of 285).

convey fly ash, bottom ash, or economizer ash from the ash collection or storage equipment, or boiler, and has direct contact with the ash. According to additional information received on May 3, 2021 (letter dated April 28, 2021),[34] the applicable subcategory for Nelson Coal Unit 6 for discharges of bottom ash transport water is "Bottom ash transport water – requirements for all existing plants not in the subcategories listed below."

a. In accordance with 40 CFR 423.13(k)(1)(i), there shall be no discharge of pollutants in bottom ash transport water generated on and after December 31, 2025. See Other Conditions, Paragraphs J, S, and T.[35]

b. A requirement to submit annual progress reports has been established in the permit. See Other Conditions, Paragraphs J and S.[36]

c. Bottom ash purge water has been added to the list of contributing wastewater sources at Outfall 003. In accordance with 40 CFR 423.11(cc), the term "bottom ash purge water" means any water being discharged subject to 40 CFR 423.13(k)(2)(i). The discharge of pollutants in bottom ash transport water from a properly installed, operated, and maintained bottom ash system is authorized under the conditions listed in 40 CFR 423.13(k)(2)(i)(A):

    1. To maintain system water balance when precipitation-related inflows are generated from storm events exceeding a 10-year storm event of 24-hour or longer duration (e.g., 30-day storm event) and cannot be managed by installed spares, redundancies, maintenance tanks, and other secondary bottom ash equipment; or

    2. To maintain system water balance when regular inflows from wastestreams other than bottom ash transport water exceed the ability of the bottom ash system to accept recycled water and segregating these other wastestreams is not feasible; or

    3. To maintain system water chemistry where installed equipment at the facility is unable to manage pH, corrosive substances, substances or conditions causing scaling, or fine particulates to below levels which impact system operation or maintenance; or

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34 See EDMS Document No. 12716268.

35 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Other Conditions, Paragraphs J, S, and T (EDMS Document No. 13216257, pages 38 and 41-44 of 172).

36 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Other Conditions, Paragraphs J and S (EDMS Document No. 13216257, pages 38 and 41-42 of 172).

4. To conduct maintenance not otherwise described above and not exempted from the definition of transport water in 40 CFR 423.13 (p), and when water volumes cannot be managed by installed spares, redundancies, maintenance tanks, and other secondary bottom ash system equipment.

This permit establishes a site specific BAT limitation on the amount of bottom ash purge water that can be discharged from the Nelson Coal Unit 6 plant (40 CFR 423.13(k)(2)(i)(B)). LDEQ has determined that the total volume of the discharge of bottom ash purge water to the settling pond shall not exceed a 30-day rolling average of ten percent of the primary active wetted bottom ash system volume. Additionally, a monthly average limitation for TSS[37] has been established at Outfalls 003 and 005 based on the steam electric ELGs for bottom ash purge water. See Other Conditions, Paragraphs J, T, U, and V of the permit.[38]

d. Based on public comments, a recordkeeping requirement has been added to the final permit. The permittee shall provide the following information with the monthly DMR for each discharge of bottom ash purge water during the monitoring period: (1) the date(s) for the purge water discharge; (2) the total volume of water discharged during each purge; and (3) the reason for the purge. See Effluent Limitations and Monitoring Requirements for Outfall 003, Narrative Requirement N-11.

e. Entergy submitted a bottom ash system preliminary evaluation on November 18, 2021.[39] A requirement to submit an initial certification statement for facilities seeking to discharge bottom ash purge water under 40 CFR 423.13(k)(2)(i) has been established in the permit as required by 40 CFR 423.19(c). This statement is required to include information such as the primary active wetted bottom ash system volume; a list of all potential discharges, the expected volume and frequency of each discharge; a list of wastewater treatment systems; and a narrative discussion of why the water cannot be managed within the system. LDEQ reserves the right to reopen and/or modify the permit based on this information. See Other Conditions, Paragraphs J and T of the permit.[40]

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37 TSS = total suspended solids

38 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Other Conditions, Paragraphs J, T, U, and V (EDMS Document No. 13216257, pages 38 and 43-44 of 172).

39 See EDMS Document No. 13002947.

40 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Other Conditions, Paragraphs J and T (EDMS Document No. 13216257, pages 38 and 43-44 of 172).

Combustion Residual Leachate (Outfall 003)

Discharges of combustion residual leachate are currently subject to ELGs promulgated by EPA for the steam electric point source category at 40 CFR 423.12(b)(11), Nov. 3, 2015 (see also 40 CFR 423.12(b)(3), Nov. 19, 1982). BPT effluent guidelines for combustion residual leachate were originally promulgated by EPA at 40 CFR 423.12(b)(3) - BPT effluent guidelines for discharges of low volume wastewaters. EPA's 2015 revisions to the steam electric guidelines removed combustion residual leachate from the low volume wastewaters category and established BPT effluent guidelines for combustion residual leachate at 40 CFR 423.12(b)(11) and BAT effluent guidelines at 40 CFR 423.13(l). However, EPA's 2015 final rule promulgating new effluent limitation guidelines for combustion residual leachate was vacated in-part and remanded by the U.S. Court of Appeals for the Fifth Circuit, in the decision *Southwestern Electric Power Company v. U.S. EPA*, 920 F.3d 999 (5th Cir. 2019). Therefore, the BPT effluent limitations guidelines (40 CFR 423.12) for these wastewaters are currently effective. According to information received from EPA dated January 25, 2022, 40 CFR 423.12(b)(11) is still in effect and applicable to combustion residual leachate.[41] The BPT effluent guidelines for combustion residual leachate are the same in the previous citation at 40 CFR 423.12(b)(3), Nov. 19, 1982, and in the 2015 revised citation at 40 CFR 423.12(b)(11), Nov. 3, 2015.

The following changes have been made to the renewal permit in order to incorporate EPA's revisions to the ELGs for the steam electric power generating point source category (40 CFR Part 423):

- Outfall 003 - Combustion residual leachate: In an application addendum dated July 23, 2021,[42] Entergy withdrew its prior request to establish a new internal outfall for the discharge of combustion residual leachate in the renewal permit. Rather, Entergy requested that compliance monitoring for leachate be conducted at Outfall 003 after commingling with other wastewaters and treatment in the Settling Pond. Discharges of combustion residual leachate are currently subject to ELGs promulgated by EPA for the steam electric point source category at 40 CFR 423.12(b)(11), November 3, 2015 (see also 40 CFR 423.2(b)(3), November 19, 1982). LDEQ granted the request to monitor combustion residual leachate at Outfall 003 because the effluent limitations at Outfall 003 are adequate for this discharge. Additionally, a monthly average limitation for TSS has been established at Outfalls 003 and 005[43] in the renewal permit based on the steam electric

41 See EDMS Document No. 13098138.
42 See EDMS Document No. 12838188.
43 Outfall 005 is for the intermittent discharge of overflow stormwater from the settling pond that normally discharges through

ELGs for combustion residual leachate. See Sections X and XIII of the Fact Sheet for the draft renewal permit for more information.[44] However, as stated above, combustion residual leachate discharges are subject to ELGs in the steam electric point source category. Therefore, a reopener clause has been included in the renewal permit to implement final EPA guidelines. The permit may be modified to include more stringent limitations, as applicable, and an internal outfall may be required.

- Combustion residual leachate: Additionally, according to an application addendum dated July 23, 2021,[45] and additional information received by email on October 8, 2021,[46] and November 5, 2021,[47] Entergy requested that it be allowed to transfer combustion residual leachate for reuse for the following purposes:

  a. Combustion residual leachate will be pumped into water trucks for use in dust control in the coal ash disposal landfill (CADL), subject to any necessary approvals under the associated solid waste permit; and
  b. To use in the bottom ash transport water system for make-up water, as needed.

LDEQ has granted these requests. LDEQ understands, based on the submitted information, that discharges from the coal ash disposal landfill and from the bottom ash handling system are routed to the settling pond for subsequent discharge through final Outfall 003. Discharges of coal ash disposal landfill runoff; coal ash disposal landfill combustion residual leachate; bottom ash transport water (generated before December 31, 2025); and bottom ash purge water are authorized for discharge at Outfall 003.[48] Please note, as stated above, combustion residual leachate discharges are subject to ELGs in the steam electric point source category. Therefore, a reopener clause has been included in the renewal permit to implement final EPA guidelines. The permit may be modified to include more stringent limitations, as applicable, and an internal outfall may be required.

Additionally, Entergy may, at its discretion, send the combustion residual leachate offsite for wastewater disposal.

Outfall 003 and previously monitored hydrostatic wastewater from Internal Outfall 303.

44 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Fact Sheet Sections X and XIII (EDMS Document No. 13216257, pages 99-103 and 111-118 of 172).

45 See EDMS Document No. 12838188.

46 See EDMS Document No. 12941297.

47 See EDMS Document No. 12977046

48 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Outfall 003 (EDMS Document No. 13216257, pages 18-21 of 172).

- Definitions for combustion residual leachate, bottom ash, transport water, bottom ash purge water, primary active wetted bottom ash system volume, and 30-day rolling average have been established in the permit in accordance with the most recent revision to 40 CFR Part 423. See Other Conditions, Paragraphs P, Q, R, T, U, and V of the permit.[49]

- Based on the Notice of Rulemaking issued by EPA August 3, 2021, a reopener clause has been included in the final permit. In accordance with Other Conditions, Paragraph S, the permit may be reopened to implement the final EPA Effluent Guidelines and requirements may added and/or removed as applicable.[50]

4. Outfall 001 – The monitoring frequency for Outfall 001, treated sanitary wastewater, has increased from once every six months to quarterly because the maximum flow is now 15,000 gallons per day.[51] The new monitoring frequency is based on the LPDES Class II Sanitary Discharge General Permit, LAG540000, effective August 1, 2018, for discharges of treated sanitary wastewater less than 25,000 gpd.[52]

   The statistical basis for the fecal coliform parameter has been changed from a monthly average to a monthly geometric average at the request of the Permit Compliance Unit. This change is consistent with the definition for monthly average presented in Section F of the Standard Conditions for LPDES Permits attached to the permit.

5. Outfalls 002 and 003 – Based on a review of the CORMIX[53] mixing zone study submitted by the permittee[54], the mixing zones for Nelson Coal Unit 6 Outfalls 002 and 003 and Roy S. Nelson Oil and Gas Generating Plant (AI 7893) Outfall 001 do not overlap. Therefore, the reasonable potential analysis (water quality screen) and the biomonitoring dilution series calculations were performed using the critical flow and the harmonic mean flow for the Houston River. See Fact Sheet Section IV, Section X, Appendix A and Appendix B.[55]

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49 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Other Conditions, Paragraphs P, Q, R, T, U, and V (EDMS Document No. 13216257, pages 40-44 of 172).

50 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Other Conditions, Paragraph S (EDMS Document No. 13216257, pages 41-42 of 172).

51 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Outfall 001 (EDMS Document No. 13216257, pages 11-12 of 172).

52 See EDMS Document No. 11261591.

53 CORMIX = Cornell Mixing Zone Expert System

54 See EDMS Document No. 12748046, pages 8-39 of 56).

55 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Fact Sheet Sections IV, X, Appendix A and Appendix B (EDMS Document No. 13216257).

6. Outfall 002 – Water quality-based limitations for total copper have been removed from Outfall 002 in the renewal permit. In accordance with LAC 33:IX.2707.L.2.a.ii.(a), LDEQ has determined that this is new information and that the removal of these limitations is appropriate.

7. Outfalls 003 and 004 – A permit requirement has been established as a result of a review of the analytical data provided by the facility for these outfalls which showed results that exceeded the minimum quantification level (MQL) for total aluminum (Outfalls 003 and 004) and total zinc (Outfall 004). An investigation of possible sources for these pollutants shall be conducted by the facility and submitted no later than two years from the effective date of the permit. The information gathered during the investigation may be used to reopen the existing permit and/or develop permit conditions/requirements for future permits (if needed). See Other Conditions, Paragraphs E and J of the permit.[56]

8. Entergy requested monitoring frequency reductions for the following parameters based on the facility's compliance record. Two years of data were reviewed and the composite average of this data was compared to the permit limit to determine the potential monitoring frequency reduction. The monitoring frequencies established in the renewal permit are listed below.

Outfall	Parameter	Current Monitoring Frequency	Requested Monitoring Frequency	Renewal Permit Monitoring Frequency
003	TSS	1/week	twice per month	weekly (*1)
003	Oil & Grease	1/month	quarterly	monthly (*1)
003	TOC[57]	1/month	semiannually	monthly (*1)

(*1) The monitoring frequencies for the parameters above will remain the same based on similar discharges at other similar facilities. Additionally, the renewal permit includes changes in operations at Outfall 003.

9. Internal Outfall 303 (hydrostatic test wastewater) – Minimum and maximum pH limitations have been established based on current guidance for similar discharges.

A Net TSS parameter has been added in order to better interface with electronic discharge monitoring report (DMR) reporting.[58]

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[56] See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Other Conditions, Paragraphs E and J (EDMS Document No. 13216257, pages 31 and 39 of 172).

[57] TOC = total organic carbon

[58] See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Internal Outfall 303 (EDMS Document No. 13216257, pages 22-23 of 172).

10. Language requiring the permittee to use the most sufficiently sensitive test method to prove compliance with the effluent limitations has been included in Other Conditions, Paragraph I of the permit.[59]

11. The definition for Low Volume Waste Sources has been updated in accordance with the most recent revision to 40 CFR Part 423. See Other Conditions, Paragraph M of the permit.[60]

12. Clean Water Act Section 316b Cooling Water Intake Structure (CWIS) Requirements – The Roy S. Nelson facility CWIS is shared by the Roy S. Nelson Electric Generating Plant (Coal Unit 6) and the Roy S. Nelson Oil & Gas Generating Plant (AI 7893, LDPES permit LA0005843). According to the application, both Nelson Coal Unit 6 and Nelson Oil & Gas share the same CWIS, source water makeup pumps, and piping systems. The 316(b) CWIS requirements for the Roy S. Nelson facility CWIS have been established under LPDES permit LA0005843.[61]

13. The STORET[62] code for oil and grease has changed to 00556.

14. Electronic Discharge Monitoring Reports (NetDMRs) – The DMR language in the Submittal Action and Narrative Requirements of this permit has been changed to reflect requirements for electronic NetDMR reporting. Reporting requirements for biomonitoring established in Other Conditions, Paragraph X have also been updated to reflect these changes. Additionally, Whole Effluent Toxicity (WET) Testing/Biomonitoring STORET codes have been changed for retest parameters. The retest parameters have been divided by species in order to integrate with NetDMR reporting. New STORET codes have been assigned for each species and retest. See Permit Requirements, pages 4-5 of 19 and Other Conditions Paragraph X, Section 4.b.iii.[63]

15. Best management practices (BMPs) for hydro-excavation/tunneling waters have been established in Other Conditions, Paragraph W of the permit.[64]

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59 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Other Conditions, Paragraph I (EDMS Document No. 13216257, pages 37-38 of 172).

60 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Other Conditions, Paragraph M (EDMS Document No. 13216257, page 40 of 172).

61 See LPDES Permit for Entergy Louisiana, LLC, Roy S. Nelson Oil & Gas Generating Station (EDMS Document No. 13189703, pages 82-83 and 98-101 of 137).

62 STORET= EPA storage and retrieval data warehouse

63 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6) (EDMS Document No. 13216257).

64 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Other Conditions, Paragraph W (EDMS Document No. 13216257, pages 44-45 of 172).

16. Entergy submitted a request to establish Limit of Quantification (LOQ) values in the renewal permit for BOD_5,[65] TSS, oil & grease, and TOC on January 26, 2022. The request was reviewed and has been granted. See Other Conditions, Paragraph Y of the permit.[66]

17. Whole Effluent Toxicity (WET) Testing – The monitoring frequency reduction option has been removed from the final permit based on the failures that have occurred after the biomonitoring recommendation date. See Other Conditions, Paragraph X of the permit.

II. PUBLIC NOTICE AND COMMENT

The LDEQ published a public notice which requested public comment and notified the public of a public hearing for Entergy's Nelson Coal Unit 6. The public notice was published on the LDEQ website on May 6, 2022.[67] Copies of the public notice were also mailed or e-mailed to individuals who have requested to be placed on the mailing list maintained by the Office of Environmental Services on May 5, 2022. The public notice required that comments and requests for public hearings must be received by 4:30 pm CST, Monday, June 20, 2022.

The water permit application and associated EAS, the draft water permit, additional information, and the fact sheet associated with the draft water permit were available for review at the LDEQ Public Records Center in Baton Rouge; at the Calcasieu Parish Library – Westlake Branch in Westlake and Sulphur Regional Branch in Sulphur; and on the LDEQ Public Participation & Permit Support Public Notices webpage. The information was also accessible to the public in the LDEQ's EDMS. The LDEQ received comments regarding the draft permit during the public comment period.[68]

The LDEQ conducted the public hearing on Thursday, June 16, 2022, at the City of Westlake Council Chambers, located at 1001 Mulberry Street, in Westlake, Louisiana. All public notice and public comment activities were conducted in accordance with Louisiana Water Quality Regulations.[69] The facility made an introductory presentation at the hearing. Additionally, two speakers from the public presented oral comments at the hearing.[70] The official public comment period ended June 20, 2022.

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65 BOD_5 = biochemical oxygen demand (5-day)

66 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Other Conditions, Paragraph Y (EDMS Document No. 13216257, page 59 of 172).

67 See EDMS Document No. 13270352.

68 See EDMS Document Nos. 13326206, 13345295, and 13399853.

69 See LAC 33:IX.3113, 3115, 3117, and 3119. See also La. R.S. 30:2074(A), La. R.S. 30:2016, and La. R.S. 30:2017.

70 Hearing Package for the public hearing held Thursday, June 16, 2022 for Entergy Louisiana, LLC/Roy S. Nelson (EDMS Document No. 13399853).

III. PUBLIC COMMENTS RESPONSE SUMMARY

A "Public Comments Response Summary" was prepared for all significant comments and is attached and made a part of this Basis for Decision.

IV. IT ANALYSIS

A. The Requirements

An "IT Analysis" consists of five requirements that both the permit applicant and the LDEQ consider during the permit application process.[71] Although the five requirements have been expressed as three requirements, the requirements remain basically the same whether stated as five or as three.[72] The "IT Analysis" considers whether:

1) the potential and real adverse environmental effects of the proposed project have been avoided to the maximum extent possible;
2) a cost benefit analysis of the environment impact costs balanced against the social and economic benefits of the project demonstrate that the latter outweighs the former; and
3) there are alternative projects or alternative sites or mitigating measures, which would offer more protection to the environment than the proposed project without unduly curtailing nonenvironmental benefits to the extent applicable.

Notably, the Louisiana Constitution does not establish environmental protection as an exclusive goal, but instead, requires a balancing process in which environmental costs and benefits must be given full and careful consideration along with economic, social, and other factors.[73]

B. The LDEQ's Analysis

The LDEQ utilized Entergy's responses to the "IT" Questions in the Environmental Assessment Statement (EAS)[74] submitted as part of the application submittal dated July 2, 2022, to conduct an "IT Analysis" during the permit application review process. While the LDEQ recognizes that the concepts of alternative sites, alternative projects, and mitigative measures are closely interrelated and overlap, each concept is addressed separately in this document for purposes of emphasis and clarity. However, the LDEQ stresses the interrelation of the three; for example, the choice of a particular site could involve mitigative factors and possibly alternative project considerations. Likewise, selection of an alternative project could invoke mitigative factors and impact site selection. The Louisiana First Circuit Court of

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71 See *Save Ourselves v. Envtl. Control Comm'n*, 452 So.2d 1152,1157 (La. 1984).
72 See *Matter of Rubicon, Inc.*, 95-0108, (La. App. 1 Cir. 2/14/96), 670 So.2d 475, 483.
73 See *Save Ourselves v. Envtl. Control Comm'n*, 452 So.2d 1152,1157 (La. 1984).
74 See EAS (EDMS Document No. 12561453, pages 22-26 of 40).

Appeal has also recognized this interrelationship and now considers the three requirements as one.[75]

Therefore, because of this interrelationship, LDEQ adopts any and all of its findings on all three factors under each of the specific designated areas –alternative sites (Section IV.B.1), alternative projects (Section IV.B.2), and mitigating measures (Section IV.B.3). Additionally, the assessment and findings set forth in Section IV.B.4 (Avoidance of Adverse Environmental Effects) also interrelate and have been considered relative to these factors.

1. **ALTERNATIVE SITES: Are there alternative sites, which would offer more protection to the environment than the proposed facility site without unduly curtailing nonenvironmental benefits?**

Because the Nelson Coal Unit 6 power plant is an existing facility that has been in operation at 3500 Houston River Road since 1982, the concept of alternative sites is not directly applicable to this permit action. Nevertheless, in considering the permit application, the LDEQ evaluated the issue of alternative sites with regard to the facility's operations.

As provided in the EAS, as accepted by the LDEQ, construction of the necessary infrastructure at another site would result in additional environmental impact at those locations. The facility has existing infrastructure; existing roads and other access routes; a reliable source of makeup water; existing treatment systems; existing transmission lines; and structural controls already in place at the present location.[76]

Nelson Coal Unit 6 is located near an SRA canal. Therefore, makeup water for the site is provided primarily by the SRA canal system. The SRA operates a water conveyance system consisting of unlined, open channel canals for the purpose of providing water to local industrial and irrigation uses in southwestern Louisiana. Additionally, the plant is able to minimize cooling water intake from the SRA by using recirculating cooling towers.[77] Existing treatment systems include an 11.5 acre Settling Pond that holds approximately 20 million gallons. The Settling Pond has greater than 24-hour retention prior to discharge through Outfall 003 and is designed to treat runoff associated with a 10-year, 24-hour rainfall event.[78] The site also includes an existing coal ash disposal landfill and a wastewater neutralization basin. Existing engineering and structural controls including secondary containment structures such as dikes, berms, retaining walls, curbing, culverts, leak detection systems, drip pans, and aboveground storage tanks help to minimize the potential for releases.[79]

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75 See *Matter of Rubicon, Inc.*, 95-0108 (La. App. 1 Cir. 2/14/96), 670 So. 2d 475, 483.
76 See EAS, EDMS Document No. 12245198, page 565 of 572
77 See EAS, EDMS Document No. 12245198, pages 551 and 554 of 572.
78 See EAS, EDMS Document No. 12245198, page 554 of 572.
79 See EAS, EDMS Document No. 12245198, page 568 of 572.

According to the EAS, portions of the site lie within the 100-year floodplain. Entergy has minimized floodplain impacts by minimizing concreted areas to maximize perviousness of the site. The site is vulnerable to hurricanes, but since it is located approximately 35 miles inland, the site is not subject to storm surge.[80] There are no impacts to wetlands from continuation of permitted activities, and no impacts to listed species or critical habitats are expected. Based on a Phase I Cultural Resources Survey conducted in November 2016, no cultural deposits were indicated at the site.[81]

The Nelson Coal Unit 6 site is zoned for industrial use. Land use in the surrounding area outside the Nelson Coal Unit 6 property boundary is mixed and consists of residential homes and large industrial facilities. The location is a semi-rural setting with several refinery/chemical facilities located approximately 1.5 miles to the south of the power plant site.[82]

These existing features offer greater protection to the environment than the adverse impacts associated with the development of a new site. Additionally, relocating is not an economically feasible alternative because the existing facility already has the needed infrastructure.[83]

CONCLUSION: For the foregoing reasons, the LDEQ finds there are no alternative sites, which would offer more protection to the environment than the existing site without unduly curtailing nonenvironmental benefits.

2. ALTERNATIVE PROJECTS: Are there alternative projects, which would offer more protection to the environment than the proposed facility without unduly curtailing nonenvironmental benefits?

This permit is a renewal permit for an existing facility that has been in operation since 1982 and its wastewater treatment methods have enabled it to consistently meet the effluent limitations in its permits. As provided in the EAS, and as accepted by LDEQ, the project as proposed assists Entergy in providing electricity to meet the needs of both industrial and residential customers. Recirculating cooling towers used in the cooling system at Coal Unit 6 help to minimize the amount of water withdrawn from the Sabine River Authority (SRA) Canal. Therefore, environmental impacts (impingement and entrainment) to aquatic species are reduced. Entergy does not utilize ash impoundments to manage its ash; this reduces the potential for adverse off-site impacts. Depending on the type of wastewater, and the outfall utilized, the wastewater at the facility is treated by activated sludge; sedimentation; disinfection; oil/water separation; grit removal; antifoaming (as required);

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80 See EAS, EDMS Document No. 12245198, pages 565-566 of 572.
81 See EAS, EDMS Document No. 12245198, page 566 of 572.
82 See EAS, EDMS Document No. 12245198, page 566 of 572.
83 See EAS, EDMS Document No. 12245198, page 565 of 572.

neutralization (when required); and filtration (when required).[84] The discharge of wastewater, in compliance with the permit, is not expected to have an adverse impact on the environment and there are notable costs and expenditures required to implement alterative wastewater handling and disposal methods. ;

CONCLUSION: For the aforementioned reasons, the LDEQ finds there are no alternative projects which would offer more protection to the environment than the proposed project without unduly curtailing nonenvironmental benefits.

3. MITIGATIVE MEASURES: Are there mitigating measures, which would offer more protection to the environment than the facility as proposed without unduly curtailing nonenvironmental benefits?

As described above, operations at Nelson Coal Unit 6 include the treatment of process wastewater and stormwater. Wastewater is collected, treated (as necessary), and monitored prior to discharge. Each outfall must be sampled at the point of discharge before mixing with other streams.

The LPDES permit establishes requirements for stormwater management to ensure that industrial facilities use proper design and engineering concepts to reduce the potential for stormwater contamination. With regard to stormwater management, as a mitigating measure, the permit requires the facility to implement a Stormwater Pollution Prevention Plan (SWP3) which includes requirements that the facility take the appropriate measures needed to minimize or reduce pollutants in its stormwater discharges.[85] Entergy also maintains Spill Prevention, Control and Countermeasures (SPCC) and Spill Prevention and Control (SPC) plans, as required. Stormwater pollution prevention measures and dry clean-up measures, such as booms and absorbents, are used at the facility in the event of a spill.[86] Structural controls used at the facility to minimize the potential for stormwater contamination include the use of concrete curbing, covered roof buildings, secondary containment dikes, drainage sumps, oil booms, and a Settling Pond.[87] According to the renewal application, non-structural measures employed by the facility include:

- Environmental Inspections;
- CCR[88] Fugitive Dust Control Plan;
- Emergency Response Plan;
- Employee safety and environmental training programs; and
- Equipment preventative maintenance and inspection programs.[89]

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[84] LPDES Draft Permit LA0059030, Fact Sheet and Rationale, Section VII (EDMS Document No. 13216257, pages 85-88 of 172).
[85] LPDES Draft Permit LA0059030 (EDMS Document No. 13216257, pages 28-30 of 172).
[86] See EAS, EDMS Document No. 12245198, page 568 of 572.
[87] LPDES permit renewal application dated July 2, 2020, (EDMS Document No. 12245198, page 31 of 572).
[88] CCR = coal combustion residuals
[89] LPDES permit renewal application dated July 2, 2020, (EDMS Document No. 12245198, page 30 of 572).

Additionally, best management practices (BMPs) for hydro-excavation activities[90] have been established in the permit. The permit requires the facility to implement a BMP plan which includes requirements for the facility to conduct the activities in such a way as to prevent stormwater and receiving waterbody contamination and to minimize sediment from entering the drainage system.[91]

The majority of other wastewater and stormwater discharges at Nelson Coal Unit 6 are treated by the Settling Pond. The majority of areas of the plant that are used to transfer or store significant materials such as fuels (coal, lignite, fuel oil #2), solid waste materials (ash), lubricants (turbine oil, lube oil), and chemicals (dust control, water/wastewater treatment) drain to the Settling Pond for treatment prior to subsequent discharge through Outfall 003. All of the oil tanks and most oil-filled equipment have secondary containment structures that drain to the oil/water separator that flows to the Settling Pond.[92] The Settling Pond has three areas in series: a grit chamber, a sedimentation retention chamber, and a final settling chamber. The grit chamber is concrete-lined and is designed to retain large, fast-settling solids. The sediment retention chamber is designed to collect settled solids contained in the water leaving the grit chamber. The largest portion of the Settling Pond is the final settling chamber. The final settling chamber reduces the wastewater flow to its lowest velocity, allowing fine particles to settle out of the water prior to discharge via Outfall 003. All sediments removed from the Settling Pond are disposed at the ash disposal landfill site.[93]

As stated in the Public Comments Response Summary for the 2020 LPDES permit modification,[94] during development of the facility's 2016 LPDES permit, it was determined that the technology-based limitations for total zinc established by the steam electric generating effluent guidelines (ELGs) had the potential to exceed water quality standards at Outfall 002. At that time, instead of discharging the water through Outfall 002, the facility reused the cooling tower blowdown in order to conserve water and in a cost saving effort to decrease the demand for surface water from the Sabine River Authority.[95] Because of this, this Office determined that water quality limitations were not necessary. However, to ensure that zinc standards would be met if a discharge occurred from the outfall, a daily maximum flow limitation of 0.127 MGD was established for Outfall 002. Due to operational changes, the facility found that it needed to have more flexibility with regard to their ability to discharge cooling tower blowdown. The flow limitation established in the 2016 permit was a constraint to the facility's operation. Entergy was issued an LPDES water permit modification, effective July 30, 2020, to remove the flow limitation and replace it with flow reporting requirements and appropriate water quality-based effluent

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90 Hydro-excavation activities consist of hydro-tunneling in non-contaminated soil using non-contaminated water sources.
91 LPDES Draft Permit LA0059030 (EDMS Document No. 13216257, pages 44-45 and 88 of 172).
92 LPDES permit renewal application dated July 2, 2020, (EDMS Document No. 12245198, page 31 of 572).
93 See EAS, EDMS Document No. 12245198, page 554 of 572.
94 See EDMS Document No. 12290508.
95 See EDMS Document No. 11567948.

limitations (WQBLs).[96] A reasonable potential analysis was conducted in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Standards, LDEQ, October 26, 2010 (water quality implementation plan).[97] Zinc and copper received WQBLs in the 2020 permit modification.[98] A reasonable potential analysis was also conducted for the 2022 draft renewal permit. Additional copper data was available during development of the draft renewal permit. Technology based effluent limitations from EPA's ELGs for the steam electric power generating point source category (40 CFR Part 423) and specific analytical data from the permittee's application[99] were screened against state water quality numerical standard based limits. As a result of the screen, zinc received water quality based limitations (WQBLs) at Outfall 002. The results do not show a reasonable potential to violate water quality standards for copper. Therefore, water quality-based limitations for total copper have been removed from Outfall 002 in the renewal permit. In accordance with LAC 33:IX.2707.L.2.a.ii.(a), LDEQ has determined that this is new information and that the removal of these limitations is appropriate. No parameters demonstrated reasonable potential to cause exceedance of water quality standards at Outfall 003; therefore, no WQBLs were required at Outfall 003. See Fact Sheet, Appendix B for calculations, results, and documentation.[100]

The Nelson Coal Unit 6 facility does not have fly ash and bottom ash ponds. This facility dry handles fly ash and conditions sluiced bottom ash by routing the ash to an ash conditioning system that produces a dry product. Fly ash is collected dry in hoppers, pneumatically transferred to storage silos, and subsequently sold or staged at the ash landfill which is located on site. According to the application, the ash disposal area is also regulated as an existing CCR[101] landfill under the CCR Rule and Entergy is required to publish groundwater monitoring data relating to that area for public availability. The Entergy CCR website for Nelson Coal Unit 6 is located at www.entergy-louisiana.com/ccr.[102]

Bottom Ash Transport Water (BATW)

As stated in Section I.D above, the renewal permit has been developed to incorporate EPA's revisions to the steam electric ELGs. Discharges of BATW at Nelson Coal Unit 6 are subject to more stringent BAT limitations included in the ELG revisions. However, EPA has initiated a new rulemaking which may result in more stringent limitations. The EPA Administrator, Michael S. Regan, signed a proposed rule and notice of public hearing on March 7, 2023,

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96 See EDMS Document No. 12290508.
97 See EDMS Document No. 7717002.
98 LPDES Fact Sheet and Rationale, Appendix B, Water Quality Calculations (EDMS Document No. 12090558, pages 46-61 of 71).
99 See EDMS Document Nos. 12794591 and 12838188.
100 LPDES Draft Permit LA0059030 Fact Sheet and Rationale, Appendix B (EDMS Document No. 13216257, pages 124-144 of 172).
101 CCR = coal combustion residuals
102 LPDES permit renewal application dated July 2, 2020 (EDMS Document No. 12245198, page 13 of 572).

and EPA is submitting it for publication in the Federal Register (FR).[103] As provided in the EAS and in the renewal application, Entergy requested a later compliance date to meet the final BAT limitations. This extra time will allow Entergy to design and implement modifications to the bottom ash handling system to meet the final ELGs. Entergy has made several recent improvements to the bottom ash handling system in the interim. These projects include additional curbing and containment, and wash out systems. Additionally, Entergy received a permit modification that will allow Nelson Coal Unit 6 to discharge more cooling tower blowdown through Outfall 002 and/or send the cooling tower blowdown to Outfall 003. This modification will result in less water in the bottom ash handling system. BATW that exits the bottom ash handling system is routed to the lined and permitted Settling Pond for treatment prior to discharge through Outfall 003.[104]

Mitigating measures, including the use of wastewater treatment, discharge monitoring, structural controls, BMPs, and operational procedures (including those outlined in the SWP3 and SPCC), will reduce the potential for discharge of pollutants. The permit effluent limitations and monitoring requirements, along with the BMP and SWP3 requirements, are expected to be protective of water quality in receiving streams. The LDEQ has determined that facility discharges in compliance with the requirements of this permit are not expected to result in a negative impact on the existing uses of the receiving streams.

CONCLUSION: For the foregoing reasons, the LDEQ finds there are no mitigating measures, which would offer more protection to the environment than the existing facility, without unduly curtailing nonenvironmental benefits.

4. AVOIDANCE OF ADVERSE ENVIRONMENTAL EFFECTS: Have the potential and real adverse environmental effects of the proposed facility been avoided to the maximum extent possible?

As part of the permitting process, potential and real adverse environmental impacts of pollutant discharges from the existing facility were assessed by the LDEQ to ensure that they are avoided to the maximum extent possible. The following paragraphs describe the assessment performed and the nature of the impact on each media. Further discussion related to wastewater discharges is addressed in Section B.3 – Mitigating Measures.

a. Air Emissions

Nelson Coal Unit 6's air emissions are currently permitted under the following active air permits:

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103 See https://www.epa.gov/eg/steam-electric-power-generating-effluent-guidelines-2023-proposed-rule

104 See EAS, EDMS Document No. 12245198, page 555 of 572. See LPDES permit renewal application dated July 2, 2020, (EDMS Document No. 12245198, pages 52-55 of 572).

- Title V Part 70 Operating Permit No. 0520-00014-V5, issued October 5, 2022;[105] and
- Acid Rain Permit No. 0520-00014-IV3, issued October 5, 2022. [106]

The permit requirements meet or exceed standards set by the EPA and the LDEQ to protect human health and the environment. The permits for the facility require that the emissions be controlled to meet or exceed the requirements of all applicable regulations and defined permit conditions.

b. Wastewater Discharges

The potential adverse environmental effects include the discharge of wastewater that does not meet the effluent limits in the LPDES permit, which would have the potential to cause exceedances of the water quality criteria. Additionally, discharges of wastewater or stormwater may have the potential to adversely impact endangered species. Therefore, the LDEQ considered the potential impact of the discharges on water quality criteria and endangered species in developing the renewal permit.

Endangered Species

Nelson Coal Unit 6 discharges to Subsegment 030806 of the Calcasieu River Basin. According to the 2016 Implementation Strategy for the Louisiana Department of Environmental Quality and the United States Fish and Wildlife Service (FWS) Memorandum of Understanding,[107] Subsegment 030806 of the Calcasieu Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not expected to have an adverse effect on any endangered or candidate species or the critical habitat.

Effluent Limitations

The potential adverse environmental effects include the discharge of wastewater that does not meet the effluent limits in the LPDES permit, which would have the potential to cause an exceedance of the water quality criteria.

As in all LPDES permits, a reopener clause has been included in the permit to allow for more stringent limitations or requirements should they be necessary in the future.

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105 See EDMS Document No. 13491611.
106 See EDMS Document No. 31491987.
107 See EDMS Document Nos. 10205450 (FWS Implementation Strategy) and 5043472 (MOU).

An outfall is a location where effluent is discharged into a receiving waterbody. The outfall is monitored according to the permit to verify compliance. Nelson Coal Unit 6 has six outfalls – five final outfalls: 001, 002, 003, 004, and 005; and one internal outfall: 303. The majority of pollutants in the process wastewater discharges from Outfalls 002, 003, and 005 are regulated under Federal Guidelines, 40 CFR Part 423, Steam Electric Power Generating Point Source Category.[108] The remaining pollutants were retained in the permit based upon best professional judgment (BPJ); the previous permit;[109] LDEQ stormwater guidance;[110] the LPDES Multi-Sector General Permit (MSGP) for Stormwater Discharges Associated with Industrial Activities (LAR050000);[111] the LPDES Hydrostatic Test Wastewater General Permit (LAG670000);[112] the LPDES Class II Sanitary General Permit (LAG540000);[113] and existing permits for steam electric generating facilities that protect against adverse environmental effects. Therefore, adverse changes to the water quality of the waterways due to the discharges are not likely.

The permit regulates the pollutants allowed to be discharged through the establishment of effluent limits and monitoring requirements for those same pollutants.[114] Compliance with the permit limitations and monitoring requirements will help to ensure that general and numerical water quality criteria are maintained and thus, the discharge is not expected to cause adverse environmental effects.

The outfalls are discussed below:

Outfall 001

Outfall 001 – the intermittent discharge of treated sanitary wastewater from the sewage package treatment plant that services the administration building, control room building, and heavy maintenance building restrooms

The permit contains effluent limits requirements for the parameters described below:

Flow – The LPDES permit, effective January 1, 2016, established reporting requirements for monthly average and daily maximum flow. Flow reporting requirements are consistent with LAC 33:IX.2707.I.1.b. These requirements are retained. However, the monitoring frequency has increased from semiannually to quarterly. The sample type is by estimate

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108 See https://www.govinfo.gov/content/pkg/CFR-2021-title40-vol31/pdf/CFR-2021-title40-vol31-part423.pdf
109 See EDMS Document Nos. 12290508 and 10023331.
110 See EDMS Document No. 6341434 (letter dated 06/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6)).
111 See EDMS Document No. 12959823; minor mod 1 EDMS Document No. 13036193; and minor mod 2 EDMS Document No. 13208733.
112 See EDMS Document No. 11039202.
113 See EDMS Document No. 11261591.
114 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), (EDMS Document No. 13216257, pages 11-30 of 172).

using best engineering judgement.[115] The monitoring frequency has increased because the 30-day maximum average flow has changed from 0.004 MGD to 0.015 MGD. The monitoring frequency is based on the LPDES Class II Sanitary General Permit LAG540000, effective August 1, 2018, for discharges of treated sanitary wastewater less than 25,000 gpd.[116]

BOD_5, TSS, Fecal Coliform, and pH – The LPDES permit, effective on January 1, 2016, established limitations for BOD_5, TSS, Fecal Coliform, and pH. These limitations have been retained. However, the monitoring frequency has increased from semiannually to quarterly using a grab sample. The monitoring frequency has increased because the 30-day maximum average flow has changed from 0.004 MGD to 0.015 MGD. Limitations are based on current guidance for similar discharges from other facilities and the LPDES Class II Sanitary General Permit LAG540000, effective August 1, 2018, for discharges of treated sanitary wastewater less than 25,000 gpd.[117]

Outfall 002

Outfall 002 - the intermittent discharge of cooling tower blowdown from the circular, induced air cooling tower that services Unit 6

The permit contains effluent limits requirements for the parameters described below:

Flow – A permit modification, effective on July 30, 2020, established reporting requirements for monthly average and daily maximum flow.[118] Flow reporting requirements are consistent with LAC 33:IX.2707.I.1.b.

Water temperature, degrees F – The LPDES permit, effective on January 1, 2016, established a daily maximum limitation of 97°F. A mixing zone temperature calculation was conducted, and the proposed temperature limit will not cause an impairment to the receiving stream. See Fact Sheet, Appendix B-5.[119] Based on similar permits and the mixing zone temperature calculation, this limitation is retained with the same monitoring frequency and sample type of daily by grab sample.

Free Available Chlorine (FAC) – The LPDES permit, effective on January 1, 2016, established monthly average and daily maximum FAC limitations based on 40 CFR 423.13 (d)(1) and 40 CFR 423.13 (m). These limitations are retained with a monitoring frequency of weekly by grab sample.

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115 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6). (EDMS Document No. 13216257, Narrative Requirement N-3, page 28 of 172).

116 See EDMS Document No. 11261591.

117 See EDMS Document No. 11261591.

118 See EDMS Document No. 12290508.

119 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Fact Sheet, Appendix B-5 (EDMS Document No. 13216257, page 145 of 172).

Total Chromium – The LPDES permit, effective on January 1, 2016, established monthly average and daily maximum Total Chromium limitations based on 40 CFR 423.13 (d)(1) and 40 CFR 423.13 (m). These limitations are retained with the same monitoring frequency of annually by grab sample.

Total Zinc - A permit modification, effective on July 30, 2020, established a monthly average water quality based limit (WQBL) of 330 µg/L and a daily maximum WQBL of 783 µg/L based on a reasonable potential analysis (water quality screen).[120] For the draft renewal permit, technology-based effluent limitations from EPA's ELGs for the steam electric power generating point source category (40 CFR Part 423) were screened against state water quality numerical standard based limits and no changes to the limits were needed. Therefore, the WQBL limitations have been retained with the same monitoring frequency of quarterly by grab sample. See Fact Sheet, Appendix B for calculations, results, and documentation.[121]

Total Copper - A permit modification, effective on July 30, 2020, established a monthly average water quality based limit (WQBL) of 47 µg/L and a daily maximum WQBL of 111 µg/L based on a reasonable potential analysis (water quality screen) using two data points.[122] Additional copper data was available during development of the draft renewal permit. A water quality screen was conducted using the analytical data submitted with the application[123] and the results do not show a reasonable potential to violate water quality standards for copper. Therefore, water quality-based limitations for total copper have been removed from Outfall 002 in the renewal permit. See Fact Sheet, Appendix B for calculations, results, and documentation.[124]

pH – The LPDES permit, effective on January 1, 2016, established minimum and maximum pH limitations based on 40 CFR 423.12(b)(1). A pH mixing evaluation was conducted and the proposed pH limits will not cause an impairment to the receiving stream (see Fact Sheet, Appendix B-7[125]). Therefore, these limitations are retained with the same monitoring frequency of weekly by grab sample.

Whole Effluent Chronic Toxicity Testing requirements for *Ceriodaphnia dubia* and *Pimephales promelas* have been established at Outfall 002 in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Quality

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120 See EDMS Document No. 12090558.

121 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Fact Sheet, Appendix B-5 (EDMS Document No. 13216257, pages 126-129 of 172).

122 See EDMS Document No. 12090558.

123 See EDMS Document No. 12794591.

124 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Fact Sheet, Appendix B-5 (EDMS Document No. 13216257, pages 126-129 of 172).

125 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Fact Sheet, Appendix B-7 (EDMS Document No. 13216257, pages 148-149 of 172).

Standards, LDEQ, October 26, 2010 (water quality implementation plan)[126] and are consistent with "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, EPA 821-R-02-013, October 2002."[127] Whole effluent toxicity (WET) testing (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 quarterly 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. Please note that WET testing failures occurred after the biomonitoring recommendation date. Therefore, the monitoring frequency reduction option has been removed in the final permit.

Outfall 003

Outfall 003 - the continuous discharge of coal pile runoff; coal ash disposal landfill runoff; coal handling area runoff; coal ash disposal landfill combustion residual leachate;[1] optional routing of cooling tower blowdown; cooling tower drift; miscellaneous non-process wastewaters; low volume wastewaters; bottom ash transport water (generated before December 31, 2025);[2] bottom ash purge water;[3] wastewater associated with demolition activities; groundwater infiltration; and previously monitored hydrostatic test wastewater from Internal Outfall 303

1 Coal ash disposal landfill (CADL) combustion residual leachate may be used for dust control in the CADL, subject to any necessary approvals under the associated solid waste permit. Additionally, combustion residual leachate may be used in the bottom ash handling system as makeup water, when needed. It is understood that discharges from the CADL and from the bottom ash handling system are routed to the settling pond for subsequent discharge through final Outfall 003. Combustion residual leachate discharges are subject to effluent limitations guidelines (ELGs) in the steam electric point source category. Therefore, a reopener clause has been included in the renewal permit to implement final EPA guidelines. The permit may be modified to include more stringent limitations, as applicable, and an internal outfall may be required.

2 Except for those discharges authorized below (bottom ash purge water), there shall be no discharge of pollutants in bottom ash transport water for wastewater generated on and after the effluent limitations guidelines (ELG) compliance date of December 31, 2025 (40 CFR 423.13(k)(1)(i)). This requirement only applies to bottom ash transport water generated on or after December 31, 2025. See Other Conditions, Paragraphs J, S, and T of the permit.

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126 EDMS Document No. 7717002.

127 https://www.epa.gov/sites/default/files/2015-08/documents/short-term-chronic-freshwater-wet-manual_2002.pdf

bottom ash transport water generated on or after December 31, 2025. See Other Conditions, Paragraphs J, S, and T of the permit.

3 On and after December 31, 2025, the discharge of pollutants in bottom ash transport water (bottom ash purge water) from a properly installed, operated, and maintained bottom ash system is authorized under the following conditions listed in 40 CFR 423.13(k)(2)(i)(A):

(1) To maintain system water balance when precipitation-related inflows are generated from storm events exceeding a 10-year storm event of 24-hour or longer duration (e.g., 30-day storm event) and cannot be managed by installed spares, redundancies, maintenance tanks, and other secondary bottom ash equipment; or
(2) To maintain system water balance when regular inflows from wastestreams other than bottom ash transport water exceed the ability of the bottom ash system to accept recycled water and segregating these other wastestreams is not feasible; or
(3) To maintain system water chemistry where installed equipment at the facility is unable to manage pH, corrosive substances, substances or conditions causing scaling, or fine particulates to below levels which impact system operation or maintenance; or
(4) To conduct maintenance not otherwise described above and not exempted from the definition of transport water in 40 CFR 423.13 (p), and when water volumes cannot be managed by installed spares, redundancies, maintenance tanks, and other secondary bottom ash system equipment.

The total volume that may be discharged for the above activities shall be reduced or eliminated to the extent achievable using control measures (including best management practices) that are technologically available and economically achievable in light of best industry practice.

In no event shall the total volume of the discharge to the settling pond exceed a 30-day rolling average of ten percent of the primary active wetted bottom ash system volume. The volume of daily discharges used to calculate the 30-day rolling average shall be calculated using measurements from flow monitors or pump logs. Based on a calculated bottom ash transport system volume of 711,059 gallons, the 30-day rolling average discharge shall not exceed 0.071 MGD. This requirement applies on and after December 31, 2025. The first day for which flow measurements must be taken to calculate the 30-day rolling average is also December 31, 2025. Report a no data indicator (NODI) code of 9 for conditional/not required on the DMR, for parameters that are not required to be sampled during the monitoring period.

Based on public comments, a recordkeeping requirement has been added to the final permit. The permittee shall provide the following information with the monthly DMR for each discharge of bottom ash purge water during the monitoring period: (1) the date(s) for the purge water discharge; (2) the total volume of water discharged during each purge; and (3) the reason for the purge. See Effluent Limitations and Monitoring Requirements for Outfall 003, Narrative Requirement N-11.

The permittee shall submit an initial certification statement in accordance with 40 CFR 423.19(c) by December 31, 2025. LDEQ reserves the right to reopen and/or modify the permit based on this information. See Other Conditions, Paragraph T of the permit.

Low volume wastewaters include, but are not limited to, plant drains; cooling tower basin cleaning wastewater; seal water; boiler and steam condensates, including steam traps; boiler blowdown; boiler drains and turbine drains; laboratory and sampling stream drains; turbine condenser water box drains; and maintenance wastewater.

Miscellaneous non-process wastewaters include, but are not limited to, firewater system water including testing and firefighting activities (without foam); emergency eye wash and shower stations testing and use; line flushing (potable water, including disinfection, or other non-process service lines); routine pavement, pad, building, and equipment washdown waters (without soaps and detergents); uncontaminated condensate from air conditioners, coolers, and other compressors and atmospheric condensate generated on the outside of storage tanks and equipment; drainage from the irrigation of vegetation and landscaping; uncontaminated groundwater, including pressure relief water from the groundwater supply wells or purged uncontaminated groundwater from monitoring wells; groundwater well maintenance wastewater; freeze protection water; vehicle rinsewater (no soaps and detergents); dust suppression water; noncontaminated water removed from electrical vaults; water from hydroblast excavation activities (hydro-tunneling in non-contaminated soil using non-contaminated water sources); and de minimis leaks from the potable water, cooling water, utility water, or firewater service distribution system network pipelines.

Wastewater associated with demolition activities includes, but is not limited to, dust suppression water; and equipment washwater (no soaps or detergents) and rainwater from decommissioned and cleaned units.

The permit contains effluent limits requirements for the parameters described below:

Flow – The LPDES permit, effective on January 1, 2016, established reporting requirements for monthly average and daily maximum flow. These requirements are being

retained with a continuous monitoring frequency using a recorder. Flow reporting requirements are consistent with LAC 33:IX.2707.I.1.b.

Flow (bottom ash purge water) – In accordance with (40 CFR 423.13(k)(2)(i)(B)), the renewal permit establishes a 30-day rolling average limitation of ten percent (10%) of the primary wetted bottom ash system volume for bottom ash purge water. The volume of daily discharges used to calculate the 30-day rolling average shall be calculated using measurements from flow monitors or pump logs. Based on a calculated bottom ash transport system volume of 711,059 gallons, the 30-day rolling average discharge shall not exceed 0.071 MGD. This requirement applies on and after December 31, 2025.

Temperature – The LPDES permit, effective on January 1, 2016, established a daily maximum limitation of 97°F. To be conservative, because cooling tower blowdown from Outfall 002 may be routed to the settling pond to further dissipate heat when ambient temperatures are high, a mixing zone temperature calculation was conducted using the 30-day maximum flow of 5.723 MGD for Outfall 003 plus the 1.6 MGD maximum flow of cooling tower blowdown and the proposed temperature limit will not cause an impairment to the receiving stream. Based on similar permits and the mixing zone temperature calculation, this limitation is retained with the same monitoring frequency and sample type of daily by grab sample. See Fact Sheet Appendix B-6.[128]

TOC – The LPDES permit, effective on January 1, 2016, established a daily maximum limitation of 50 mg/L in accordance with this Office's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6);[129] the LPDES Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities, LAR050000;[130] and the previous permit. This limitation is being retained with a monitoring frequency of monthly by grab sample. The permittee requested a monitoring frequency reduction for TOC. However, the current monitoring frequency is being retained based on discharges from similar facilities and because the renewal permit includes operational changes.

TSS – The LPDES permit, effective on January 1, 2016, established a reporting requirement for monthly average TSS and a TSS daily maximum limitation of 50 mg/L in accordance with 40 CFR 423.12(b)(9); 40 CFR 423.12(b)(12)* and the previous permit. The daily maximum limitation has been retained. The renewal permit establishes a monthly average TSS limitation of 30 mg/L in accordance with 40 CFR 423.12(b)(11), November 3, 2015 (see also 40 CFR 423.2(b)(3), November 19, 1982). The monitoring frequency shall be weekly by grab sample. The permittee requested a monitoring frequency reduction

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128 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Fact Sheet, Appendix B-6 (EDMS Document No. 13216257, page 146 of 172).

129 See EDMS Document No. 6341434.

130 See EDMS Document No. 12959823; minor mod 1 EDMS Document No. 13036193; and minor mod 2 EDMS Document No. 13208733.

for TSS. However, the current monitoring frequency is being retained based on discharges from similar facilities and because the renewal permit includes operational changes.

Oil & Grease – The LPDES permit, effective on January 1, 2016, established limitations for Oil & Grease in accordance with 40 CFR 423.12(b)(3); 40 CFR 423.12(b)(12);* and the previous permit. The limitations are consistent with 40 CFR 423.12(b)(11). These limitations are retained with a monitoring frequency of monthly by grab sample. The permittee requested a monitoring frequency reduction for Oil & Grease. However, the current monitoring frequency is being retained based on discharges from similar facilities and because the renewal permit includes operational changes.

pH – The LPDES permit, effective on January 1, 2016, established minimum and maximum pH limitations in accordance with 40 CFR 423.12(b)(1). A pH mixing evaluation was conducted and the proposed pH limits will not cause an impairment to the receiving stream (see Appendix B-8).[131] Therefore, these limitations are retained with the same monitoring frequency of weekly by grab sample.

* Please note, the steam electric effluent limitations guidelines were renumbered in the 2015 and 2020 revisions. 40 CFR 423.12(b)(11) in the 1982 steam electric effluent limitations guidelines is equivalent to 40 CFR 423.12(b)(12) in the latest revision.

Site Specific Considerations

Bottom Ash Transport Water, Bottom Ash Purge Water, and Combustion Residual Leachate: See Section I.D.3 above and the Fact Sheet for the draft renewal permit, Section XIII for information regarding compliance with EPA's most recent revisions to the effluent limitations guidelines and standards for the steam electric power generating point source category (40 CFR 423).[132]

Compliance Dates For The Effluent Limitations Guidelines And Standards For The Steam Electric Power Generating Point Source Category (40 CFR 423)

Based on a review of the information submitted by Entergy, and EPA's Notice of Rulemaking, LDEQ has determined that Nelson Coal Unit 6 shall meet the final BAT effluent limitations and requirements for bottom ash transport wastewater no later than December 31, 2025. This time period was provided in order for the facility to budget, design, and construct the treatment system to meet the final EPA Effluent Guidelines.

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131 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Fact Sheet, Appendix B-8 (EDMS Document No. 13216257, pages 151-152 of 172).

132 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Fact Sheet, Section XIII (EDMS Document No. 13216257, pages 111-117 of 172).

On and after December 31, 2025, the discharge of pollutants in bottom ash transport water (bottom ash purge water) from a properly installed, operated, and maintained bottom ash system is authorized under the conditions listed in 40 CFR 423.13(k)(2)(i)(A). In accordance with 40 CFR 423.13(k)(2)(i)(B), this permit establishes a site specific BAT limitation on the volume of bottom ash purge water that can be discharged. Using the available information to date, LDEQ has determined that the total volume of the discharge to the settling pond shall not exceed a 30-day rolling average of ten percent of the primary active wetted bottom ash system volume. The volume of daily discharges used to calculate the 30-day rolling average shall be calculated using measurements from flow monitors or pump logs. Based on a calculated bottom ash transport system volume of 711,059 gallons, the 30-day rolling average discharge shall not exceed 0.071 MGD.

Initial Certification Statement

The permittee shall submit an initial certification statement in accordance with 40 CFR 423.19(c) by December 31, 2025. LDEQ reserves the right to reopen and/or modify the permit based on this information. This statement is required to include information such as the primary active wetted bottom ash system volume; a list of all potential discharges, the expected volume and frequency of each discharge; a list of wastewater treatment systems; and a narrative discussion of why the water cannot be managed within the system. See Other Conditions, Paragraphs J and T of the permit.[133]

Based on the Notice of Rulemaking issued by EPA,[134] a reopener clause has been included in the final permit. In accordance with Other Conditions, Paragraph V, the permit may be reopened to implement the final EPA Effluent Guidelines and requirements may added and/or removed as applicable.

Bottom Ash Transport Water

On and after December 31, 2025, the discharge of pollutants in bottom ash transport water (bottom ash purge water) from a properly installed, operated, and maintained bottom ash system is authorized under the conditions listed above. LDEQ addresses toxicity associated with this category of wastewater by screening toxicity information provided in the application prior to discharge to waters of the state. In accordance with 40 CFR 122.44(d)(1)/LAC 33:IX.2707.D.1., the existing discharge was evaluated in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, October 26, 2010 (water quality implementation plan).[135] According to the water quality implementation plan, any parameter that demonstrates

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133 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Other Conditions, Paragraphs J and T (EDMS Document No. 13216257, pages 38 and 43-44 of 172).

134 See Federal Register/Volume 86, No. 146, Tuesday August 3, 2021, page 41801-41802. https://www.federalregister.gov/documents/2021/08/03/2021-16354/effluent-limitations-guidelines-and-standards-for-the-steam-electric-power-generating-point-source

135 EDMS Document No. 7717002.

reasonable potential to exceed water quality standards will have water quality based limitations established in the permit with an accompanying compliance schedule. Bottom ash transport water is discharged through Outfall 003 of the current permit. For Outfall 003, analytical results from the permittee's application were screened against state water quality numerical standard based limits. As a result of the screen, no parameters demonstrated reasonable potential to cause exceedance of water quality standards; therefore, no water quality based limitations were required. Calculations, results, and documentation are given in Fact Sheet, Appendix B.[136]

Fact Sheet Section XI, Water Quality Considerations, addresses 303(d)/TMDL status. Additional limitations were not required at Outfall 003 based on 303(d)/TMDL status.[137]

Therefore, LDEQ has determined that additional BAT technology based limitations and/or water quality based limitations are not necessary for bottom ash purge water at this time.

Additional Site Specific Considerations

A condition has been established in the permit which requires the facility to conduct an investigation of possible sources for Total Aluminum since this pollutant is present in the effluent discharged from this outfall in concentrations that exceed the Minimum Quantification Level (MQL) (2.5 µg/L) for this pollutant. See Other Conditions, Paragraphs E and J.[138]

As stated in LAC 33:IX.2705.A, "...the state administrative authority shall establish conditions on a case-by-case basis to provide for and assure compliance with all applicable requirements of the Clean Water Act (CWA) and regulations." Section 101(a) of the CWA defines its objective as, "...restoring and maintaining chemical, physical, and biological integrity of the Nation's Waters." Intermittent discharges, including stormwater, are not excluded from being subject to the CWA, state regulations, or state implementation procedures. The contributions from any discharge may have the potential to contribute to impairment of a receiving waterbody should those discharges continue unaddressed.

The Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, October 26, 2010, (Implementation Procedures)[139] requires that the Department implement MQLs that are currently being used by EPA Region VI for detection limits. It has been, and continues to be, the practice of the Department to use

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136 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Fact Sheet, Appendix B-8 (EDMS Document No. 13216257, pages 130-144 of 172).

137 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Fact Sheet, Section XI (EDMS Document No. 13216257, pages 109-111 of 172).

138 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Other Conditions (EDMS Document No. 13216257, pages 31 and 39 of 172).

139 See EDMS Document No. 7717002.

these values to determine the presence of a pollutant, as this is the lowest concentration at which a particular substance can be quantitatively measured.

Section 5 of the Implementation Procedures states, "DEQ will require water quality-based limits for pollutants that are present in the discharge as determined by the appropriate sampling or are involved in the manufacturing process." Although the receiving waterbody is not listed on the 303(d) list for Total Aluminum, the necessity for further investigation in order to prevent future listings is justified based on the presence of this pollutant in the discharge. The data collected will provide LDEQ with information that will be used to determine if further permit requirements are necessary in the future.

Internal Outfall 303

Internal Outfall 303 - the intermittent discharge of hydrostatic test wastewater from hydrostatic tests conducted on various pipes, tanks, vessels, and/or equipment

The permit contains effluent limits requirements for the parameters described below:

Flow – The LPDES permit, effective on January 1, 2016, established reporting requirements for monthly average and daily maximum flow. These requirements are retained with the same monitoring frequency of once per discharge event. The sample type is by estimate using best engineering judgement.[140] Flow reporting requirements and the monitoring frequency are consistent with LAC 33:IX.2707.I.1.b. and the LPDES Hydrostatic Test Wastewater Permit LAG670000, effective March 23, 2018.[141]

TSS, Oil & Grease, and TOC – The LPDES permit, effective on January 1, 2016, established daily maximum limitations for TSS, Oil & Grease, and TOC. These limitations are retained with the same monitoring frequency of once per discharge event by grab sample. Limitations and monitoring frequencies are based on the LPDES Hydrostatic Test Wastewater Permit LAG670000, effective March 23, 2018.[142]

Benzene, Total BTEX,[143] Total Lead – The current permit, effective on January 1, 2016, established daily maximum limitations for Benzene, Total BTEX, and Total Lead. These limitations are retained with the same monitoring frequency of once per discharge event by grab sample. Limitations and monitoring frequencies are based on the LPDES Hydrostatic Test Wastewater Permit LAG670000, effective March 23, 2018.[144]

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[140] See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6). (EDMS Document No. 13216257, Narrative Requirement N-3, page 28 of 172).
[141] See EDMS Document No. 11039202.
[142] See EDMS Document No. 11039202.
[143] BTEX = benzene, toluene, ethylbenzene, and total xylene (including ortho-, meta-, and para-xylene)
[144] See EDMS Document No. 11039202.

pH – This permit establishes minimum and maximum pH limitations. The monitoring frequency shall be once per discharge event by grab sample. The limitations and monitoring frequency are based on current guidance for similar discharges and the LPDES Hydrostatic Test Wastewater Permit LAG670000, effective March 23, 2018.[145]

Outfall 004

Outfall 004 – the intermittent discharge of stormwater runoff from the area east of the Turbine Building, Fan Alley, and Bowl Mill areas; de minimis amounts of miscellaneous non-process wastewaters; wastewater associated with demolition activities; and previously monitored hydrostatic wastewater from Internal Outfall 303

Miscellaneous non-process wastewaters include, but are not limited to, firewater system water including testing and firefighting activities (without foam); emergency eye wash and shower stations testing and use; line flushing (potable water, including disinfection, or other non-process service lines); routine pavement, pad, building, and equipment washdown waters (without soaps and detergents); uncontaminated condensate from air conditioners, coolers, and other compressors and atmospheric condensate generated on the outside of storage tanks and equipment; drainage from the irrigation of vegetation and landscaping; uncontaminated groundwater, including pressure relief water from the groundwater supply wells or purged uncontaminated groundwater from monitoring wells; groundwater well maintenance wastewater; freeze protection water; vehicle rinsewater (no soaps and detergents); dust suppression water; noncontaminated water removed from electrical vaults; water from hydroblast excavation activities (hydro-tunneling in non-contaminated soil using non-contaminated water sources); and de minimis leaks from the potable water, cooling water, utility water, or firewater service distribution system network pipelines.

Wastewater associated with demolition activities includes, but is not limited to, dust suppression water; and equipment washwater (no soaps or detergents) and rainwater from decommissioned and cleaned units.

The permit contains effluent limits requirements for the parameters described below:

Flow – The LPDES permit, effective on January 1, 2016, established reporting requirements for monthly average and daily maximum flow. These requirements are retained with a monitoring frequency of quarterly. The sample type is by estimate using best engineering judgement.[146] Flow reporting requirements are consistent with LAC 33:IX.2707.I.1.b.

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[145] See EDMS Document No. 11039202.

[146] See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), (EDMS Document No. 13216257, Narrative Requirement N-3, page 28 of 172).

TOC, Oil & Grease, and pH – The LPDES permit, effective on January 1, 2016, established effluent limitations for these parameters in accordance with this Office's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6);[147] the LPDES Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities, LAR050000;[148] and the previous permit. These limitations are retained in the renewal permit with a monitoring frequency of quarterly by grab sample.

Site Specific Considerations

A condition has been established in the permit which requires the facility to conduct an investigation of possible sources for Total Aluminum and Total Zinc since these pollutants are present in the effluent discharged from this outfall in concentrations that exceed the MQL (2.5 µg/L) for Total Aluminum and MQL (20 µg/L) for Total Zinc. See Other Conditions, Paragraphs E and J of the permit.

As stated in LAC 33:IX.2705.A, "...the state administrative authority shall establish conditions on a case-by-case basis to provide for and assure compliance with all applicable requirements of the Clean Water Act (CWA) and regulations." Section 101(a) of the CWA defines its objective as, "...restoring and maintaining chemical, physical, and biological integrity of the Nation's Waters." Intermittent discharges, including stormwater, are not excluded from being subject to the CWA, state regulations, or state implementation procedures. The contributions from any discharge may have the potential to contribute to impairment of a receiving waterbody should these discharges continue unaddressed.

The Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, October 26, 2010, (Implementation Procedures)[149] requires that this Office implement MQLs that are currently being used by EPA Region VI for detection limits. It has been, and continues to be, the practice of this Office to use these values to determine the presence of a pollutant, as this is the lowest concentration at which a particular substance can be quantitatively measured.

Section 5 of the Implementation Procedures states, "DEQ will require water quality-based limits for pollutants that are present in the discharge as determined by the appropriate sampling or are involved in the manufacturing process." Although the receiving waterbody is not listed on the 303(d) list for Total Aluminum or Total Zinc, the necessity for further investigation in order to prevent future listings is justified based on the presence of this pollutant in the discharge. The data collected will provide LDEQ with information that will be used to determine if further permit requirements are necessary in the future.

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147 See EDMS Document No. 6341434.
148 See EDMS Document No. 12959823; minor mod 1 EDMS Document No. 13036193; and minor mod 2 EDMS Document No. 13208733.
149 See EDMS Document No. 7717002.

Outfall 005

Outfall 005 - the intermittent discharge of overflow stormwater from the settling pond that normally discharges through Outfall 003 and previously monitored hydrostatic wastewater from Internal Outfall 303

The permit contains effluent limits requirements for the parameters described below:

Flow – The LPDES permit, effective on January 1, 2016, established reporting requirements for monthly average and daily maximum flow. These requirements are being retained with a monitoring frequency of monthly. The sample type is by estimate using best engineering judgement.[150] Flow reporting requirements are consistent with LAC 33:IX.2707.I.1.b.

TOC – The LPDES permit, effective on January 1, 2016, established a daily maximum limitation of 50 mg/L in accordance with this Office's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6)[151] and the LPDES Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities, LAR050000.[152] This limitation is being retained with a monitoring frequency of monthly by grab sample.

TSS – The LPDES permit, effective on January 1, 2016, established a reporting requirement for monthly average TSS based on requirements established for Outfall 003 of this permit and a TSS daily maximum limitation of 50 mg/L in accordance with 40 CFR 423.12(b)(9) and 40 CFR 423.12(b)(12).* The daily maximum limitation has been retained. The renewal permit establishes a monthly average TSS limitation of 30 mg/L in accordance with 40 CFR 423.12(b)(11), November 3, 2015 (see also 40 CFR 423.2(b)(3), November 19, 1982). The monitoring frequency shall be weekly by grab sample.

Oil & Grease – The LPDES permit, effective on January 1, 2016, established limitations for Oil & Grease in accordance with 40 CFR 423.12(b)(3) and 40 CFR 423.12(b)(12).* These limitations are retained with a monitoring frequency of monthly by grab sample. The limitations are consistent with 40 CFR 423.12(b)(11). These limitations are retained with a monitoring frequency of monthly by grab sample.

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150 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), (EDMS Document No. 13216257, Narrative Requirement N-3, page 28 of 172).

151 See EDMS Document No. 6341434.

152 See EDMS Document No. 12959823; minor mod 1 EDMS Document No. 13036193; and minor mod 2 EDMS Document No. 13208733.

pH – The LPDES permit, effective on January 1, 2016, established minimum and maximum pH limitations in accordance with 40 CFR 423.12(b)(1). These limits are retained with a monitoring frequency of weekly by grab sample.

* Please note, the steam electric effluent limitations guidelines were renumbered in the 2015 and 2020 revisions. 40 CFR 423.12(b)(11) in the 1982 steam electric effluent limitations guidelines is equivalent to 40 CFR 423.12(b)(12) in the latest revision.

Storm Water Pollution Prevention Plan (Swp3) Requirement

In accordance with LAC 33:IX.2707.I.3 and 4, a permit condition is included 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. For first time permit issuance, the Narrative Requirements require an SWP3 within six (6) months of the effective date of the final permit. For renewal permit issuance, the permit condition requires that the SWP3 be reviewed and updated, if necessary, within six (6) months of the effective date of the final permit. If the permittee maintains other plans that contain duplicative information, those plans could be incorporated by reference to the SWP3. Examples of these types of plans include, but are not limited to: Spill Prevention Control and Countermeasures Plan, Best Management Plan, Response Plans, etc. The conditions will be found in the permit. Including BMP controls in the form of a SWP3 is consistent with other LPDES and EPA permits regulating similar discharges of stormwater associated with industrial activity, as defined in LAC 33:IX.2511.B.14.

Clean Water Act 316(b) Cooling Water Intake Structure (CWIS) Requirements

Section 316(b) of the Clean Water Act (CWA) applies to point source dischargers that need an LPDES permit and use a cooling water intake structure (CWIS) to withdraw surface water from waters of the United States for cooling purposes. EPA's final CWA Section 316(b) Rule for CWIS at Existing Facilities (rule) became effective on October 14, 2014.[153] The rule establishes best technology available (BTA) standards at 40 CFR Part 125, Subpart J for minimizing adverse environmental impacts to reduce impingement mortality and entrainment of aquatic organisms at existing facilities.

Nelson Coal Unit 6 uses water withdrawn from a Sabine River Authority Canal for use in the plant's cooling water system. The SRA canal system, which is owned and operated by the SRA, is a water conveyance system consisting of unlined, open channel canals for the purpose of providing water to local industrial and irrigation uses in southwestern Louisiana. The water comes through a series of canals operated and maintained by the SRA, and enters an 8.22 acre holding pond (SRA Pond) that services the site. The Roy S. Nelson facility CWIS is shared by Roy S. Nelson Electric Generating Plant (Coal Unit 6) and the Roy S.

[153] https://www.govinfo.gov/content/pkg/CFR-2021-title40-vol31/pdf/CFR-2021-title40-vol31-part423.pdf

Nelson Oil & Gas Generating Plant (AI 7893, LDPES permit LA0005843). The CWIS 12.48 MGD design intake flow (DIF) is based on two pumps operating (a third pump is periodically alternated into service). The actual intake flow (AIF) for Nelson facility Units 1, 2, and 6 is 7.36 MGD. According to the application, the intake water is used primarily for cooling purposes. The Roy S. Nelson CWIS has a design capacity of more than two million gallons per day (MGD) and more than 25% of the actual intake flow (AIF) is used for cooling water. Therefore, the Roy S. Nelson facility is subject to the categorical requirements of the 316(b) Rule for Existing Facilities.

Entergy submitted 316(b) application information in accordance with 40 CFR 122.21(r) on July 2, 2020.[154] The Roy S. Nelson facility currently operates three steam electric generating units (Coal Unit 6 and Roy S. Nelson Oil & Gas Generating Plant Units 1-2) that use recirculating cooling tower systems. According to the application, both Nelson Coal and Nelson Oil & Gas share the same CWIS, source water makeup pumps, and piping systems. Clean Water Act Section 316(b) requirements have been established in LPDES permit LA0005843 for the Roy S. Nelson facility intake.[155]

Compliance Dates For The Revised Effluent Limitations Guidelines (ELGs) And Standards For The Steam Electric Power Generating Point Source Category

The renewal permit has been developed to incorporate EPA's revisions to the effluent limitation guidelines (ELGs) for the steam electric power generating point source category which were published in the Federal Register in November 2015, and amended by the 2020 Steam Electric Reconsideration Rule, which was published in the Federal Register in October 2020. In the 2015 revisions, the EPA established best available technology economically achievable (BAT) effluent limitations and standards for various wastewaters at steam electric plants: fly ash transport water, bottom ash transport water, flue gas mercury control (FGMC) wastewater, flue gas desulfurization (FGD) wastewater, gasification wastewater, and combustion residual leachate. The 2020 rule revised the ELGs for FGD wastewater and bottom ash transport water and created additional subcategories for these two wastewaters. There were no changes to the other wastewaters. The draft LPDES renewal permit LA0059030 authorizes the discharge of bottom ash transport water (generated before December 31, 2025); bottom ash purge water; and combustion residual leachate from the Roy S. Nelson Electric Generating Plant (Coal Unit 6).

Additionally, the EPA Administrator, Michael S. Regan, signed a proposed rule and notice of public hearing on March 7, 2023, and EPA is submitting it for publication in the Federal Register (FR).[156] EPA expects permitting authorities to continue to implement the current

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[154] See EDMS Document No. 12245198, Appendix E.

[155] See LPDES Permit for Entergy Louisiana, LLC, Roy S. Nelson Oil & Gas Generating Station (EDMS Document No. 13189703, pages 82-83 and 98-101 of 137).

[156] See https://www.epa.gov/eg/steam-electric-power-generating-effluent-guidelines-2023-proposed-rule

regulations while the Agency undertakes a new rulemaking, and LDEQ has done so, implementing the steam electric facility ELGs into this permit.[157]

Based on EPA's proposed supplemental rulemaking, a reopener clause has been included in the renewal permit. In accordance with Other Conditions, Paragraph S, the permit may be reopened to implement the final EPA Effluent Guidelines and requirements may added and/or removed as applicable.

1. Combustion Residual Leachate (Outfall 003)

   Combustion residual leachate will discharge through Outfall 003. Discharges of combustion residual leachate are currently subject to ELGs promulgated by EPA for the steam electric point source category at 40 CFR 423.12(b)(11), Nov. 3, 2015 (see also 40 CFR 423.12(b)(3), Nov. 19, 1982). Effluent limitations are effective on the effective date of the permit. See Section I.D.

2. Bottom Ash Transport Water (BATW) and Bottom Ash Purge Water (Outfall 003)

   According to the application, Nelson Coal Unit 6 currently operates a wet sluice water system (bottom ash handling system). This system quenches hot ash and transports cooled bottom ash to an engineered cyclone filter (hydrobin) where the majority of the water is recovered and recycled back into the bottom ash handling system. BATW is regulated under EPA's steam electric ELGs (40 CFR 423). Economizer and fly ash are also generated at the facility but are recovered dry in the combustion section of the boiler.

   EPA's effluent limitations guidelines for BATW in the steam electric category are found at 40 CFR 423.13(k). The 2020 Rule established revised BAT effluent limitations guidelines (ELGs) for BATW and added subcategories to the BATW guidelines for low utilization units and for those units that will cease combustion of coal by 2028. The specific set of limitations and compliance dates that apply to a particular facility are determined by which subcategory the facility falls within. To date, Entergy has not submitted a Notice of Planned Participation (NOPP) seeking to qualify in the subcategory for low utilization units or the subcategory for those units that will cease combustion of coal by 2028. Therefore, generally applicable limitations under 423.13(k)(1) have been applied in the renewal permit. In accordance with 40 CFR 423.13(k)(1)(i), except for those discharges to which 40 CFR 423.13(k)(2) applies (bottom ash purge water), or when the bottom ash transport water is used in the FGD scrubber, there shall be no discharge of pollutants in bottom ash transport water generated on or after the compliance date. Additionally, the permitting authority is

[157] See 86 FR 41801 (August 3, 2021) and https://www.epa.gov/system/files/documents/2023-03/Prepublication%20FRN_OW_Steam%20Electric%20ELG_NPRM_03_07_2023_1.pdf (page 218 of 285).

required to establish a site specific BAT limitation on the volume of bottom ash purge water that can be discharged (40 CFR 423.13(k)(2)(i)).

EPA's ELGs for steam electric facilities state that dischargers subject to the effluent limitations found in 40 CFR 423.13(k)(1) for bottom ash transport water must meet the BAT effluent limitations by a date determined by the permitting authority that is as soon as possible beginning October 13, 2021, but no later than December 31, 2025. The "as soon as possible" date means October 13, 2021, for bottom ash transport water unless the permitting authority establishes a later date after receiving site-relevant information from the discharger which reflects a consideration of the factors listed in 40 CFR 423.11(t):

(1) Time to expeditiously plan (including to raise capital), design, procure, and install equipment to comply with the requirements of this part.

(2) Changes being made or planned at the plant in response to:

(i) New source performance standards for greenhouse gases from new fossil fuel-fired electric generating units, under sections 111, 301, 302, and 307(d)(1)(C) of the Clean Air Act, as amended, 42 U.S.C. 7411, 7601, 7602, and 7607(d)(1)(C);

(ii) Emission guidelines for greenhouse gases from existing fossil fuel-fired electric generating units, under sections 111, 301, 302, and 307(d) of the Clean Air Act, as amended, 42 U.S.C. 7411, 7601, 7602, and 7607(d); or

(iii) Regulations that address the disposal of coal combustion residuals as solid waste under sections 1006(b), 1008(a), 2002(a), 3001, 4004, and 4005(a) of the Solid Waste Disposal Act of 1970; as amended by the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. 6906(b), 6907(a), 6912(a), 6944, and 6945(a).

(3) For FGD wastewater requirements only, an initial commissioning period for the treatment system to optimize the installed equipment.

(4) Other factors as appropriate.

Entergy included information as justification for a request for a later compliance date to meet the new effluent limitations with the renewal application submitted on July 2, 2020. Entergy submitted information regarding uncertainty due to proposed revisions to the BAT limitations for bottom ash transport water; a pending LPDES permit

modification; and cost and time requirements for retrofitting or replacing the current bottom ash transport water system. Please note, EPA proposed revisions to the 2015 BAT requirements for flue gas desulfurization (FGD) wastewater and BATW on November 22, 2019. When the renewal application for Nelson Coal Unit 6 was submitted on July 2, 2020, the final 2020 rule had not been published. Additionally, a final determination for a draft LPDES permit modification rerouting cooling tower blowdown to Outfall 002 rather than through the bottom ash handling system was still pending. The LPDES permit modification to re-route cooling tower blowdown to Outfall 002 was approved with an effective date of July 30, 2020.[158] Additionally, the final 2020 revisions to the BAT limitations for FGD wastewater and BATW were published in the federal register on October 13, 2020, and became effective on December 14, 2020.[159]

LDEQ sent a letter to Entergy dated November 6, 2020 (EDMS Document No. 12439792), requesting additional information for the renewal application regarding the applicability of the 2020 revisions to the Nelson Coal Unit 6 facility. Entergy submitted a response letter to LDEQ dated December 29, 2020 (EDMS Document No. 12516391), requesting an extension to submit the required information. The December 29, 2020, letter detailed the steps Entergy is taking to evaluate the bottom ash handling system and determine what types of modification would be required; what types and volumes of purge water might be expected; and the timeline required to design and implement the changes. The letter also noted that a series of severe weather events in the second half of 2020 (Hurricanes Laura and Delta and Tropical Storm Beta) impacted Westlake, Louisiana and the Entergy electrical grid. Extensive repair work to the electrical grid and Nelson Coal Unit 6 was required. These events delayed the evaluation process.

Entergy submitted updated additional information on May 3, 2021 (dated April 28, 2021; EDMS Document No. 12716268); July 29, 2021 (letter dated July 23, 2021; EDMS Document No. 12838188) and by email on October 20, 2021 (EDMS Document No. 12941297). Additionally, Entergy submitted a bottom ash system preliminary evaluation on November 18, 2021 (EDMS Document No. 13002947). According to the information, Nelson Coal Unit 6 has a high recycle rate bottom ash system that does not function as a zero-discharge system. Following the diversion of the cooling tower blowdown, the bottom ash system is able to reuse and recycle bottom ash sluice water and other incoming streams under most conditions. However, intermittent discharges can occur during the following conditions, which are listed as allowable sources of purge water in 40 CFR 423.13(k)(2)(i)(A)(1-4): extreme rain events; maintenance events (e.g., the potential draining of piping and equipment or the entire system for repair, reconditioning, and inspection); as a result of regular inflows of non-bottom ash transport wastewaters (e.g., boiler blowdown); and associated with maintaining water

[158] See EDMS Document No. 12290508.
[159] https://www.epa.gov/eg/2020-steam-electric-reconsideration-rule

chemistry and safe operation of the boiler. Water that is not recovered and sent back to the bottom ash handling system flows to the Settling Pond for treatment and discharge through Outfall 003 to the Houston River. The letter states that even with the flow reduction achieved by segregating cooling tower blowdown from the bottom ash system, Entergy believes that a purge water allowance of ten percent (10%) 30-day rolling average of the primary active wetted bottom ash system volume is necessary and appropriate to accommodate authorized discharges of gravity treated and non-treated effluent from the bottom ash handling system. Entergy's evaluation of the current bottom ash transport water system remains ongoing. Further modifications to the high recycle system will need to be implemented to minimize the need to purge water out of the system to the Settling Pond. These modifications may include potential flow diversions, operational adjustments, and system modifications to maximize recirculation without impacting operations and maintenance. Entergy stated that they will need additional time (until the December 31, 2025 ELG deadline) to have adequate time to plan and design potential projects; budget; and coordinate necessary installation and implementation time.

LDEQ reviewed the information submitted by Entergy, considering the factors listed in 40 CFR 423.11(t). Entergy did not submit any information regarding air emissions or solid waste regulations. Therefore, Factor (2) was not considered. Nelson Coal Unit 6 does not discharge FGD wastewater. Therefore, Factor (3) was not considered. It was determined that Factors (1) and (4) were applicable to the Nelson Coal Unit 6 facility. These factors require LDEQ to consider the time required by the facility to expeditiously plan, design, procure, and install equipment; and other factors as appropriate. The renewal permit includes EPA's BAT effluent limitations and standards for bottom ash transport water as established in the 2020 Final Revised Rule. However, EPA published the final rule in the federal register on October 13, 2020, and the rule became effective on December 14, 2020. As noted above, this "other factor" affects the time to design, install, and optimize the treatment equipment. Further, the severe weather events of 2020 required Entergy to make extensive repairs to the grid and Coal Unit 6. Therefore, evaluation of treatment systems; purge water types and volumes; and a timeline were delayed. Additionally, the EPA Administrator, Michael S. Regan, signed a proposed rule and notice of public hearing on March 7, 2023, and EPA is submitting it for publication in the Federal Register (FR).[160] The final rule could result in more stringent limitations.

Bottom Ash Transport Water (Outfall 003)

Based on a review of the information submitted by Entergy, and EPA's proposed supplemental rulemaking, LDEQ has determined that Nelson Coal Unit 6 shall meet the final BAT effluent limitations and requirements for bottom ash transport wastewater no later than December 31, 2025. This time period was provided in order

[160] See https://www.epa.gov/eg/steam-electric-power-generating-effluent-guidelines-2023-proposed-rule

for the facility to budget, design, and construct the treatment system to meet the final EPA Effluent Guidelines.

Site-Specific Limitation for Bottom Ash Purge Water (Outfall 003)

On and after December 31, 2025, the discharge of pollutants in bottom ash transport water (bottom ash purge water) from a properly installed, operated, and maintained bottom ash system is authorized under the conditions listed in 40 CFR 423.13(k)(2)(i)(A).[161]

The total volume that may be discharged for the activities listed in 40 CFR 423.13(k)(2)(i)(A) shall be reduced or eliminated to the extent achievable using control measures (including best management practices) that are technologically available and economically achievable in light of best industry practice.

In accordance with 40 CFR 423.13(k)(2)(i), this permit establishes a site specific BAT limitation on the volume of bottom ash purge water that can be discharged. Using the available information to date, LDEQ has determined that the total volume of the discharge to the settling pond shall not exceed a 30-day rolling average of ten percent of the primary active wetted bottom ash system volume. The volume of daily discharges used to calculate the 30-day rolling average shall be calculated using measurements from flow monitors or pump logs. Based on a calculated bottom ash transport system volume of 711,059 gallons, the 30-day rolling average discharge shall not exceed 0.071 MGD.

A recordkeeping requirement has been added to the final permit. The permittee shall provide the following information with the monthly DMR for each discharge of bottom ash purge water during the monitoring period: (1) the date(s) for the purge water discharge; (2) the total volume of water discharged during each purge; and (3) the reason for the purge. See Effluent Limitations and Monitoring Requirements for Outfall 003, Narrative Requirement N-11.

Initial Certification Statement

The permittee shall submit an initial certification statement in accordance with 40 CFR 423.19(c) by December 31, 2025. LDEQ reserves the right to reopen and/or modify the permit based on this information. This statement is required to include information such as the primary active wetted bottom ash system volume; a list of all potential discharges, the expected volume and frequency of each discharge; a list of wastewater treatment systems; and a narrative discussion of why the water cannot be managed within the system. See Other Conditions, Paragraphs J and T of the permit.[162]

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[161] See Section I.D.3, Outfall 003 and Section IV.B.4.b, Outfall 003.

[162] See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Other

Additionally, a monthly average limitation for TSS[163] has been established at Outfalls 003 and 005 based on the steam electric ELGs for bottom ash purge water. See Other Conditions, Paragraphs J, T, U, and V of the permit.[164]

3. Requirements for Facilities Seeking to Transfer Between Applicable Limitations in a Permit Under 40 CFR 423.13(o)

The 2020 rule includes provisions allowing for an existing plant with a permit to transfer between subcategories, or between a subcategory and the voluntary incentives program (VIP) for FGD wastewater, **where the permit includes alternative limits and allows this to occur.** Under the final rule, utilities have options to transfer between applicable permit limitations under certain circumstances as outlined in 40 CFR 423.13(o). The rule establishes deadlines by which such transfers must occur.

No requests for alternative limits have been received. Therefore, no transfer options have been established in the renewal permit. A requirement has been established in the renewal permit stating that should the permittee decide to change compliance options, a permit modification shall be required. All applicable information must be submitted with the modification request. Additionally, compliance must be achieved by the final compliance date for the chosen pathway. See Other Conditions, Paragraphs J and S.

4. Consideration of Remand of Sections of the Steam Electric Rule

On April 12, 2019, the Fifth Circuit Court of Appeals remanded sections of the November 2015 BAT effluent limitations for combustion residual leachate and legacy wastewater back to EPA for reconsideration.[165] Therefore, the best practicable control technology currently available (BPT) effluent limitations guidelines (40 CFR 423.12) for these wastewaters are currently effective. Legacy wastewater is wastewater from five of the streams (FGD, fly ash, bottom ash, FGMC, and gasification wastewater) that is generated prior to the compliance date listed in the permit for the stricter BAT standards. LPDES permit LA0059030 authorizes the discharge of combustion residual leachate and legacy bottom ash transport water. Legacy wastewater from the other wastewater streams is not being discharged.

Legacy bottom ash transport water and combustion residual leachate will discharge through Outfall 003. Limitations for TSS, Oil & Grease, and pH have been established at Outfall 003 based on the BPT effluent limitations guidelines for the steam electric

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Conditions, Paragraphs J and T (EDMS Document No. 13216257, pages 38 and 43-44 of 172).

163 TSS = total suspended solids.

164 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Other Conditions, Paragraphs J, T, U, and V (EDMS Document No. 13216257, pages 38 and 43-44 of 172).

165 See *Southwestern Electric Power Co. v. EPA*, 15-60821 (5th Cir. 4/12/19), 920 F.3d 999.

power generating category (40 CFR 423.12). LDEQ addresses toxicity associated with these categories of wastewater by screening toxicity information provided in the application prior to discharge to waters of the state. In accordance with 40 CFR 122.44(d)(1)/LAC 33:IX.2707.D.1., the existing discharge was evaluated in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, October 26, 2010 (water quality implementation plan).[166] According to the water quality implementation plan, any parameter that demonstrates reasonable potential to exceed water quality standards will have water quality based limitations established in the permit with an accompanying compliance schedule. For Outfall 003, analytical results from the permittee's application were screened against state water quality numerical standard based limits. As a result of the screen, no parameters demonstrated reasonable potential to cause exceedance of water quality standards; therefore, no water quality based limitations were required (See Appendix B). A re-opener clause is included in Other Conditions of the permit should more stringent discharge limitations and/or additional restrictions be required in the future to maintain the water quality integrity and the designated uses of the receiving waterbodies.

The limitations and monitoring requirements established in the permit are protective of human health, aquatic life, and the environment. Should EPA issue a final rule that updates the guidelines, LDEQ will appropriately implement them in LPDES permits for these facilities. This permit may be reopened to implement final EPA Effluent Guidelines and requirements may added and/or removed as applicable.

c. Solid Waste Generation

Nelson Coal Unit 6 maintains the following solid waste permits:

- P-0018-R1-M6 (coal ash disposal landfill) issued on August 17, 2011 and modified on January 30, 2012, September 16, 2012, and March 6, 2013; May 11, 2016; November 29, 2016; and August 13, 2018.[167]
- P-0019-R1-M3 (Settling Pond) issued on August 17, 2011 and modified on September 16, 2012; March 6, 2013; and May 19, 2016;[168] and
- P-0078-R1 (Wastewater Neutralization Pond) issued on August 17, 2011 and modified on September 16, 2012, March 6, 2013, November 4, 2015, and May 2, 2016.[169]

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166 EDMS Document No. 7717002.
167 EDMS Document Nos. 8077326, 8260114, 8546571, 8744253, and 11267403.
168 EDMS Document Nos. 8077332, 8546551, 8744259, and 10199641.
169 EDMS Document Nos. 8077330, 8546593, 8744255, 9985624, and 10175616.

d. Hazardous Waste Generation

The Roy S. Nelson Station notified as a conditionally exempt small quantity generator of hazardous waste under EPA Identification Number LAD985185339 on October 6, 2015.[170]

According to the renewal application, any hazardous wastes generated will be non-routine, small in terms of quantity, and only briefly maintained on site within approved containers.[171]

e. Other

No threatened or endangered species or cultural or historical resources are expected to be impacted as a result of the proposed permit.[172]

CONCLUSION: For the reasons stated above, the LDEQ finds that the potential and real adverse environmental effects have been avoided to the maximum extent possible.

5. COST/BENEFIT ANALYSIS (BALANCING): Does a cost benefit analysis of the environmental impact costs balanced against the social and economic benefits of the proposed facility demonstrate that the latter outweighs the former?

The social and economic benefits of the proposed project will outweigh its adverse environmental impacts. Notably, the Louisiana Constitution requires balancing, not protection of the environment as an exclusive goal.[173]

a. Environmental Impact Costs

The potential for adverse environmental impacts associated with this facility's operations, along with measures to avoid those impacts, have been described in Section IV.B.3 and 4. These impacts have been avoided to the maximum extent possible.

b. Social and Economic Benefits[174]

The Nelson Coal Unit 6 facility operations provide economic benefits to the local residents, the parish and to the State of Louisiana. As provided in the EAS, as accepted by the LDEQ, the facility provides jobs and annual revenue to Calcasieu Parish and the State of Louisiana. In addition, the facility produces electricity for residential, commercial, and industrial users in the West of the Atchafalaya Basin (WOTAB) region and also participates in the

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170 EDMS Document Nos. 9961932 and 10007046.
171 See EAS, EDMS Document No. 12245198, page 557 of 572.
172 LPDES Draft Permit LA0054135, Fact Sheet and Rationale, Sections XVI and XVII (EDMS Document No. 13216257, page 119 of 172) and EAS, EDMS Document No. 12245198, page 566 of 572.
173 *Save Ourselves*, 452 So.2d at 1157.
174 See EAS, EDMS Document No. 12245198, pages 560-561 of 572.

Midcontinent Independent System Operator, Inc. (MISO) regional transmission organization. The power station is necessary to meet this commitment. The continued facility operations, under the terms and conditions of the renewal LPDES permit, are expected to help to maintain the existing benefits.

CONCLUSION: Based on the reasoning above, the LDEQ finds that the social and economic benefits outweigh the environmental impact costs.

V. ANTIDEGRADATION

The LDEQ's Antidegradation Policy found at LAC 33:IX.1109 and Implementation Plan found at LAC 33:IX.1119 are LDEQ's implementation of the federal Antidegradation Policy found at 40 CFR 131.12. The goal of the antidegradation policy and implementation plan is to protect designated uses and the water quality necessary to support these uses. The LDEQ evaluates proposed (new or increased) discharges to determine the impact on water quality and whether additional wasteload content will protect water quality criteria and provide the support of designated uses. Additionally, if water quality will be affected, the LDEQ must ensure that the inter-government coordination and public provisions of the state's continuing planning processes are met.

The LDEQ considered the discharges authorized by the permit and their impact on the receiving waterbody, Subsegment 030806 of the Calcasieu River Basin.

Subsegment Analysis

Subsegments are hydrologic units used to define the borders of a watershed or drainage basin. Each subsegment has water quality standards unique to its location and designated uses. The discharges from Outfalls 001, 002, 003, 004, and 005 are located within the boundaries of Subsegment 030806, Houston River – from Bear Head Creek at LA Highway 12 to West Fork Calcasieu River. The LDEQ has reviewed the permit with regard to each of the subsegment's designated uses, degree of support for the designated uses, causes and sources of impairment, and water quality standards.

The designated uses for Subsegment 030806 listed in LAC 33:IX.1123 (Table 3) are primary contact recreation, secondary contact recreation, fish and wildlife propagation, and agriculture.

Primary Contact Recreation – defined in LAC 33:IX.1111.A as "any recreational or other water contact activity involving prolonged or regular full-body contact with the water and in which the probability of ingesting appreciable amounts of water is considerable. Examples of this type of water use include swimming, skiing, and diving."

Secondary Contact Recreation – defined in LAC 33:IX.1111.A as "any recreational or other water contact activity involving prolonged or regular full-body contact with the water and in which the probability of ingesting appreciable amounts of water is minimal. Examples of this type of water use include fishing, wading, and boating."

Fish and Wildlife Propagation – defined in LAC 33:IX.1111.A as "the use of water for aquatic habitat, food, resting, reproduction, cove and/or travel corridors for any indigenous wildlife and aquatic life species associated with the aquatic environment. This use also includes the maintenance of water quality at a level that prevents damage to indigenous wildlife and aquatic life species associated with the aquatic environment and contamination of aquatic biota consumed by humans."

Agriculture – defined in LAC 33:IX.1111.A as "the use of water for crop spraying, irrigation, livestock watering, poultry operations, and other farm purposes not related to human consumption."

Biannually, the LDEQ assesses whether or not water quality standards are being met for each subsegment's designated uses. The degree of support for each designated use is analyzed with respect to ambient water quality data, total maximum daily load (TMDL) surveys, and other information related to the subsegment. This data can be found in the Louisiana Water Quality Inventory: Integrated Report, which is also commonly known as the "305(b)/303(d) report."

The draft renewal permit was developed using the Final 2020 Integrated Report (202 IR).[175] According to the 2020 IR, Subsegment 030806, Houston River – from Bear Head Creek at LA Highway 12 to West Fork Calcasieu River, is listed as not supporting one or more of its designated uses; two of the suspected causes are low pH and color. A reopener clause has been established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by a future TMDL or management strategy.

Low pH

The low pH impairment is listed as due to natural sources. A pH mixing evaluation was conducted and the proposed pH limits will not cause an impairment to the receiving stream (see Appendix B-7 and Appendix B-8).[176] Effluent limitations for minimum pH have been maintained from the current permit and should prevent the further impairment of this waterbody.

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[175] See LDEQ 2020 Integrated Report, EDMS Document No. 12785388.

[176] See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Fact Sheet, Appendix B-7 and Appendix B-8 (EDMS Document No. 13216257, pages 147-152 of 172).

Color

The color impairment listed for Subsegment 030806 applies only to those waterbodies specifically identified in LDEQ's Final 2020 Integrated Report, and not to the entire subsegment, unless so specified. Because the discharge from this facility is not directly into Houston River Canal, color was not addressed in the permit development.

Please note, LDEQ's Final 2022 303(d) Integrated Report (2022 IR) was recently approved. Subsegment 030806 is not listed on the 2022 IR as impaired for low pH and color. However, Subsegment 030806 is listed on the 2022 IR as not supporting its designated uses due to fecal coliform.[177] LDEQ applies fecal coliform criteria end of pipe to discharges of treated sanitary wastewater. Therefore, compliance with the fecal coliform effluent limitations established for treated sanitary wastewater in this permit should not further cause or contribute to the waterbody not meeting the fecal coliform criteria.

Additionally, Subsegment 030806 is also listed on LDEQ's Final 2020 and 2022 303(d) Integrated Reports as not supporting one or more of its designated uses due to mercury and dissolved oxygen (DO) for which the below TMDLs have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDLs and/or other water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL or management strategy watersheds as necessary to achieve compliance with water quality standards.

The following TMDLs have been established for Subsegment 030806:

Coastal Mercury TMDL

TMDL for Mercury in Fish Tissue for Coastal Waters of the Calcasieu River Basin (Subsegment 031201) was finalized on May 31, 2002.[178] Nelson Coal Unit 6 (LA0059030) was identified in Appendix C of the TMDL as a point source discharge included in the TMDL. However, based on the facility type, SIC code, previous permits and the absence of reasonable potential to discharge mercury, Coal Unit 6 was not given an allocation for mercury in the TMDL. None of the Margin of Safety (MOS) for this TMDL has been allocated to this discharger. Based on the TMDL rationale and the analytical data submitted with the application, there is no reasonable potential for the discharge of mercury from Coal Unit 6 in levels that may cause impairment of the receiving waterbody. Therefore, no requirements for mercury have been established in the renewal permit because of the TMDL.

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[177] See LDEQ 2022 Integrated Report, EDMS Document No. 13437098.
[178] See EDMS Document No. 6619389.

Houston River Watershed TMDL for Biochemical Oxygen-Demanding Substances

Houston River Watershed TMDL for Biochemical Oxygen-Demanding Substances was revised December 5, 2001. Nelson Coal Unit 6 (LA0059030) was identified in the discharger inventory of this TMDL. However, the TMDL indicated that Coal Unit 6 would be included in the report for another TMDL already underway by a contractor (see *Calcasieu Estuary TMDL for Dissolved Oxygen* below).[179] None of the MOS for this TMDL has been allocated to this discharger. Limitations for TOC and BOD_5 have been maintained from the previous permit and will provide control of oxygen demand from Coal Unit 6.

Calcasieu Estuary TMDL for Dissolved Oxygen

TMDLs for Dissolved Oxygen for the Calcasieu Estuary was finalized on July 1, 2002. Nelson Coal Unit 6 (LA0059030) was identified in Appendix J of the TMDL as a point source discharge in the Calcasieu Estuary, specifically the Houston River. Coal Unit 6 was not given an allocation for oxygen demanding pollutants in the TMDL. None of the MOS for this TMDL has been allocated to this discharger. According to the TMDL report, "Attainment of the DO criteria for the subsegments modeled in this study will require focused management of nonpoint sources. The implementation of this TMDL through wastewater discharge permits and implementation of best management practices to control and reduce runoff of soil and oxygen-demanding pollutants from nonpoint sources in the watershed will also control and reduce the nutrient loading from those sources."[180] However, limits for TOC and BOD_5 have been maintained from the previous permit and will provide control of oxygen demand from Coal Unit 6.

The MOS portion of the TMDL for Subsegment 030806 accounts for future growth as well as modeling uncertainty. Examples of modeling uncertainties are modeling assumptions, lack of knowledge of the relationship between effluent limitations (loadings) and water quality response, amount of data available, and statistical analysis.

Louisiana Nutrient Management Strategy

The Louisiana Nutrient Management Strategy (Strategy), originally released in 2014, is a collaborative approach among stakeholders for making progress toward managing nutrients within the state's waterbodies. As part of the Strategy, specifically Strategic Action 9.d, the LPDES Permit Program aims to gather and evaluate information on nutrients through monitoring permitted dischargers that may have the potential to cause or contribute to an impairment of Louisiana waterbodies. In support of Strategic Action 9.d, the Point Source Implementation Strategy for Nutrients in the Louisiana Pollutant

179 See EDMS Document No. 2168951.
180 See EDMS Document No.10712777.

Discharge Elimination System (LPDES) Program (Point Source Strategy), LDEQ, May 30, 2017,[181] was created to outline the processes used to determine whether nutrient monitoring should be included as part of the permit. In accordance with the Point Source Strategy, each application must be reviewed to determine if a potential to cause or contribute to impairment of the receiving waterbody exists. Results of the review of the application and facility type indicate this discharge may not have the potential to cause or contribute to the impairment; therefore, monitoring requirements for Total Nitrogen (TN) and Total Phosphorus (TP) have not been included in this permit at this time.

Water Quality Standards

According to LAC 33:IX.1113, criteria are elements of the water quality which set general and numerical limitations on the permissible amounts of a substance or other characteristics of state waters. General and numerical criteria are established to promote restoration, maintenance, and protection of state waters. General criteria specifically apply to human activities; they do not apply to naturally occurring conditions. General water quality criteria include: aesthetic consideration; color; floating, suspended or settleable solids; taste and odor; toxic substances; oil and grease; foaming or frothing materials; balance of the nitrogen-phosphorus nutrient ratio; turbidity; alteration of flow characteristics; radioactive materials; and the maintenance and protection of the biological and aquatic community integrity.

The facility, under the conditions of the LPDES permit, is not expected to negatively impact the designated instream water uses and the water quality necessary to support these uses in Subsegment 030806. Furthermore, the facility has been in operation for approximately 40 years. Compliance with the limitations on the discharges from final Outfalls 001, 002, 003, 004, and 005 will protect the receiving stream.

The facility, under conditions of the LPDES permit, is not expected to negatively impact the designated instream water uses and the water quality necessary to support these uses in the subsegment. Therefore, these discharges comply with the antidegradation policy.

VI. ENVIRONMENAL JUSTICE CONSIDERATIONS

Nelson Coal Unit 6 is located in Westlake, Louisiana, within Calcasieu Parish. Calcasieu Parish is the location of several existing industrial facilities. As such, LDEQ has considered the potential for environmental justice concerns as part of the permit review process.

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development,

[181] https://www.deq.louisiana.gov/page/nutrient-management-strategy#:~:text=Point%20Source%20Implementation%20Strategy%20for%20Nutrients%20in%20the%20Louisiana%20Pollutant%20Discharge%20Elimination%20System%20(LPDES)%20Program

implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial operations. Meaningful involvement means:

- people have an opportunity to participate in decisions about activities that may affect their environment and/or health;
- the public's contribution can influence the permitting authority's decision;
- community concerns will be considered in the decision making process; and
- decision makers will seek out and facilitate the involvement of those potentially affected.[182]

Select Steel Complaint and U.S. EPA's External Civil Rights Compliance Office Compliance Toolkit

EPA's External Civil Rights Compliance Office (formerly the Office of Civil Rights) has approached the matter of environmental justice in various ways. In responding to a Title VI administrative complaint filed on June 9, 1998, against the Michigan Department of Environmental Quality (MDEQ), EPA's Office of Civil Rights addressed allegations regarding "adverse" and "disparate" air quality impacts as follows in "Allegation Regarding Air Quality Impacts:"[183]

> The environmental laws that EPA and the states administer generally do not prohibit pollution outright: rather, they treat some level of pollution as "acceptable" when pollution sources are regulated under individual, facility-specific permits, recognizing society's demand for such things as power plants, waste treatment systems, and manufacturing facilities. In effect, Congress—and, by extension, society—has made a judgment that some level of pollution and possible associated risk should be tolerated for the good of all, in order for Americans to enjoy the benefits of a modern society—to have electricity, heat in our homes, and the products we use to clean our dishes or manufacture our wares. Similarly, society recognizes that we need facilities to treat and dispose of wastes from our homes and businesses (such as landfills to dispose of our trash and treatment works to treat our sewage), despite the fact that these operations also result in some pollution releases. The expectation and belief of the regulators is that, assuming that facilities comply with their permit limits and terms, the allowed pollution levels are acceptable and low enough to be protective.

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182 https://www.epa.gov/environmentaljustice/learn-about-environmental-justice

183 "Investigative Report for Title VI Administrative Complaint EPA File No. 5R-98-R5 (Select Steel Complaint)," pages 27-29 (internal citations omitted)

EPA and the states have promulgated a wide series of regulations to effectuate these protections. Some of these regulations are based on assessment of public health risks associated with certain levels of pollution in the ambient environment. The National Ambient Air Quality Standards (NAAQS) established under the Clean Air Act (CAA) are an example of this kind of health-based ambient standard setting. Air quality that adheres to such standards is presumptively protective of human health. Other standards are "technology-based," requiring installation of pollution control equipment which has been determined to be appropriate in view of pollution reduction goals. In the case of hazardous air pollutants under the CAA, EPA sets technology-based standards for industrial sources of toxic air pollution. The maximum achievable control technology standards under the Clean Air Act are examples of this kind of technology-based standard setting. After the application of technology-based standards, as assessment of the remaining or residual risk is undertaken and additional controls implemented where needed.

Title VI and EPA's implementing regulations set out a requirement independent of the environmental statutes that all recipients of EPA financial assistance ensure that they implement their environmental programs in a manner that does not have a discriminatory effect based on race, color, or national origin. If recipients of EPA funding are found to have implemented their EPA-delegated or authorized federal environmental programs (*e.g.,* permitting programs) in a manner which distributes the otherwise acceptable residual pollution or other effects in ways that result in a harmful concentration of those effects in racial or ethnic communities, then a finding of an adverse disparate impact on those communities within the meaning of Title VI may, depending on the circumstances, be appropriate.

Importantly, to be actionable under Title VI, an impact must be both "adverse" and "disparate." The determination of whether the distribution of effects from regulated sources to racial or ethnic communities is "adverse" within the meaning of Title VI will necessarily turn on the facts and circumstances of each case and the nature of the environmental regulation designed to afford protection. As the United States Supreme Court stated in the case of *Alexander v. Choate*, 469 U.S. 287 (1985), the inquiry for federal agencies under Title VI is to identify the sort of disparate impacts upon racial or ethnic groups which constitute "sufficiently significant social problems, and [are] readily enough remediable, to warrant altering the practices of the federal grantees that had produced those impacts." *Id.* At 293-94 (emphasis added).

> The complaint in this case raises air quality concerns regarding several NAAQS-covered pollutants, as well as several other pollutants. With respect to the NAAQS-covered pollutants, and as explained more fully below, EPA believes that where, as here, an air quality concern is raised regarding a pollutant regulated pursuant to an ambient, health-based standard, and where the area in question is in compliance with, and will continue after the operation of the challenged facility to comply with, that standard, the air quality in the surrounding community is presumptively protective and emissions of that pollutant should not be viewed as "adverse" within the meaning of Title VI. By establishing an ambient, public health threshold, standards like the NAAQS contemplate multiple source contributions and establish a protective limit on cumulative emissions that should ordinarily prevent an adverse air quality impact.
>
> With respect to the pollutants of concern that are not covered by the NAAQS, Title VI calls for an examination of whether those pollutants have become so concentrated in a racial or ethnic community that the addition of a new source will pose a harm to that community. If there is no "adverse" impact for anyone living in the vicinity of the facility, it is unnecessary to reach the question of whether the impacts are "disparate."[184]
>
> In sum, complying with the NAAQS creates a presumption of no adversity that will stand unless affirmatively overcome.[185]

Notably, this approach has been upheld by EPA's Environmental Appeals Board (EAB), which has commented:

> The Board relies on and defers to the Agency's cumulative expertise when upholding a permit issuer's environmental justice analysis based on a proposed facility's compliance with the relevant NAAQS in a PSD appeal. In the context of an environmental justice analysis, compliance with the NAAQS is emblematic of achieving a level of public health protection that, based on the level of protection afforded by a primary NAAQS, demonstrates that minority or low-income populations will not experience disproportionately

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184 Letter from Ann E. Goode, Director of EPA's Office of Civil Rights to Father Phil Schmitter and Sister Joanne Chiavemi, Co-Directors, St. Francis Prayer Center, G-2381 East Carpenter Road, Flint, Michigan 48909-7973.

185 Under EPA's "Draft Revised Guidance for Investigating Title VI Administrative Complaints Challenging Permits," complying with the NAAQS created a presumption of no adversity that would stand unless affirmatively overcome (i.e., the "rebuttable presumption" approach). In 2013, EPA proposed to eliminate application of the rebuttable presumption when investigating allegations about environmental health-based thresholds. See "Draft Policy Papers Released for Public Comment: Title VI of the Civil Rights Act of 1964: Adversity and Compliance With Environmental Health-Based Thresholds, and Role of Complainants and Recipients in the Title VI Complaints and Resolution Process" (78 FR 24739, April 26, 2013). EPA solicited "input and/or comment" on this document over 5 years ago. However, the policy remains in draft form and has never been formally adopted by the agency, perhaps due to consideration of the comments received. Accordingly, the "rebuttable presumption" approach remains EPA's most recent articulation of its environmental justice policy.

> high and adverse human health or environmental effects due to exposure to relevant criteria pollutants.[186]

EPA's current "approach to adversity" is set forth in the "U.S. EPA's External Civil Rights Compliance Office Compliance Toolkit," dated January 18, 2017 (hereafter "Toolkit").[187] While EPA's approach described therein eliminates application of the rebuttable presumption, it is still intrinsically linked to whether a given area is compliant with water quality standards. The Toolkit discusses EPA's approach using an example complaint based on NAAQS. According to the Toolkit, in analyzing a civil rights complaint:

> EPA will consider the information provided in the complaint, including any information pertinent to whether the air quality in the area in question does not meet the NAAQS. EPA will examine whether site-specific information demonstrates the presence of adverse health effects from the NAAQS pollutants, even though the area is designated attainment for all such pollutants and the facility recently obtained a construction and operating permit that ostensibly meets applicable requirements. For instance, EPA's assessment would seek to establish whether a localized adverse health impact, as indicated by the NAAQS, exists in the area at issue and has been (or will be) caused by the emissions from the [facility] even though the impact of the facility had previously been modeled to demonstrate that the source met the criteria for obtaining a construction permit. . . . The localized adverse health impact may result from the increased emissions from the [facility], but was not identified at the time of the permit review.
>
> * * *
>
> EPA's investigation would seek to ascertain the existence of such adverse impacts (e.g., violations of the NAAQS) in an area regardless of the area's designation and the prior permitting record.

EPA goes on to encourage complainants to "provide precise allegations and quantified information about the location and nature of the adverse impact from higher-than expected concentrations of the NAAQS pollutant" and concludes by stating:

> EPA will determine if a health-based NAAQS is likely not being met at the location in question, and whether the likely localized violation of a NAAQS is due, at least in part, to the impact of the particular source of air pollution that has recently obtained permits to construct and operate.

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[186] *In re Shell Gulf of Mexico Inc. & In re Shell Offshore, Inc. (Frontier Discoverer Drilling Unit)*, 15 E.A.D. 103, 156 (EAB 2010), available at http://yosemite.epa.gov/oa/EAB_Web_Docket.nsf/Case-Name!OpenView.

[187] https://www.epa.gov/sites/production/files/2017-01/documents/toolkit-chapter1-transmittal_letter-faqs.pdf

Although the Michigan Select Steel Title VI complaint examines environmental justice in the context of a Title V air permit, the EPA's assessment and reasoning applies to LPDES permits by analogy. LPDES permits include both water quality based limits and technology based effluent limits. Nelson Coal Unit 6, located in Westlake, Louisiana, within Calcasieu Parish, when operated in accordance with the conditions of its LPDES permit (Permit No. LA0059030), is not expected to result in an adverse impact in the surrounding area. As such, without an "adverse" impact, there can be no "disparate" impact.

EJSCREEN

EJSCREEN is an environmental justice (EJ) mapping and screening tool that provides EPA with a nationally consistent dataset and approach for combining environmental and demographic indicators. EPA uses EJSCREEN to "screen for areas that may be candidates for additional consideration, analysis or outreach as EPA develops programs, policies and activities that may affect communities."[188]

However, EPA cautions that EJSCREEN should *not* be used:

- as a means to identify or label an area as an "EJ community";
- to quantify specific risk values for a selected area;
- to measure cumulative impacts of multiple environmental factors; or
- as a basis for agency decision making or making a determination regarding the existence or absence of EJ concerns.[189]

EPA goes on to state that screening-level results:

- do not, by themselves, determine the existence or absence of environmental justice concerns in a given location;
- do not provide a risk assessment; and
- have other significant limitations.[190]

LDEQ ran an EJSCREEN report in a 3-mile ring centered at the center of the Nelson Coal Unit 6 facility 30.285129, -93.291743 on March 4, 2023, which is attached to this Basis for Decision. The EJSCREEN report includes a demographic index based on the average of two demographic indicators; low-income and people of color.[191] The demographic index in the

188 See "How Does EPA Use EJScreen?" at https://www.epa.gov/ejscreen/how-does-epa-use-ejscreen.
189 See "How Does EPA Use EJScreen?" at https://www.epa.gov/ejscreen/how-does-epa-use-ejscreen.
190 See "Purposes and Uses of EJScreen" at https://www.epa.gov/ejscreen/purposes-and-uses-ejscreen
191 See "Overview of Demographic Indicators in EJScreen" at https://www.epa.gov/ejscreen/overview-demographic-indicators-ejscreen. The *low-income* demographic indicator is described by EPA as "The percent of a block group's population in households where the household income is less than or equal to twice the federal 'poverty level.'" The *people of color* demographic indicator is described by EPA as "The percent of individuals in a block group who list their racial status as a race other than white alone and/or list their ethnicity as Hispanic or Latino. That is, all people other than non-Hispanic white-alone individuals. The word 'alone' in this case indicates that the person is of a single race, not multi racial."

area proximate to the Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Plant (Coal Unit 6) is 20 percent, which is less than the state average demographic index of 41 percent.[192]

For *all* environmental indicators evaluated by the EJSCREEN 3-mile report, the EJ indexes are below 80. LDEQ understands that 80 is EPA's recommended threshold for an EJ index, which triggers further consideration or analysis.[193]

Environmental Indicator[194]	EJ Index 3-Mile
Particulate Matter ($PM_{2.5}$ in µg/m³)	56
Ozone (ppb)	34
2017 Diesel Particulate Matter (µg/m3)	43
2017 Air Toxics Cancer Risk (lifetime risk per million)	41
2017 Air Toxics Respiratory Hazard Index	38
Traffic Proximity (daily traffic count/distance to road)	23
Lead Paint (% Pre-1960 Housing)	40
Superfund Proximity (site count/km distance)	57
RMP Facility Proximity (facility count/km distance)	54
Hazardous Waste Proximity (facility count/km distance)	50
Underground Storage Tanks (count/km2)	37
Wastewater Discharge (toxicity-weighted concentration/m distance)	41

The aforementioned 3-mile EJSCREEN report suggests that the area proximate to Nelson Coal Unit 6 is not a candidate for additional environmental justice consideration or analysis.

Conclusion

LDEQ has determined that the limitations and monitoring requirements established in the LPDES water discharge permit are protective of the receiving stream's designated uses, human health, aquatic life, and the environment.

Based on the information presented above, this project will not disproportionately affect minority populations or low-income populations. Further, it is clear that LDEQ provided an opportunity for all parties to be meaningfully involved in the permit process. LDEQ has carefully considered the community's concerns in the decision making process.

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192 All EJSCREEN data reflects a 3-mile ring centered at 30.285160, -93.293324.

193 See U.S. Environmental Protection Agency (EPA), 2019. EJSCREEN Technical Documentation. Page 114, available at https://www.epa.gov/sites/default/files/2021-04/documents/ejscreen_technical_document.pdf

194 For an explanation of each environmental indicator, see https://www.epa.gov/ejscreen/overview-environmental-indicators-ejscreen.

VII. COMPLIANCE HISTORY

A. Facility Compliance History

LDEQ records for the Nelson Coal Unit 6 were reviewed. There were no recent open enforcement actions on file as of March 7, 2023.

B. Discharge Monitoring Reports (DMRs)

A review of the DMR reports in ICIS was performed covering the monitoring period of June 2018 through December 2022 for Outfall 001; and November 2019 through January 2023 for all other outfalls. All DMRs for Outfalls 005 and 303 reported "NODI-C/no discharge" during this time period. The following excursion was noted:

DATE	PARAMETER	OUTFALL	REPORTED VALUE		PERMIT LIMITS	
			MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM
Jan. 2022	TSS	003	---	53.5 mg/L	---	50 mg/L

C. Inspections

A water compliance inspection was performed on July 1, 2020.[195] No areas of concern were noted on the inspection report.

A solid waste inspection was performed on November 18, 2021.[196] No areas of concern were noted on the report.

An air compliance inspection was performed on March 22, 2021.[197] According to the report, installation of the EQT 41 replacement occurred prior to authorization.

D. Review of the Permit Applicant

The LDEQ has reviewed the qualifications of this facility as a permit applicant for the LPDES permit. Nelson Coal Unit 6 is registered with the Secretary of State and has no outstanding water fees. There is currently one outstanding solid waste invoice for Nelson Coal Unit 6.

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195 See EDMS Document No. 12682518.
196 See EDMS Document No. 13018881.
197 See EDMS Document No. 12917256.

Entergy Louisiana, LLC also operates the following facilities: Buras Electric Generating Plant; Calcasieu Electric Generating Plant; Little Gypsy Electric Generating Plant; Monroe Electric Generating Plant; Nelson Industrial Steam Company (NISCO); Roy S. Nelson Oil and Gas Generating Plant; Lake Charles Power Station; Ninemile Point Electric Generating Plant; Ouachita Power Generating Plant; Perryville Electric Generating Plant; Sterlington Electric Generating Plant; and Waterford 1 &2 Electric Generating Plant.

As of December 12, 2022, Entergy as a whole does not have any outstanding water fees. Based on a file review, there are no recent open water enforcement actions on file for other Entergy facilities.

Based on the information contained in the application submitted to the LDEQ, the LDEQ has determined that this facility is expected to maintain its operations and meet the requirements of the permit.

VIII. CONCLUSION

The LDEQ, Office of Environmental Services, Water Permits Division, has conducted a thorough review of the administrative record, including the permit application and additional information submitted by this facility, as well as comments from the public. The LPDES Permit (LA0059030) has been issued to Entergy Louisiana, LLC for the Roy S. Nelson Electric Generating Plant (Coal Unit 6), its existing steam electric generating facility.

The permit for this facility will require that the discharges be controlled to meet or exceed the requirements of all applicable regulations and defined permit conditions.

The Nelson Coal Unit 6 facility produces electricity for residential, commercial, and industrial users in the WOTAB[198] region and also participates in the MISO regional transmission organization. The local, state, and national economy is expected to benefit from the continued operation of the facility. The operation is expected to enhance the current economy by providing personal income for the facility's permanent and contract employees; increasing the tax revenues for Calcasieu Parish, the State of Louisiana, and the federal government; and necessitating the purchase of goods and services from other businesses. These benefits are major, significant, and tangible. They outweigh the environmental impact costs of operation of the existing steam electric generating facility.

Based on a careful review and evaluation of the entire administrative record, which includes the permit application, Environmental Assessment Statement, additional information associated with the application, the draft permit package, and all public comments, the Louisiana Department of Environmental Quality, Office of Environmental Services, finds that the permit for this facility will comply with all applicable federal and state statutes and

[198] WOTAB = West of the Atchafalaya Basin

regulations and will comply with the requirements of *Save Ourselves v. La. Envtl. Control Commission*, 452 So. 2d 1152, 1157 (La. 1984). Particularly, the LDEQ finds that the permit will minimize or avoid potential and real adverse environmental impacts to the maximum extent possible and that social and economic benefits of the proposed project outweigh adverse environmental impacts. *Id.*

BL Higgins

Bliss M. Higgins, Assistant Secretary
Office of Environmental Services

March 31, 2023

Date

EJScreen Report (Version 2.1)

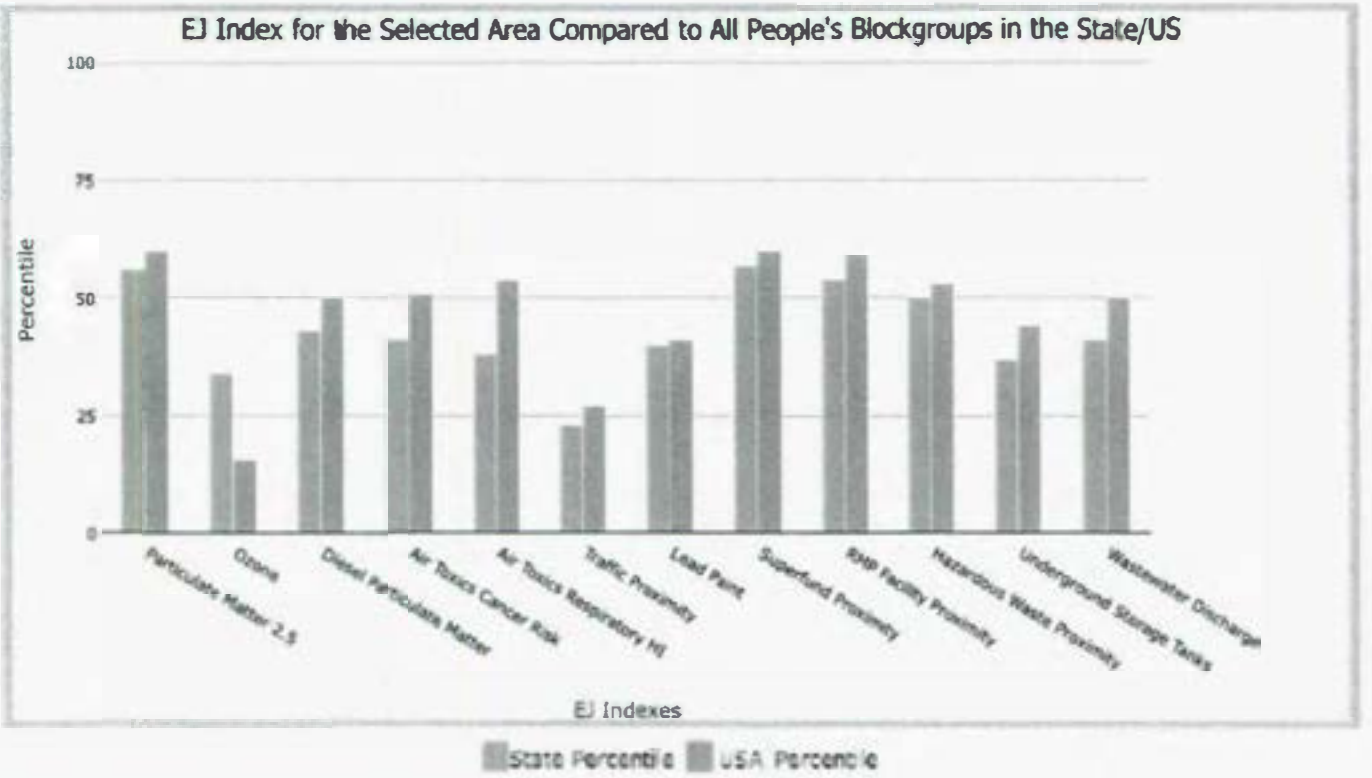
3 miles Ring Centered at 30.285129,-93.291743, LOUISIANA, EPA Region 6

Approximate Population: 8,285

Input Area (sq. miles): 28.27

Roy Nelson Coal Unit 6

Selected Variables	State Percentile	USA Percentile
Environmental Justice Indexes		
EJ Index for Particulate Matter 2.5	56	60
EJ Index for Ozone	34	16
EJ Index for Diesel Particulate Matter*	43	50
EJ Index for Air Toxics Cancer Risk*	41	51
EJ Index for Air Toxics Respiratory HI*	38	54
EJ Index for Traffic Proximity	23	27
EJ Index for Lead Paint	40	41
EJ Index for Superfund Proximity	57	60
EJ Index for RMP Facility Proximity	54	59
EJ Index for Hazardous Waste Proximity	50	53
EJ Index for Underground Storage Tanks	37	44
EJ Index for Wastewater Discharge	41	50



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

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3 miles Ring Centered at 30.285129,-93.291743, LOUISIANA, EPA Region 6

Approximate Population: 8,285

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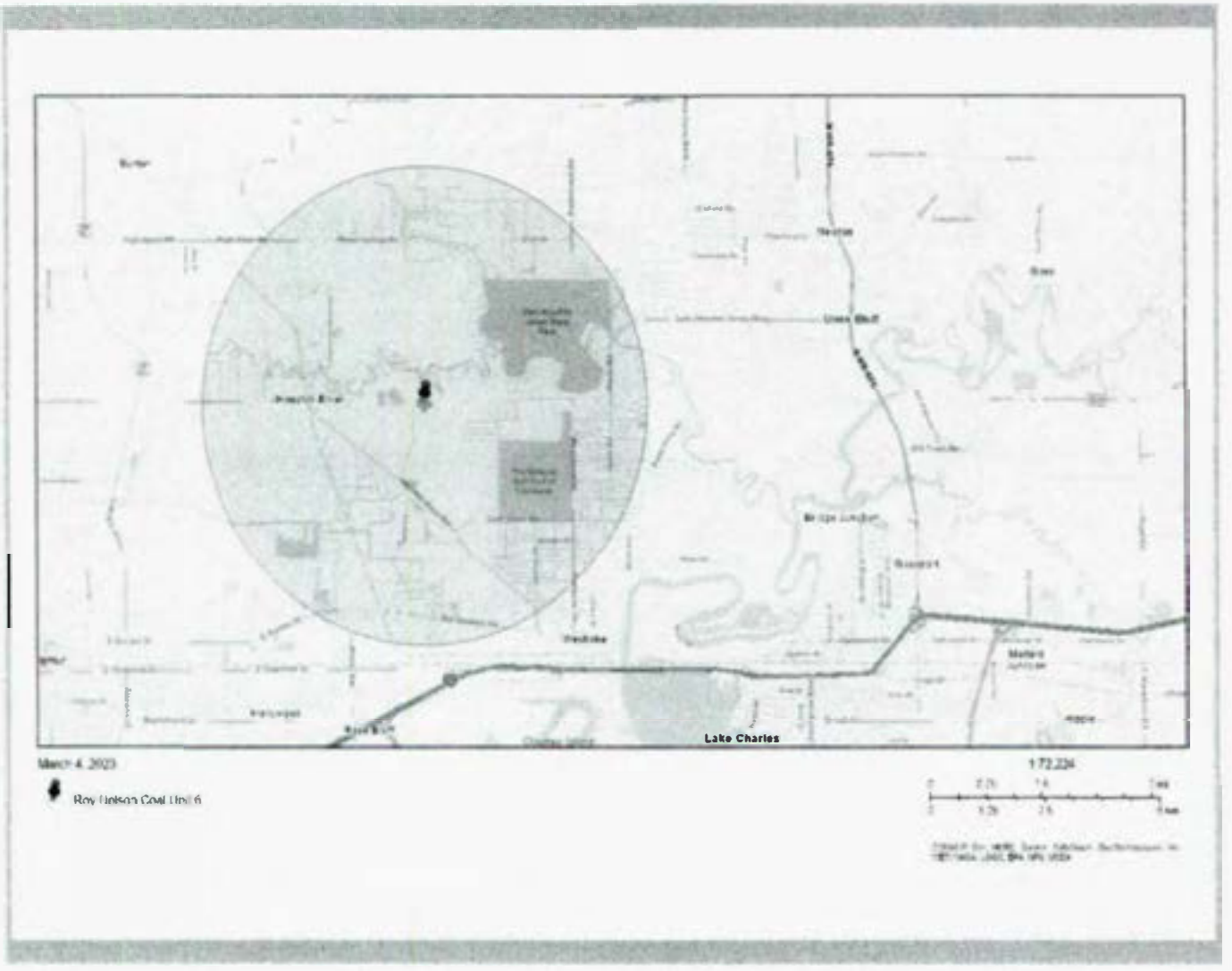
Roy Nelson Coal Unit 6



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	4

EJScreen Report (Version 2.1)

3 miles Ring Centered at 30.285129,-93.291743, LOUISIANA, EPA Region 6

Approximate Population: 8,285

Input Area (sq. miles): 28.27

Roy Nelson Coal Unit 6

Selected Variables	Value	State Avg.	%ile in State	USA Avg.	%ile in USA
Pollution and Sources					
Particulate Matter 2.5 ($\mu g/m^3$)	9.83	9.2	83	8.67	82
Ozone (ppb)	36.3	37	45	42.5	15
Diesel Particulate Matter* ($\mu g/m^3$)	0.283	0.297	59	0.294	50-60th
Air Toxics Cancer Risk* (lifetime risk per million)	110	40	99	28	95-100th
Air Toxics Respiratory HI*	0.68	0.45	98	0.36	95-100th
Traffic Proximity (daily traffic count/distance to road)	110	640	37	760	35
Lead Paint (% Pre-1960 Housing)	0.19	0.2	60	0.27	47
Superfund Proximity (site count/km distance)	0.18	0.076	91	0.13	83
RMP Facility Proximity (facility count/km distance)	2.8	0.96	91	0.77	94
Hazardous Waste Proximity (facility count/km distance)	2.1	1.4	73	2.2	70
Underground Storage Tanks (count/km^2)	1.1	2.2	54	3.9	49
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.72	0.37	94	12	92
Socioeconomic Indicators					
Demographic Index	20%	41%	23	35%	32
People of Color	11%	42%	22	40%	26
Low Income	28%	38%	35	30%	51
Unemployment Rate	2%	7%	39	5%	35
Limited English Speaking Households	0%	2%	0	5%	0
Less Than High School Education	21%	14%	73	12%	82
Under Age 5	7%	7%	62	6%	66
Over Age 64	26%	15%	83	16%	83

*Diesel particular matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

For additional information, see: www.epa.gov/environmentaljustice

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL SERVICES

PUBLIC COMMENTS RESPONSE SUMMARY

LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM (LPDES)
PERMIT NO. LA0059030
AGENCY INTEREST (AI) NO. 19588
ACTIVITY NO. PER20200003

ENTERGY LOUISIANA, LLC
ROY S. NELSON ELECRIC GENERATING PLANT (COAL UNIT 6)
WESTLAKE, CALCASIEU PARISH, LOUISIANA

The Louisiana Department of Environmental Quality (LDEQ), Office of Environmental Services (OES) published a public notice which requested public comment and notified the public of a public hearing regarding the above draft water permit decision for Entergy Louisiana, LLC (Entergy), Roy S. Nelson Electric Generating Plant (Coal Unit 6) (Nelson Coal Unit 6, facility, plant). The public notice was published on the LDEQ website on May 6, 2022.[1] Copies of the public notice were also mailed or e-mailed to the individuals who have requested to be placed on the mailing list maintained by the OES on May 5, 2022. The public notice required that comments and requests for public hearings must be received by 4:30 pm CST, Monday, June 20, 2022. Additionally, the proposed permit was submitted to the U.S. Environmental Protection Agency (EPA) on February 8, 2022.[2]

The LDEQ conducted the public hearing on Thursday, June 16, 2022, at the City of Westlake Council Chambers, located at 1001 Mulberry Street, in Westlake, Louisiana. All public notice and public comment activities were conducted in accordance with Louisiana Water Quality Regulations.[3] The official public comment period ended June 20, 2022.

The water permit application and associated EAS,[4] the draft water permit, additional information, and the Fact Sheet associated with the draft water permit were available for review at the LDEQ Public Records Center in Baton Rouge; at the Calcasieu Parish Library – Westlake Branch in Westlake and Sulphur Regional Branch in Sulphur; and on the LDEQ Public Participation & Permit Support Public Notices webpage. The information was also accessible to the public in the LDEQ's Electronic Document Management System (EDMS).[5]

In this *Public Comments Response Summary*, the LDEQ has responded to pertinent statements (questions and/or comments) received via mail, e-mail, and at the public hearing regarding the impact of discharges on water quality relevant to the LPDES water permit for Entergy Louisiana, LLC, Roy

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1 See EDMS Document No. 13270352.

2 No comments were received from EPA during the comment period, nor did EPA object to the proposed permit per 40 CFR 123.44. (EDMS Document No. 13186457).

3 See LAC 33:IX.3113, 3115, 3117, and 3119. See also La. R.S. 30:2074(A), La. R.S. 30:2016, and La. R.S. 30:2017.

4 EAS = Environmental Assessment Statement

5 EDMS stands for Electronic Document Management System, the LDEQ's electronic repository of official records that have been created or received by LDEQ. Employees and members of the public can search and retrieve documents stored in EDMS via this web application. (See http://edms.deq.louisiana.gov).

S. Nelson Electric Generating Plant (Coal Unit 6). Comments addressing the same issue have been grouped and summarized from the public hearing transcript and the written statements. Issues identified from commenters' statements have been numbered in this document for reference. Documents containing the commenters' complete statements are located in the LDEQ's EDMS.

The LDEQ's responses to comments received during the public comment period are provided below.

ISSUE #1 *DESIGNATED USES/ANTIDEGRADATION ISSUES*

I'm a biologist. President of RESTORE. And I have seen these applications, one after another, after another. Always, the company gets what it wants. And always the DEQ considers no significant problems for anybody except the environment.

As for the Environmental Assessment Statement (EAS), in the separate EDMS Document Number 12245198, dated July 2, 2020, how legitimate that EAS can be considered should be obvious by two things. One, the fact that there was no mention of temperature at all in the EAS, and two just the statement "There are no significant adverse effects anticipated due to the water discharges from the Nelson Plant Unit 6."

Something else the non-holistic regulatory framework is blind to is the blinding of aquatic creatures by the sharp particles being washed down into the river - piercing the corneas, and the gills being clogged by the particles causing suffocation.[6,7]

* * *

For the determination by the DEQ that there is no adverse effect to the waterway, I don't understand how they can reach that conclusion. Maybe because it's been there for 30 years.

We are in Lake Charles, Southwest Louisiana, the epicenter of natural gas exports and, yet, we are still using coal-fired power plants. This is not an air hearing, this is about the water, but it's connected, right? Do we need to have a coal-fired power plant in this area where we are already experiencing seafood advisory and other impacts to sportsman's paradise? How can these fisheries and rookeries continue? They can't. I mean, we've seen that. The impacts over 30 years of this plant operating--- and I love electricity, so let's not get sideways....if the DEQ is going to continue to issue permits, we need to have them completely comply with the permit conditions.[8]

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[6] M. Tritico on behalf of Restore Explicit Symmetry To Our Ravaged Earth (RESTORE); Hearing Package for the public hearing held Thursday, June 16, 2022 for Entergy Louisiana, LLC/Roy S. Nelson (EDMS Document No. 13399853, pages 23-28 and 42-43 of 43).

[7] Written statement from M. Tritico on behalf of Restore Explicit Symmetry To Our Ravaged Earth (RESTORE) (EDMS Document No. 13326206).

[8] J. Hiatt, oral statement; Hearing Package for the public hearing held Thursday, June 16, 2022 for Entergy Louisiana, LLC/Roy S. Nelson (EDMS Document No. 13399853, pages 21-23 of 43).

* * *

In addition to protecting water quality, LDEQ must ensure that Nelson's discharges comply with LDEQ's antidegradation requirements. ... The antidegradation requirement is an ongoing requirement which must be examined, considered, and complied with each time LDEQ renews a permit or issues a new permit. All existing uses of all waters must be maintained and protected.

[T]he draft permit must ensure that discharges from Nelson do not further degrade the Houston River, and must ensure that the Houston River remains available to the public for recreation and fishing.[9]

LDEQ RESPONSE TO ISSUE #1

LDEQ's objective is to maintain a healthy and safe environment for the people of Louisiana, and to protect, conserve and replenish the natural resources of the state consistent with the health, safety, and welfare of the people. See La. Const. art. IX § 1. In light of this goal, LDEQ has worked diligently to develop a permit that is designed to ensure protection of human health, aquatic life, and maintenance of the receiving water.

Designated uses and existing uses are often the same for a waterbody. However, there may be cases where a designated use is a goal for the waterbody, and therefore, is not currently an existing use. In this case, protecting the designated uses offers greater protection to the environment than protecting the existing uses – the waterbody is held to a higher standard than what currently exists. The Roy S. Nelson renewal permit has been written to be protective of the designated uses of the receiving waterbody. LDEQ established limits in the facility's permit based on state and federal regulations and best professional judgment (BPJ). In accordance with the state's Antidegradation Policy, LDEQ established limits to protect the water quality necessary to support designated uses of the receiving waterbody. In addition to numerical effluent limitations and monitoring requirements, the following narrative requirement is included at each final outfall in the permit, "There shall be no discharge of floating or settleable solids or visible foam in other than trace amounts, nor of free oil or other oil materials, nor of toxic materials in quantities such as to cause acute toxicity to aquatic organisms. Furthermore, there shall be no visible sheen or stains attributable to this discharge." LDEQ has determined that in protecting the designated uses of the subsegment, the permit is also protective of the existing uses. It is the responsibility of the facility to ensure that it is capable of meeting the limitations and monitoring requirements established in the permit.

The stream impairments were considered in developing the permit. 303(d)/TMDL[10] status is addressed in Section XI of the Fact Sheet for the draft permit.[11] Subsegment 030806 is listed in

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[9] Written statement from J. Smith on behalf of Sierra Club (EDMS Document No. 13345295)

[10] TMDL = total maximum daily load

[11] See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Fact Sheet, Section XI (EDMS Document No. 13216257, pages 109-111 of 172).

LDEQ's Final 2020 Integrated Report (2020 IR) as not supporting one or more of its designated uses due to color, low pH, dissolved oxygen, and mercury.[12] TMDLs have been completed for dissolved oxygen and mercury. Each impairment is addressed in the Fact Sheet for the draft permit.[13]

Additionally, LDEQ's Final 2022 Integrated Report (2022 IR) has recently been approved. The Final 2022 IR lists Subsegment 030806 as impaired for dissolved oxygen, mercury, and fecal coliform.[14] Dissolved oxygen and mercury were also listed on the 2020 IR and are addressed in the Fact Sheet for the draft renewal permit. Subsegment 030806 was not listed on the 2020 IR as impaired for fecal coliform. Treated sanitary wastewater discharged at Outfall 001 has the potential to contribute to the fecal coliform impairment. However, LDEQ applies fecal coliform criteria at the end of pipe, prior to discharge into a water body, for discharges of treated sanitary wastewater. Therefore, compliance with the fecal coliform limitations established at Outfall 001 will provide protection against further impairment due to fecal coliform.

The permit has been written in accordance with the appropriate federal and state regulations, the CWA, the state's Antidegradation Policy and Water Quality Implementation Plan (Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, October 26, 2010).[15] LDEQ established limitations which are protective of the water quality necessary to support the designated uses of the receiving waterbody.

This issue is addressed in further detail in the attached *Basis for Decision* document under the Antidegradation section.[16]

ISSUE #2 *BIOMONITORING ISSUES*

The variety of sources draining into the Houston River, especially through Outfall 003, is worrisome. I count at least 38 different kinds of liquids being allowed to go to and through that outfall and flush into the Houston River. Things as varied as runoff from the big piles of coal, to purge water from monitoring wells, to coal ash disposal landfill combustion residual leachate, to bottom ash transport water, to dust suppression water, to plant drains, to pavement washdowns, to maintenance wastewater... one thing after another... Yet, strangely, the only outfall subject to biomonitoring, toxicity testing, is Outfall 002 with only 28% as much going through it and that water from one source, a cooling tower.

The toxicity testing should have been, all these years since 1982, done on Outfall 003 and it should now be added to that outfall 003 MONTHLY instead of the planned phase-out of the Outfall 002

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[12] See LDEQ 2020 Integrated Report, EDMS Document No. 12785388.

[13] See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Fact Sheet, Section XI (EDMS Document No. 13216257, pages 109-111 of 172).

[14] See LDEQ 2022 Integrated Report, EDMS Document No. 13437098.

[15] EDMS Document No. 7717002.

[16] See *LDEQ's Basis for Decision, Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Plant (Coal Unit 6, Permit No. LA0059030*, Section V.

quarterly samples to semi-annual and annual.

There's no biological monitoring at Outfall 003, which has the greatest flushing volume.[17, 18]

LDEQ RESPONSE TO ISSUE #2

Historically, LDEQ has focused biomonitoring requirements for power plants on cooling water discharges (e.g. cooling tower blowdown and once through cooling water) due to the large volume of wastewater and high biocide usage. Outfall 002 is for the discharge of cooling tower blowdown. Therefore, whole effluent toxicity (WET) testing/biomonitoring requirements have been retained at Outfall 002. Please note, cooling tower blowdown water may also be used in the bottom ash handling system and/or discharged through Outfall 003. However, cooling tower blowdown water must be sampled for free available chlorine (FAC), total chromium, and total zinc; and biomonitoring must be performed as required by the permit in all three discharge scenarios: (1) when discharging directly through Outfall 002; (2) prior to routing the cooling tower blowdown water directly to the settling pond for discharge through Outfall 003; or (3) prior to using the cooling tower blowdown water in the bottom ash handling system for subsequent discharge through Outfall 003.[19]

Regarding the monitoring frequency for WET testing at Outfall 002, the draft permit included an option for the permittee to request a monitoring frequency reduction for WET testing after the first four consecutive quarters of WET testing after permit reissuance, based on their compliance history. This is not an automatic "phase-out." When a permittee submits a request for a WET testing monitoring frequency reduction, LDEQ reviews the request, including compliance history, to determine if a reduction in frequency is appropriate.[20]

Please note, recent WET testing compliance history was reviewed for the final permit decision. A review of reports filed in EDMS revealed that sub-lethal toxicity[21] has been observed in *Ceriodaphnia dubia* (Daphnid) WET tests after the original biomonitoring recommendation date. In accordance with the current LPDES permit,[22] Entergy has initiated a Toxicity Reduction Evaluation (TRE).[23] A TRE is a step-wise process which combines toxicity testing and analyses of the physical and chemical characteristics of a toxic effluent to identify the constituents causing effluent toxicity and /or treatment methods to reduce the effluent toxicity. Therefore, the monitoring frequency

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17 Written statement from M. Tritico on behalf of Restore Explicit Symmetry To Our Ravaged Earth (RESTORE) (EDMS Document No. 13326206).

18 M. Tritico on behalf of Restore Explicit Symmetry To Our Ravaged Earth (RESTORE); Hearing Package for the public hearing held Thursday, June 16, 2022 for Entergy Louisiana, LLC/Roy S. Nelson (EDMS Document No. 13399853, pages 23-28 and 42-43 of 43).

19 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Effluent Limitations and Monitoring Requirements for Outfall 002 (EDMS Document No. 13216257, pages 13-17 of 172).

20 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Other Conditions, Paragraph X (EDMS Document No. 13216257, page 55 of 172).

21 Sub-lethal test failure is defined as a demonstration of a statistically significant sub-lethal effect (i.e. growth or reproduction) at WET test completion to a test species at or below the critical dilution.

22 See LPDES LA0059030 permit modification, effective July 30, 2020, Part II.S, Whole Effluent Toxicity Testing (EDMS Document No. 12290508, pages 33-45).

23 See EDMS Document Nos. 13132326, 13227148, 13498600, 13608512.

reduction option has been removed from the final permit.

The discharge from Outfall 003 consists of coal pile runoff; coal ash disposal landfill runoff; coal handling area runoff; coal ash disposal landfill combustion residual leachate; optional routing of cooling tower blowdown (testing for FAC, total chromium, and total zinc; and WET testing must be performed as required by the permit prior to routing cooling tower blowdown to the settling pond); cooling tower drift; miscellaneous non-process wastewaters;[24] low volume wastewaters;[25] bottom ash transport water (generated before December 31, 2025); bottom ash purge water; wastewater associated with demolition activities;[26] groundwater infiltration; and previously monitored hydrostatic test wastewater. LDEQ addresses toxicity associated with this category of wastewater by screening toxicity information provided in the application prior to discharge to waters of the state. As required by 40 CFR 122.44(d)(1)/LAC 33:IX.2707.D.1., the existing discharge was evaluated in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, October 26, 2010 (water quality implementation plan).[27] According to the water quality implementation plan, any parameter that demonstrates reasonable potential to exceed water quality standards will have water quality based limitations established in the permit with an accompanying compliance schedule. For Outfall 003, analytical results from the permittee's application were screened against state water quality numerical standard based limits. As a result of the screen, no parameters demonstrated reasonable potential to cause exceedance of water quality standards; therefore, no water quality based limitations were required. Calculations, results, and documentation are given in the Fact Sheet for the draft permit, Appendix B.[28]

ISSUE #3 *TEMPERATURE ISSUES*

Allowing a 97 degree Fahrenheit discharge into the Houston River from each outfall cannot be excused by mathematical gymnastics. That hot water creates a thermal curtain that blocks

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[24] Miscellaneous Non-Process Wastewaters - The permittee identified a group of low contamination potential wastewater types that can be discharged through Outfalls 003, 004, and 005. These wastewaters are listed as miscellaneous non-process wastewaters in the outfall descriptions. Miscellaneous non-process wastewaters include, but are not limited to, firewater system water including testing and firefighting activities (without foam); emergency eyewash and shower stations testing and use; line flushing (potable water, including disinfection, or other non-process service lines); routine pavement, pad, building, and equipment washdown waters (without soaps and detergents); uncontaminated condensate from air conditioners, coolers, and other compressors and atmospheric condensate generated on the outside of storage tanks and equipment; drainage from the irrigation of vegetation and landscaping; uncontaminated groundwater, including pressure relief water from the groundwater supply wells or purged uncontaminated groundwater from monitoring wells; groundwater well maintenance wastewater; freeze protection water; vehicle rinsewater (no soaps and detergents); dust suppression water; noncontaminated water removed from electrical vaults; water from hydroblast excavation activities (hydro-tunneling in non-contaminated soil using non-contaminated water sources); and de minimis leaks from the potable water, cooling water, utility water, or firewater service distribution system network pipelines.

[25] Low volume wastewaters include, but are not limited to, plant drains; cooling tower basin cleaning wastewater; seal water; boiler and steam condensates, including steam traps; boiler blowdown; boiler drains and turbine drains; laboratory and sampling stream drains; turbine condenser water box drains; and maintenance wastewater.

[26] Wastewater associated with demolition activities includes, but is not limited to, dust suppression water; and equipment washwater (no soaps or detergents) and rainwater from decommissioned and cleaned units.

[27] EDMS Document No. 7717002.

[28] See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Fact Sheet, Appendix B (EDMS Document No. 13216257, pages 130-134 of 172).

movements of fish and cooks their eggs.

A comprehensive sampling program with genomic analyses will likely show that the river's biome has been severed with surviving species upstream and downstream of the Entergy outfalls evolving separately. Creating such a schism likely diminishes rather than enhances biological diversity in the river itself as well as downstream since it flows into the West Fork of the Calcasieu River.

The outfalls from the two Nelson AI facilities are at most less than 4,000 feet apart which, in a sluggish stream like the Houston River which does have flow reversals with the tides (PDF Page 153), the "overlap" concept should not have been dismissed. The 16 degree shock between ambient river temperature and the 97 degree effluent allowable is important. With close to six million gallons a day of hot water coming from one Nelson plant and 7 million gallons a day from the other Nelson plant, the thermal curtain in the river is unavoidable and inexcusable.

Nearness to each other of the wastewater discharges of the coal-fired plant and the oil and gas-fired plant in a river that has tidal flow reversals creates an extra long residence time for the heat dumped.

What difference does it make? To the things trying to survive and reproduce in the Houston River, the hot water does more than suppress the amount of oxygen they available for respiration. Take, for example: the temperatures gaspergou prefer for spawning are around 65 degrees Fahrenheit. Sac-a-lait prefer even cooler water, 56 degrees Fahrenheit.

Thirteen million gallons a day of water at 97 degrees Fahrenheit allowed 24 hours a day, winter, spring, summer, and fall, no wonder what used to be a beautiful popular fishing area is now almost devoid of fish and fisherman. [29,30]

* * *

The temperature of the water coming out at this discharge is not even close to the ambient temperature in the waterway, and how that has affected all the biological life in the river downstream from this facility, I don't think has been adequately...even in the EAS, I don't think it's been adequately determined. And maybe it can't be because it's been going on for so long.

The impacts over 30 years of this plant operating--- and I love electricity, so let's not get sideways....if the DEQ is going to continue to issue permits, we need to have them completely comply with the permit conditions. The permit conditions do not even include measuring temperature and keeping within range of ambient temperature of the river...then I think that's a

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[29] Written statement from M. Tritico on behalf of Restore Explicit Symmetry To Our Ravaged Earth (RESTORE) (EDMS Document No. 13326206).

[30] M. Tritico on behalf of Restore Explicit Symmetry To Our Ravaged Earth (RESTORE); Hearing Package for the public hearing held Thursday, June 16, 2022 for Entergy Louisiana, LLC/Roy S. Nelson (EDMS Document No. 13399853, pages 23-28 and 42-43 of 43).

huge oversight and should be addressed prior to issuing this renewal permit.[31]

LDEQ RESPONSE TO ISSUE #3

The Federal Clean Water Act, §305(b), requires states to monitor and report on water quality conditions. To comply with this requirement, LDEQ operates the Ambient Surface Water Quality Monitoring Network Program. The purpose of this program is to characterize ambient surface water quality conditions and collect data to make water quality standards attainment decisions. The LDEQ Office of Environmental Assessment uses this data to develop the state's biennial Integrated Report. The Integrated Report plays a key role in the assessment of the state's waterbodies, the development of Total Maximum Daily Loads (TMDLs), and in the development of LPDES permits. The discharges from the Nelson Coal Unit 6 plant are to Subsegment 030806, Houston River – from Bear Head Creek at LA Highway 12 to West Fork Calcasieu River. Subsegment 030806 is not listed in LDEQ's Final 2020 Integrated Report (IR)[32] or in the Final 2022 IR as impaired for temperature.[33]

Regulations at LAC 33:IX.1113.C.4.b address temperature criteria. There are two types of temperature criteria: a temperature differential and a maximum temperature. The temperature differential is the maximum allowable increase in temperature above ambient conditions after mixing. The maximum temperature represents the highest temperature allowed after mixing, except under natural conditions such as unusually hot and/or dry weather. Criteria listed at LAC 33:IX.1113.C.4.b.i for freshwater streams and rivers apply to the Houston River. These standards allow for a maximum rise of 2.8°C (5°F) above the ambient temperature after mixing, and a maximum temperature of 32°C (90°F). The maximum temperature increase and the maximum temperature are applied at the edge of the mixing zone rather than the point of discharge.[34]

As stated in the Fact Sheet, the current LPDES permit, effective on January 1, 2016, established a daily maximum temperature limitation of 97°F at Outfalls 002 and 003 based on similar permits and mixing zone temperature calculations.[35] The same daily maximum temperature limitation was retained in a permit modification effective on July 30, 2020, based on similar permits and a mixing zone temperature calculation conducted for the permit modification.[36] Mixing zone temperature calculations were conducted for the renewal permit to determine if the proposed temperature limit would cause an impairment to the receiving stream. To be conservative, because cooling tower blowdown from Outfall 002 may be routed to the settling pond (Outfall 003) to further dissipate heat, a mixing zone temperature calculation was conducted using the 30-day maximum flow of

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31 J. Hiatt, oral statement; Hearing Package for the public hearing held Thursday, June 16, 2022 for Entergy Louisiana, LLC/Roy S. Nelson (EDMS Document No. 13399853, pages 21-23 of 43).

32 See LDEQ 2020 Integrated Report, EDMS Document No. 12785388.

33 See LDEQ 2022 Integrated Report, EDMS Document No. 13437098.

34 See LAC 33:IX.1115.C.

35 See LPDES Permit LA0059030, effective January 1, 2016 (EDMS Document No. 10023331, pages 11-13 of 100); and LPDES Draft Renewal Permit LA0059030 (EDMS Document No. 9694988, pages 73-74, 77-78, and 110-111 of 117).

36 LPDES Permit LA0059030 Draft Major Modification (EDMS Document No. 12090558, pages 31 and 61-62 of 71); and LPDES Permit LA0059030 Final Major Modification (EDMS Document No. 12290508).

5.723 MGD for Outfall 003 plus the 1.6 MGD maximum flow of cooling tower blowdown.[37] The mixing zone calculation indicated that the temperature limitation will not exceed the allowable temperature of the effluent or cause an impairment to the receiving stream. Therefore, the daily maximum temperature limit of 97°F for Outfalls 002 and 003 has been retained in the renewal permit. See Fact Sheet, Appendix B-6.[38]

Regarding a genomic analysis of the river's biome, the commenter did not provide study results or reference any existing historical studies. Compliance with the limitations included in the renewal permit is expected to be protective of the receiving stream. However, LDEQ will review any relevant existing studies that are submitted to the Department.

See Response to Issue #5 regarding potential for overlapping mixing zones.

ISSUE #4 *TEMPERATURE AND DISSOLVED OXYGEN ISSUES*

LDEQ has known for decades that Calcasieu River Subsegment 030806 cannot support its designated use of Fish and Wildlife Propagation. In fact, your own study team, headed by Kirk Manuel and including Emelise Cormier, two very capable and conscientious staff members, conducted an investigation in September of 2000 in which they confirmed that temperature is one of the three major factors in the Houston River not being able to sustain as acceptable dissolved oxygen level. Manmade influences were determined to be much more significant than natural factors.

In that investigation, your staff found the 68.3 degree temperature Fahrenheit upstream of the coal-fired plant outfall to be over 18 degrees Fahrenheit cooler than downstream of the outfall, 86.2 degrees Fahrenheit. (If I am not mistaken, at that time there was not the extra heat from the yet-to-be-built oil and gas-fired outfall). Now that there are two big hot water outfalls dumping into the water quality limited subsegment of the Calcasieu River the efficacy of LDEQ is even more disproved.[39]

LDEQ RESPONSE TO ISSUE #4

It is unclear which investigation the commenter is referring to, and no source references were provided by the commenter.

A mixing zone temperature calculation was conducted for Outfalls 002 and 003 to determine if the temperature limit would cause an impairment to the receiving stream. The mixing zone calculation

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[37] See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Fact Sheet, Appendix B-5 and Appendix B-6 (EDMS Document No. 13216257, pages 145-146 of 172).

[38] See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Fact Sheet, Appendix B-6 (EDMS Document No. 13216257, page 146 of 172).

[39] M. Tritico on behalf of Restore Explicit Symmetry To Our Ravaged Earth (RESTORE); Hearing Package for the public hearing held Thursday, June 16, 2022 for Entergy Louisiana, LLC/Roy S. Nelson (EDMS Document No. 13399853, pages 23-28 and 42-43 of 43).

indicated that the temperature limitation will not exceed the allowable temperature of the effluent or cause an impairment to the receiving stream.[40] See Issue #3 and Issue #5 for more information.

Subsegment 030806 is not listed in either LDEQ's 2020 IR or in the 2022 IR as impaired for temperature. However, dissolved oxygen (DO) is listed on both reports as an impairment for which a TMDL has been developed. Suspected sources of the dissolved oxygen impairment are natural sources, on-site septic systems, and agriculture.[41, 42]

As stated by the commenter, Nelson Coal Unit 6 is located adjacent to the Roy S. Nelson Oil & Gas Generating Plant (AI 7893; LPDES permit LA0005843). Nelson Coal Unit 6 started operating in 1982.[43] Modern operations began at the Roy S. Nelson Oil & Gas Generating Plant (Units 1-4) in 1988.[44] Therefore, both plants were existing in 2000. In fact, both plants were identified as point source discharges in the *Houston River Watershed TMDL for Biochemical Oxygen-Demanding Substances* (revised December 5, 2001)[45] and in *TMDLs for Dissolved Oxygen for the Calcasieu Estuary* (finalized on July 1, 2002).[46]

The following TMDLs have been completed to date for dissolved oxygen in Subsegment 030806:

Houston River Watershed TMDL for Biochemical Oxygen-Demanding Substances

Houston River Watershed TMDL for Biochemical Oxygen-Demanding Substances was revised December 5, 2001. Nelson Coal Unit 6 (LA0059030) and the Roy S. Nelson Oil and Gas Plant (LA0005843) were both identified in the discharger inventory of this TMDL. However, the TMDL indicated that the facilities would be included in the report for another TMDL already underway by a contractor (see *Calcasieu Estuary TMDL for Dissolved Oxygen* below).[47] Therefore, these facilities were not given an allocation in this TMDL and none of the Margin of Safety (MOS) for this TMDL has been allocated to these dischargers.

Calcasieu Estuary TMDL for Dissolved Oxygen

TMDLs for Dissolved Oxygen for the Calcasieu Estuary was finalized on July 1, 2002. Nelson Coal Unit 6 (LA0059030) and the Roy S. Nelson Oil and Gas Plant (LA0005843) were both identified in Appendix J of the TMDL as point source discharges in the Calcasieu Estuary, specifically the Houston River. The facilities were not given an allocation for oxygen demanding pollutants in the TMDL and none of the MOS for this TMDL has been allocated to these dischargers. According to

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40 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Fact Sheet, Appendix B-5 and Appendix B-6 (EDMS Document No. 13216257, pages 145-146 of 172).
41 See LDEQ 2020 Integrated Report, EDMS Document No. 12785388.
42 See LDEQ 2022 Integrated Report, EDMS Document No. 13437098.
43 LPDES permit renewal application dated July 2, 2020, (EDMS Document No. 12245198, page 7 of 572).
44 LPDES permit renewal application for LA0005843 dated July 2, 2020, (EDMS Document No. 12245203, page 7 of 560).
45 See EDMS Document No. 2168951.
46 See EDMS Document No. 10712777.
47 See EDMS Document No. 2168951.

the TMDL report, "Attainment of the DO criteria for the subsegments modeled in this study will require focused management of nonpoint sources. The implementation of this TMDL through wastewater discharge permits and implementation of best management practices to control and reduce runoff of soil and oxygen-demanding pollutants from nonpoint sources in the watershed will also control and reduce the nutrient loading from those sources."[48] Regarding Nelson Coal Unit 6, limits for TOC[49] and BOD_5[50] have been maintained from the previous permit and will provide control of oxygen demand from the facility.

The MOS portion of the TMDL for Subsegment 030806 accounts for future growth as well as modeling uncertainty. Examples of modeling uncertainties are modeling assumptions, lack of knowledge of the relationship between effluent limitations (loadings) and water quality response, amount of data available, and statistical analysis.

ISSUE #5 *POTENTIAL FOR OVERLAPPING MIXING ZONES*

Last year I submitted comments on the LPDES permit for the adjacent Entergy Roy S. Nelson Oil and Gas fired electricity generating plant. Although both Nelson plants discharge next to each other, LDEQ has accepted a concept that makes no sense, the two outfalls zones of influence "do not overlap" (PDF Page 91.) Last year I tried to point out that the tidal nature of the Houston River means that it sometimes reverses flow which significantly-increases the residence time of heat and other pollutants before they are actually mixed down to undetectable levels. I ask that the RESTORE comment letter on AI 7893 dated 08/30/2021 be made part of the record of comments on this draft permit also. [51, 52]

LDEQ RESPONSE TO ISSUE #5

LDEQ considered whether the mixing zones for the final outfalls for Roy S. Nelson Coal Unit 6 and the Roy S. Nelson Oil and Gas Generating Plant (AI 7893) overlap when preparing the working preliminary draft renewal LPDES permit for Roy S. Nelson Oil and Gas Generating Plant (AI 7893) in 2021. Entergy submitted a CORMIX[53] mixing zone study to LDEQ May 21, 2021.[54] Based on a review of the CORMIX study, the mixing zones for Roy Nelson Coal Unit 6 (AI 19588) Outfalls 002 and 003 and Roy S. Nelson Oil and Gas Generating Plant (AI 7893) Outfall 001 do not overlap.

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[48] See EDMS Document No. 10712777.

[49] TOC = total organic carbon

[50] BOD_5 = biochemical oxygen demand (5-day)

[51] Written statement from M. Tritico on behalf of Restore Explicit Symmetry To Our Ravaged Earth (RESTORE) (EDMS Document No. 13326206).

[52] Written statement from M. Tritico to LPDES Draft Permit LA0005843 for Entergy Louisiana, LLC/ Roy S. Nelson Oil and Gas Generating Plant on behalf of RESTORE (EDMS Document No. 12884153, pages 1-4 of 12).

[53] CORMIX = Cornell Mixing Zone Expert System: CORMIX is a USEPA-supported mixing zone model and decision support system for environmental impact assessment of regulatory mixing zones resulting from continuous point source discharges. The system emphasizes the role of boundary interaction to predict steady-state mixing behavior and plume geometry. See https://www.epa.gov/waterdata/cornell-mixing-zone-expert-system .

[54] Evaluation of Overlapping Mixing Zones at Nelson Facility Outfalls, CK Associates (EDMS Document No. 12748046, pages 8-39 of 56).

Therefore, the critical flow for the Houston River was used for biomonitoring and water quality calculations.

Streamflow data used for the permit limit calculations was provided by LDEQ's Water Planning and Assessment Division.[55] Tidal flow was considered in the streamflow calculations. Critical flow and harmonic mean flow determinations for tidal flows were conducted as described in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, October 26, 2010 (Water Quality Implementation Plan). LDEQ uses the "tidal prism" principle, with inputs of (1) the affected surface area (upstream of the point at which the determination is made), (2) the tidal range, and (3) the period of elapsed time covered by the tidal range to determine the "average or typical flow averaged over one tidal cycle."[56]

ISSUE #6 *EFFLUENT LIMITATIONS BASIS*

Not reassuring are some of the given sources for establishing the current permit limits: the "previously effective LPDES Permit," BPJ (best professional judgment," and an old letter from Dale Givens (part of the old Stream Control Commission staff of the 1970s) to Myron Knudsen (one of the early EPA Dallas staff members). It would be more comforting to hear that someone at LDEQ has kept up with scientific literature on the adverse effects of pollutants on aquatic biota but I suppose that is too basic to be considered relevant in environmental quality work. [57]

LDEQ RESPONSE TO ISSUE #6

The draft permit limits are based on either technology-based effluent limits or on State water quality standards and requirements, whichever are more stringent. Section X of the Fact Sheet contains a rationale for the effluent limitations assigned to types of wastewaters at each outfall.[58] EPA reviewed the preliminary draft permit and had no objection to the permit limits.[59]

The effluent limitation sources listed by the commenter are all sources of technology-based effluent limitations established in the permit. Therefore, only technology limits are discussed in this section. Regulations require technology-based effluent limitations to be placed in LPDES permits based on:

- effluent limitations guidelines, where applicable;
- on best professional judgement (BPJ) in the absence of guidelines; or
- on a combination of the two.

The majority of pollutants in the process wastewater discharges from Outfalls 002, 003, and 005

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[55] See EDMS Document No. 11717990.
[56] See EDMS Document No. 7717002.
[57] Written statement from M. Tritico on behalf of Restore Explicit Symmetry To Our Ravaged Earth (RESTORE) (EDMS Document No. 13326206).
[58] See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Fact Sheet, Section X (EDMS Document No. 13216257, pages 93-109 of 172).
[59] See EDMS Document No. 13186457.

are regulated under Federal Guidelines, 40 CFR 423, Steam Electric Power Generating Point Source Category. The renewal permit has been developed to incorporate EPA's 2015 and 2020 revisions to the Federal Guidelines.[60] EPA established the effluent limitations guidelines (ELGs) for the Steam Electric Power Generating Point Source Category (40 CFR 423).[61] EPA reviewed the preliminary draft permit and had no objection to the permit limits.[62]

The remaining pollutants were retained in the permit based upon best professional judgment (BPJ) utilizing the previous permit;[63] LDEQ stormwater guidance;[64] the LPDES Multi-Sector General Permit (MSGP) for Stormwater Discharges Associated with Industrial Activities (LAR050000);[65] the LPDES Hydrostatic Test Wastewater General Permit (LAG670000);[66] the LPDES Class II Sanitary General Permit (LAG540000);[67] and existing permits for steam electric generating facilities that protect against adverse environmental effects.

In accordance with LAC 33:IX.2707.L, limitations and requirements established in the renewal permit must be at least as stringent as the previously effective permit (unless the circumstances on which the previous permit were based have changed from the time the previous permit was issued). Therefore, limitations and requirements included in the renewal permit were compared to the previous permit. Where effluent guidelines are not applicable, LDEQ consistently uses technology-based limitations based on currently effective LPDES general permits for similar wastewaters. For example, the limitations and requirements established in the permit for hydrostatic test wastewater are based on the LPDES Hydrostatic Test Wastewater General Permit (LAG67000). LPDES general permits are renewed every five years and changes or updates are made to the permits, as needed, based on current information. The draft master general renewal permit goes through a public notice period where members of the public or other state and federal agencies can submit comments to the draft permit. The effluent limitations contained in LPDES general permits have been reviewed by EPA and have been shown to be protective of the receiving waterbodies. Additionally, existing permits for other steam electric facilities that protect against adverse environmental effects may be used as sources of technology-based effluent limitations.

In regard to effluent limitations based on the Givens letter,[68] a daily maximum TOC limitation has been applied at Outfalls 003, 004, and 005 based on LDEQ's stormwater guidance (letter dated 06/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6)). The TOC limitation established in the permit is consistently applied by LDEQ to similar discharges of stormwater and miscellaneous wastewater at other industrial facilities. The limitation is also consistent with the

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60 See LPDES Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Plant (Coal Unit 6), Fact Sheet, Section IX (EDMS Document No. 13216257, pages 89-91 of 172).

61 https://www.govinfo.gov/content/pkg/CFR-2021-title40-vol31/pdf/CFR-2021-title40-vol31-part423.pdf

62 See EDMS Document No. 13186457.

63 See EDMS Document No. 10023331 and major modification EDMS Document No. 12290508.

64 See EDMS Document No. 6341434 (letter dated 06/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6)).

65 See EDMS Document No. 12959823; minor mod 1 EDMS Document No. 13036193; and minor mod 2 EDMS Document No. 13208733.

66 See EDMS Document No. 11039202.

67 See EDMS Document No. 11261591.

68 See EDMS Document No. 6341434 (letter dated 06/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6)).

daily maximum TOC limitation included in the LPDES Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities (MSGP), LAR050000, effective October 27, 2021.[69] This limitation has been shown to be protective of water quality, because the facility must meet TOC levels that are equivalent to those for uncontaminated stormwater. LAC 33:IX.2707.D.1.f.iii allows the establishment of effluent limitations based on an indicator parameter for pollutants of concern. LDEQ has determined that TOC monitoring captures the presence of oxygen demanding substances and potential organic constituents typically associated with this type of wastewater.

As in all LPDES permits, a reopener clause has been included in the permit to allow for more stringent limitations or requirements should they be necessary in the future.

See Responses to Issues #13 and #15 for additional information regarding the development of effluent limitations and monitoring requirements for the renewal permit. Additionally the accompanying *Basis for Decision* document includes a detailed explanation for the effluent limitations.[70]

ISSUE #7 *TEMPERATURE MONITORING REQUIREMENTS*

The company managed to get LDEQ to delete the continuous temperature recording device and replace it with a grab sample (PDF Page 165), and even that sample can be suspended if there is no routing to Outfall 003 of cooling tower blowdown. Surely a continuously-recording thermometer at every outfall is not beyond the financial capabilities of Entergy.

The permit allows Entergy to stop using continuous temperature recording devices and just do grab samples when they decide to do them. [71, 72]

LDEQ RESPONSE TO ISSUE #7

The commenter incorrectly asserts that continuous temperature recording devices have been deleted in the renewal permit. The previous LPDES permit, effective January 1, 2016, did not include a sample type of "continuous temperature recording device" at Outfall 002 or Outfall 003. The monitoring frequency and sample type of daily by grab sample for temperature at Outfalls 002 and 003 in the renewal permit were retained from the LPDES permit effective January 1, 2016.[73]

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[69] See EDMS Document No. 12959823, Section 3.2.1.

[70] See LDEQ's *Basis for Decision, Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Plant (Coal Unit 6), Permit No. LA0059030*, Section IV.B4.b.

[71] Written statement from M. Tritico on behalf of Restore Explicit Symmetry To Our Ravaged Earth (RESTORE) (EDMS Document No. 13326206).

[72] M. Tritico on behalf of Restore Explicit Symmetry To Our Ravaged Earth (RESTORE); Hearing Package for the public hearing held Thursday, June 16, 2022 for Entergy Louisiana, LLC/Roy S. Nelson (EDMS Document No. 13399853, pages 23-28 and 42-43 of 43).

[73] LPDES Draft Permit LA0059030, Fact Sheet, Section X, Rationale (EDMS Document No. 13216257, pages 95-101 of 172); Appendix C, Previous Permit Effluent Limits (EDMS Document No. 13216257, pages 154-162 of 172); and Appendix D, Facility Comments (EDMS Document No. 13216257, page 165 of 172).

The commenter referenced EDMS Document page 165 of the draft permit package.[74] Page 165 includes a comment from Entergy in response to a technical review of the working preliminary draft permit. The comment refers to a sample type of "temperature monitoring device" listed on the permit effluent limitations page for Outfall 002 in the working preliminary draft.[75] This sample type is not a requirement for a continuous temperature recording device. The sample type listed on the permit requirements page for Outfall 002 did not match the sample type (grab sample) listed in the Fact Sheet rationale for the working preliminary draft permit or the sample type (grab sample) listed in the previous LPDES permit.[76] The sample type was corrected on the permit requirements page.

The discharge from Outfall 003 consists primarily of stormwater runoff. Cooling tower blowdown is the primary wastewater routed to the pond at Outfall 003 that is a source of heat. Therefore, temperature sampling is required during daily discharges when cooling tower blowdown is routed to the settling pond and discharged through Outfall 003.

Regarding the sample type, there are requirements in Part III of the permit – Standard Conditions for LPDES Permits (Standard Conditions or Part III) that establish standards for taking a grab sample. The grab sample taken by the facility must be representative. The term "grab sample" is defined in Part III.F.13 of the permit as "Grab sample means an individual sample collected over a period of time not exceeding 15 minutes, unless more time is needed to collect an adequate sample, and is representative of the discharge." Part III, Section C – Monitoring and Records, includes requirements for sampling and recordkeeping. Part III.C.2 – Representative Sampling, states "Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity." Part III.C.3 and 4 include requirements for records. Records of monitoring information shall include: a. The date, exact place, and time of sampling or measurements; b. The individual(s) who performed the sampling or measurements; c. The date(s) analyses were performed; d. The time(s) analyses were begun; e. The individual(s) who performed the analyses; f. The analytical techniques or methods used; g. The results of such analyses; and h. The results of all quality control procedures. Records are to be maintained for three years from the date of the sample."[77]

ISSUE #8 *COMPLIANCE DATE FOR REVISED STEAM ELECTRIC GUIDELINES*

A regulation that is held in abeyance until 12/31/2025 (PDF Pages 19, 20, etc.) is a perfect example of how the regulatory community is a puppet of the regulated community.[78]

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[74] LPDES Draft Permit LA0059030, Fact Sheet, Appendix D, Facility Comments (EDMS Document No. 13216257, page 165).
[75] LPDES Draft Permit LA0059030, Fact Sheet, Appendix D, Facility Comments (EDMS Document No. 13216257, page 165 of 172).
[76] LPDES Draft Permit LA0059030, Fact Sheet, Section X, Rationale (EDMS Document No. 13216257, pages 95-96 of 172); Appendix C, Previous Permit Effluent Limits (EDMS Document No. 13216257, pages 156-158 of 172); and Appendix D, Facility Comments (EDMS Document No. 13216257, page 165 of 172).
[77] LPDES Draft Permit LA0059030, Part III, Sections C and F (EDMS Document No. 13216257, pages 69 and 79 of 172).
[78] Written statement from M. Tritico on behalf of Restore Explicit Symmetry To Our Ravaged Earth (RESTORE) (EDMS Document No. 13326206).

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LDEQ must modify the draft permit to eliminate bottom ash wastewater discharges "as soon as possible," as required by EPA's ELG rule.

[T]he draft permit allows Nelson to continue discharging without limitation until December 31, 2025. After that date, the draft permit purports to establish a site specific Best Technology Available limitation on the volume of bottom ash purge water that can be discharged. ... [E]lectric generating units (EGUs) like Nelson are capable of complying with the rule within just a few years, and certainly before EPA's final 2025 compliance date, and LDEQ has failed to provide site-specific data demonstrating that Nelson cannot meet an earlier deadline.

LDEQ must eliminate bottom and fly ash discharges from Nelson as soon as possible to protect vital water resources. *... The harm to streams, aquatic life and stream-dependent wildlife, and human health is well established and merits immediate attention. Any decision to unnecessarily delay eliminating this waste stream from the Houston River basin is an affirmative decision to allow that harm to continue. ... EPA has demonstrated that application of the zero-discharge standard for ash discharges will improve groundwater and surface water quality and will reduce impacts to wildlife, human health cancer risk and non-cancer effects, and nutrient impacts. Because the discharges cause so much harm and because the ELGs provide so many benefits, LDEQ has a duty to rigorously evaluate any request to extend the compliance date and must be precise about just how much it should be extended, if at all, given the specific circumstances.*

EPA's plans to revisit the ELG Rule provides no lawful basis for state permitting agencies to delay compliance with the ELG rule beyond the latest possible date of December 2025. *... [I]n August 2021, EPA published a notice of rulemaking, indicating that the agency intends to determine whether more stringent limitations and standards are appropriate consistent with the technology-forcing statutory scheme and the goals of the Clean Water Act. ... [T]he proposed rulemaking makes clear that the current rule and compliance deadlines remain in effect, despite the agency's ongoing reconsideration process. ... EPA's proposed reconsideration does not in any way change the factors set forth in 40 C.F.R. § 423.11(t) that LDEQ is required to consider when establishing an "as soon as possible" date for compliance.*

[P]ermitting authorities have uniformly concluded that the mere fact that EPA has announced an intention to reconsider the ELG does not provide a basis for delaying compliance. ... Given that Entergy itself does not contend that it cannot meet the bottom ash limitations more expeditiously than 2025, the speculative possibility that EPA could revise the rule provides no basis for LDEQ to require the latest possible compliance date for bottom ash discharges at Nelson.

Nelson has wholly failed to show that it needs until 2025 to eliminate discharges of ash transport water, and LDEQ's proposed permit does not reflect the "expeditious planning" required by EPA. *... [T]he draft permit and permit file are devoid of any evaluation of the time necessary for*

Nelson to eliminate ash water discharges, let along any evidence that the company is actually planning to comply with the rule. There is no mention of a compliance date, let alone information indicating that the company cannot design, procure, and retrofit its operations prior to December 31, 2025.

It is true that the final ELG Rule allows for "other factors as appropriate" to be considered in establishing a later compliance date. But this provision does not excuse Nelson from eliminating bottom ash discharges "as soon as possible." As an initial matter, the permit file contains no evaluation of any of the other mandatory factors. Utilities like Entergy have spent years preparing for the ELGs, and there is no reason Nelson cannot do the same. ... EPA's announced reconsideration of the ELG Rule, and its potential issuance of more stringent limitations, provides no lawful basis for state permitting agencies to require compliance by the latest possible date of December 31, 2025. A regulated entity may not avoid compliance with a final and effective rule simply because an agency might someday revise the regulation. Such a rule could effectively insulate regulated entities from compliance with any regulation. ... Moreover, as reflected in the attached technical comments of Dr. Sahu, technical solutions to comply with the ELG Rule readily available and can be implemented in 3 years or sooner. ... [T]here is nothing in the record to show that there are any unique technical issues at Nelson that would prevent currently available technologies, which have been implemented throughout the country.

[T]he record also makes clear that LDEQ arbitrarily and unlawfully failed to consider EPA's mandated regulatory factors for determining a compliance date. ... Aside from purporting to consider "other factors as appropriate," LDEQ arbitrarily and unlawfully failed to evaluate any of the other factors that the ELG Rule requires permitting authorities to consider. ... LDEQ's proposed LPDES permit Nelson, which imposes no timeline for compliance, does not reflect any consideration of any of the ELG compliance factors, and thus fails to rationally conclude that December 2025 is the soonest possible compliance deadline. LDEQ's failure to consider the regulatory factors in setting a compliance deadline is arbitrary and capricious. ... LDEQ may respond that the ELG's reference to "other factors as appropriate" somehow insulates the agency from compliance with the rule because EPA may decide to amend the rule. But under that approach, those vague "other" factors essentially swallow the rule. ... LDEQ's singular focus on "other factors as appropriate" impermissibly renders the remaining factors meaningless, and conflicts with the Clean Water Act's statutory goal that all water pollution from point sources "be eliminated by 1985." 33 U.S.C. § 1251(a)(1). ... [T]here is no factual basis for LDEQ's conclusion that a more expeditious compliance deadline than 2025 is not possible. Instead, LDEQ is apparently taking a wait-and-see approach while EPA reconsiders the ELG rule. As explained above, that is not a legally adequate justification.

There is compelling evidence that facilities like Nelson can, in fact, comply with the ELG Rule within approximately two years, well before the last-possible compliance deadline of December 2025. *As explained in the technical comments of Dr. Sahu, numerous industry studies show that conversion to dry bottom ash handling can be accomplished in 27-33 months, and a significant number of existing coal-fired power plants already have zero discharge systems. ... Moreover, in*

other NPDES permit renewal proceedings, permitting authorities across the country have proposed or finalized earlier compliance deadlines for bottom ash limits, demonstrating that it is, as a general matter, feasible for plants to achieve earlier compliance.

For all the reasons above, LDEQ must revise the ELG compliance schedule proposed in the draft permit. The revised schedule must reflect the Department's careful, independent, and critical analysis of the regulatory factors and any technical submission, including assessments by qualified engineers. Based on the attached technical comments of Dr. Sahu, Sierra Club submits that December 2024, at the latest, would be a reasonable—and even generous—compliance date for Nelson to eliminate bottom ash transport water discharges. ...[G]iven the dearth of information provided by Nelson, there is no way for our groups, other members of the public, or LDEQ to meaningfully evaluate whether an earlier date would be possible in accordance with 40 C.F.R. §423.11(t).[79]

LDEQ RESPONSE TO ISSUE #8

Through this renewal permit action, the LDEQ authorizes Nelson Coal Unit 6 to discharge wastewater in accordance with the effluent limitations, monitoring requirements, best management practices (BMPs), and other conditions set forth in the permit. Compliance with the permit as issued is expected to be protective of the receiving waterbodies.

As stated in the Fact Sheet for the draft permit,[80] the renewal permit has been developed to incorporate EPA's revisions to the ELGs for the steam electric power generating point source category, which were published in the Federal Register in November 2015 and amended by the 2020 Rule, which was published in the Federal Register in October 2020.[81] In the 2015 revisions, the EPA established best available technology economically achievable (BAT) effluent limitations and standards for various wastewaters at steam electric plants: fly ash transport water, bottom ash transport water, flue gas mercury control wastewater, flue gas desulfurization (FGD) wastewater, gasification wastewater, and combustion residual leachate. The 2020 rule revised the ELGs for FGD wastewater and bottom ash transport water and created additional subcategories for these two wastewaters. There were no changes to the other wastewaters. The LPDES renewal permit LA0059030 authorizes the discharge of bottom ash transport water (generated before December 31, 2025); bottom ash purge water;[82] and combustion residual leachate from the Roy S. Nelson Electric Generating Plant (Coal Unit 6). Effluent limitations for combustion residual leachate are effective on the effective date of the permit.

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79 Written statement from J. Smith on behalf of Sierra Club (EDMS Document No. 13345295).

80 LPDES Draft Permit LA0059030, Fact Sheet, Section XIII (EDMS Document No. 13216257, page 111-116 of 172).

81 Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category, 80 Fed. Reg. 67838 (Nov. 3, 2015). See https://www.federalregister.gov/d/2015-25663 and 86 Fed. Reg. 64650 (October 13, 2020) https://www.federalregister.gov/documents/2020/10/13/2020-19542/steam-electric-reconsideration-rule

82 In accordance with 40 CFR 423.11(cc), the term "bottom ash purge water" means any water being discharged subject to 40 CFR 423.13(k)(2)(i) or 423.16(g)(2)(i).

The Nelson Coal Unit 6 facility does not generate fly ash transport water, as this facility uses a dry fly ash transport system. Fly ash is collected dry in hoppers, pneumatically transferred to storage silos, and subsequently sold or staged at the ash landfill which is located on site.[83] Therefore, requirements for fly ash transport water are not included in the permit.

LDEQ has complied with the Clean Water Act (CWA) and EPA's effluent limitations guidelines (ELGs) for the Steam Electric Power Generating Point Source Category (40 CFR 423)[84] in developing the permit. BAT limitations for bottom ash transport water (BATW) at 40 CFR 423.13 (k)(1)(i) state "...Dischargers must meet the discharge limitation in this paragraph by a date determined by the permitting authority that is as soon as possible beginning October 13, 2021, but no later than December 31, 2025." EPA established the requirements and guidelines for the bottom ash transport water ELGs, and EPA has reviewed the preliminary draft permit and had no objection to the compliance date.[85]

According to the application, Nelson Coal Unit 6 currently operates a wet sluice water system (bottom ash handling system). This system quenches hot ash and transports cooled bottom ash to an engineered cyclone filter (hydrobin) where the majority of the water is recovered and recycled back into the bottom ash handling system. Bottom ash transport water (BATW) is regulated under EPA's steam electric ELGs (40 CFR 423). Economizer and fly ash are also generated at the facility but are recovered dry in the combustion section of the boiler.[86]

EPA's ELGs for BATW in the steam electric category are found at 40 CFR 423.13(k). The 2020 Rule established revised BAT effluent limitations guidelines for BATW and added subcategories to the BATW guidelines for low utilization units and for those units that will cease combustion of coal by 2028. The specific set of limitations and compliance dates that apply to a particular facility are determined by which subcategory the facility falls within. To date, Entergy has not submitted a Notice of Planned Participation (NOPP) for Roy Nelson Coal Unit 6 seeking to qualify in the subcategory for low utilization units or the subcategory for those units that will cease combustion of coal by 2028. Therefore, generally applicable limitations under 423.13(k)(1) have been applied in the renewal permit. In accordance with 40 CFR 423.13(k)(1)(i), except for those discharges to which 40 CFR 423.13(k)(2) applies (bottom ash purge water), or when the BATW is used in the FGD scrubber, there shall be no discharge of pollutants in BATW generated on or after the compliance date.

EPA's current ELGs for steam electric facilities state that dischargers subject to the effluent limitations found in 40 CFR 423.13(k)(1) for BATW must meet the BAT effluent limitations by a date determined by the permitting authority that is as soon as possible beginning October 13, 2021, but no later than December 31, 2025. The "as soon as possible" date means October 13, 2021, for BATW unless the permitting authority establishes a later date after receiving site-relevant

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[83] LPDES permit renewal application dated July 2, 2020 (EDMS Document No. 12245198, pages 12-15 of 572).
[84] https://www.govinfo.gov/content/pkg/CFR-2021-title40-vol31/pdf/CFR-2021-title40-vol31-part423.pdf
[85] See EDMS Document No. 13186457.
[86] LPDES permit renewal application dated July 2, 2020 (EDMS Document No. 12245198, pages 12-15 of 572).

information from the discharger which reflects a consideration of the factors listed in 40 CFR 423.11(t):

(1) Time to expeditiously plan (including to raise capital), design, procure, and install equipment to comply with the requirements of this part.

(2) Changes being made or planned at the plant in response to:
  (i) New source performance standards for greenhouse gases from new fossil fuel-fired electric generating units, under sections 111, 301, 302, and 307(d)(1)(C) of the Clean Air Act, as amended, 42 U.S.C. 7411, 7601, 7602, and 7607(d)(1)(C);

  (ii) Emission guidelines for greenhouse gases from existing fossil fuel-fired electric generating units, under sections 111, 301, 302, and 307(d) of the Clean Air Act, as amended, 42 U.S.C. 7411, 7601, 7602, and 7607(d); or

  (iii) Regulations that address the disposal of coal combustion residuals as solid waste under sections 1006(b), 1008(a), 2002(a), 3001, 4004, and 4005(a) of the Solid Waste Disposal Act of 1970; as amended by the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. 6906(b), 6907(a), 6912(a), 6944, and 6945(a).

(3) For FGD wastewater requirements only, an initial commissioning period for the treatment system to optimize the installed equipment.

(4) Other factors as appropriate.

Compliance with the BATW guidelines is discussed in Section XIII of the Fact Sheet for the draft permit. As stated in the Fact Sheet,[87] Entergy included information as justification for a request for a later compliance date to meet the new effluent limitations with the renewal application submitted on July 2, 2020.[88] Entergy submitted information regarding uncertainty due to proposed revisions to the BAT limitations for BATW; a pending LPDES permit modification; and cost and time requirements for retrofitting or replacing the current bottom ash transport water system. Please note, EPA proposed revisions to the 2015 BAT requirements for flue gas desulfurization (FGD) wastewater and BATW on November 22, 2019. When the renewal application for Nelson Coal Unit 6 was submitted on July 2, 2020, the final 2020 rule had not been published. Additionally, a final determination for a draft LPDES permit modification rerouting cooling tower blowdown to Outfall 002 rather than through the bottom ash handling system was still pending. The permit modification to re-route cooling tower blowdown to Outfall 002 was approved with an effective date of July 30,

[87] LPDES Draft Permit LA0059030, Fact Sheet, Section XIII (EDMS Document No. 13216257, page 111-117 of 172).
[88] LPDES permit renewal application dated July 2, 2020, (EDMS Document No. 12245198, pages 17-21 of 572).

2020.[89] Additionally, the final 2020 revisions to the BAT limitations for FGD wastewater and BATW were published in the federal register on October 13, 2020, and became effective on December 14, 2020.[90]

LDEQ sent a letter to Entergy dated November 6, 2020, requesting additional information for the renewal application regarding the applicability of the 2020 revisions to the Nelson Coal Unit 6 facility.[91] Entergy submitted a response letter to LDEQ dated December 29, 2020, requesting an extension to submit the required information.[92] The December 29, 2020, letter detailed the steps Entergy is taking to evaluate the bottom ash handling system and determine what types of modification would be required; what types and volumes of purge water might be expected; and the timeline required to design and implement the changes. The letter also noted that a series of severe weather events in the second half of 2020 (Hurricanes Laura and Delta and Tropical Storm Beta) impacted Westlake, Louisiana and the Entergy electrical grid. Extensive repair work to the electrical grid and Coal Unit 6 was required. These events delayed the evaluation process. Entergy submitted updated additional information on May 3, 2021 (dated April 28, 2021); July 29, 2021 (letter dated July 23, 2021) and by email on October 20, 2021.[93] Additionally, Entergy submitted a bottom ash system preliminary evaluation on November 18, 2021.[94]

As stated above, the ELGs at 40 CFR 423.11(t) allow a later date within the compliance range, after receiving site specific information from the discharger. LDEQ reviewed the information submitted by Entergy, considering the factors listed in 40 CFR 423.11(t). Entergy did not submit any information regarding air emissions or solid waste regulations; therefore, Factor (2) was not considered. Nelson Coal Unit 6 does not discharge FGD wastewater; therefore, Factor (3) was not considered. LDEQ determined that Factors (1) and (4) were applicable to the Roy Nelson Coal Unit 6 facility. These factors require LDEQ to consider the time required by the facility to expeditiously plan, design, procure, and install equipment; and other factors as appropriate. The renewal permit includes EPA's BAT effluent limitations and standards for BATW as established in the 2020 Final Revised Rule. However, EPA published the final rule in the federal register on October 13, 2020, and the rule became effective on December 14, 2020. As noted above, this "other factor" affects the time to design, install, and optimize the treatment equipment. Further, the severe weather events of 2020 required Entergy to make extensive repairs to the power grid and Coal Unit 6. Therefore, evaluation of treatment systems; purge water types and volumes; and a timeline were delayed due to severe weather events relevant to this site, outside of Entergy's control. Additionally, EPA is undertaking a new rulemaking that may result in more stringent limitations. According to the EPA website, the EPA Administrator, Michael S. Regan, signed a proposed rule and notice of public hearing on March 7, 2023, and EPA is submitting it for publication in the Federal Register (FR).[95]

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[89] See EDMS Document No. 12290508.
[90] See 2020 Reconsideration Rule: https://www.epa.gov/eg/2020-steam-electric-reconsideration-rule.
[91] See EDMS Document No. 12439792.
[92] See EDMS Document No. 12516391.
[93] See EDMS Document Nos. 12716268, 12838188, and 12941297.
[94] See EDMS Document No. 13002947.
[95] See https://www.epa.gov/eg/steam-electric-power-generating-effluent-guidelines-2023-proposed-rule

Based on a review of the information submitted by Entergy, and EPA's proposed supplemental rulemaking, LDEQ has determined that Roy Nelson Coal Unit 6 shall meet the final BAT effluent limitations and requirements for BATW no later than December 31, 2025. December 31, 2025, is a valid and appropriate compliance date under EPA's steam electric ELGs for BATW, and was established considering all relevant site specific information, pursuant to 40 CFR 423.11(t). This time period for compliance was provided in order for the facility to budget, design, and construct the treatment system to meet the final EPA Effluent Guidelines. Additionally, the date selected may allow Entergy to learn of potential further changes to the ELG requirements prior to completion of modification and implementation of changes to the bottom ash handling system. In the event that the ELG requirements are changed, knowledge of those changes prior to completion of modifications may prevent the potentially needless expenditure of resources. The permittee is required to submit annual progress reports addressing progress toward attaining compliance with the "as soon as possible" ELG compliance date. As stated above, EPA reviewed the preliminary draft permit and had no objection to the compliance date.[96] Further, in accordance with Other Conditions, Paragraph S, the permit may be reopened to implement the final EPA Effluent Guidelines, and requirements may be added and/or removed as applicable.[97]

LDEQ reviewed the information and exhibits submitted on behalf of the commenter[98] in response to the public notice of the draft permit.

The commenter included a report by Dr. Sahu[99] which states that compliance with the no discharge prohibition of bottom ash transport water should be achieved within three years. Sierra Club asserts that based on Dr. Sahu's report, Nelson Coal Unit 6 should be able to achieve compliance by December 2024. However, the factors in 40 CFR 423.11(t) are site specific. Based on a review of the information provided by Entergy using the factors in 40 CFR 432.11(t), LDEQ determined that a compliance date of December 31, 2025 is appropriate for the Nelson Coal Unit 6 facility.

As part of their written statement, the commenter provided a list of draft permits and final permits from other states that include compliance deadlines for bottom ash transport water BAT limits that are earlier than December 31, 2025. EPA published a postponement of the earliest compliance dates for FGD wastewater and bottom ash wastewater in the Federal Register on September 18, 2017.[100] The 2020 Steam Electric Reconsideration Rule was published in the Federal Register in October 2020.[101] All but two of the draft or final permits on the list provided by Sierra Club were listed as issued prior to September 18, 2017.[102] Additionally, most of the example permits listed were final prior to the issuance of revised guidelines in 2020. Some of these facilities may have qualified to

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[96] See EDMS Document No. 13186457.
[97] LPDES Draft Permit LA0059030, Other Conditions, Paragraph S (EDMS Document No. 13216257, page 42 of 172).
[98] Written statement from J. Smith on behalf of Sierra Club (EDMS Document No. 13345295).
[99] Written statement from J. Smith on behalf of Sierra Club, June 20, 2022, Exhibit 1 (EDMS Document No. 13345295, pages 30-58 of 191).
[100] Postponement of Certain Compliance Dates for the Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category, 82 Fed. Reg. 43494 (Sept. 18, 2017). See https://www.federalregister.gov/d/2017-19821.
[101] See 2020 Reconsideration Rule: https://www.epa.gov/eg/2020-steam-electric-reconsideration-rule.
[102] J. Smith on behalf of the Sierra Club: written statement, June 20, 2022, pages 15-16 (EDMS Document No. 13345295, pages 15-17 of 191).

request a permit modification based on 2020 revisions to the ELGs under 40 CFR 122.62(a)(3).[103] A quick scan shows that at least two of the facilities listed (Belews Creek Steam Station, NC0024406[104] and Marshall Steam Station, NC0004987[105]) requested permit modifications to authorize discharges of bottom ash purge water when the FGD scrubber is not available.

EPA expects permitting authorities to continue to implement the current regulations while the Agency undertakes a new rulemaking, and LDEQ has done so, implementing the steam electric facility ELGs into this permit.[106] Based on a review of the information provided by Entergy, and considering 40 CFR 423. 11(t), the time period for compliance was provided in order for the facility to budget, design, and construct the treatment system to meet the final EPA Effluent Guidelines. As noted above, a re-opener clause is also included in the permit. For all of reasons described, there no changes made to the compliance date in the final permit.

See the Fact Sheet for the draft permit[107] and the accompanying *Basis for Decision* document[108] for a detailed discussion of the consideration of compliance dates for EPA's revised steam electric ELGs.

ISSUE #9 *BOTTOM ASH PURGE WATER LIMITATIONS*

LDEQ's proposed ten percent bottom ash purge exemption is not adequately supported by the record, and the exception actually allows Entergy to discharge three times its total system volume of bottom ash wastewater, effectively negating the ELG Rule's mandate to eliminate bottom ash discharges.

There is insufficient documentation in the record to support or verify LDEQ's proposed bottom ash purge allowance, which essentially exempts Nelson from compliance with the ELG Rule. Even if such an exemption were permissible, there is (again) no site-specific data demonstrating that Nelson cannot meet that limitation on an earlier timeline.

LDEQ's proposed ten percent bottom ash purge exemption is not supported by the record. *... Rather than requiring the elimination of bottom ash wastewater, as contemplated by the ELG Rule and as Entergy admits is possible, the Draft Permit proposes, based on 40 C.F.R. § 423.13(k)(2)(i), that the total volume of the discharge to the settling pond shall not exceed a 30-day rolling average of ten percent of the primary active wetted bottom ash system volume. Based on a calculated bottom ash transport system volume of 711 ,059 gallons, the 10-day rolling average discharge shall not*

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[103] See Federal Register, Volume 85, October 13, 2020, page 64706.
[104] See https://deq.nc.gov/media/18280/download.
[105] See https://edocs.deq.nc.gov/WaterResources/DocView.aspx?id=2286501&dbid=0&repo=WaterResources
[106] See 86 FR 41801 (August 3, 2021) and https://www.epa.gov/system/files/documents/2023-03/Prepublication%20FRN_OW_Steam%20Electric%20ELG_NPRM_03_07_2023_1.pdf (page 218 of 285).
[107] LPDES Draft Permit LA0059030, Fact Sheet, Section XIII (EDMS Document No. 13216257, page 111-117 of 172).
[108] See LDEQ's *Basis for Decision, Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Plant (Coal Unit 6), Permit No. LA0059030*, Section IV.B.4.b.

exceed 0.071 MGD. ... This proposed bottom ash purge exemption is unlawful for several reasons.

First, Entergy effectively admits that it is possible to meet a zero-discharge limit at Nelson. LDEQ fails to grapple with, or evaluate this fact, in determining whether a ten percent discharge exemption is appropriate.

Second, LDEQ's permit fails to demonstrate that such a purge exemption is actually necessary or appropriate. As EPA makes clear in the final ELG Rule and preamble, the ten-percent bottom ash discharge limitation is appropriate only under [certain] conditions. ... Here, LDEQ's Draft Permit fails to make any finding or provide record support for the conclusion that a ten percent bottom ash purge exemption is necessary to satisfy any of those conditions. In fact, the record does not mention conditions 2 through 4. Although the Fact Sheet refers obliquely to the potential for storm damage and precipitation, the record does not include the "site-specific" analysis demonstrating that any of the mandatory regulatory conditions for a ten percent purge exemption are actually satisfied. Without that demonstration, neither the public nor LDEQ can ensure that such purges are limited to the regulatory conditions precedent to any purge. ... If LDEQ does include a ten percent purge allowance (and the agency should not), the final permit must make clear that the limitation applies only during qualifying storm events, and the permit should further require Entergy to monitor and report any such purge events with detailed explanations of the reasons for any purge and the amount of wastewater discharged and the period during which the discharges occur.

Third, LDEQ fails to include in the record sufficient data or analysis demonstrating that the specific purge limitations for Nelson are appropriate, and therefore the public has no way of verifying or evaluating the limitation. As an initial matter, the ten percent purge allowance is made on a case-specific basis, using the "volume of the system." Based on redacted data submitted by Entergy, the Draft Permit proposes, based on a calculated bottom ash transport system volume of 711,059 gallons, the 10-day rolling average discharge shall not exceed 0.071 MGD. But because Entergy refused to submit the facility specifications and parameters to support those calculations, there is no way for the public or LDEQ to verify that those calculations are correct. Moreover, by deferring to Entergy's unsubstantiated calculation of the volume of the system, LDEQ creates a perverse incentive for the operator to maximize its calculated volume, thereby giving the facility as much head room for discharge as possible. Given the absence of this basic "site-specific" information about the volume of the system, and thus the potential for discharge, the Draft Permit's specific bottom ash purge allowance is arbitrary and unsupported.

Finally, LDEQ's purge exemption fails to require the reduction or elimination of such purges to the "extent achievable," as required by EPA regulations. In fact, the proposed exception actually allows Entergy to discharge as much as three times its total system volume in a single month, effectively negating the ELG Rule's mandate to eliminate bottom ash discharges. ... That loophole effectively negates the Clean Water Act's mandate to eliminate pollution discharge. .... Moreover, that approach cannot reasonably be characterized as requiring the reduction or elimination of such discharges to the "extent achievable."

[I]f LDEQ does include a ten percent purge allowance (and the agency should not), the final permit must make clear that the limitation applies only during qualifying storm or precipitation events, and the permit should further require Entergy to monitor and report any such purge events with detailed explanations of the reasons for any purge and the amount of wastewater discharged and the period during which the discharges occur.[109]

LDEQ RESPONSE TO ISSUE #9

LDEQ has complied with the Clean Water Act (CWA) and EPA's effluent limitations guidelines for the Steam Electric Power Generating Point Source Category (40 CFR Part 423)[110] in developing the permit. A compliance date of December 31, 2025 is valid and appropriate and ten percent is a valid and appropriate limitation under EPA's steam electric ELGs for BATW found at 40 CFR 423.13(k). 40 CFR 423.13 (k)(1)(i) states "Except for those discharges to which paragraph (k)(2) of this section applies (bottom ash purge water), or when the bottom ash transport water is used in the FGD scrubber, there shall be no discharge of pollutants in bottom ash transport water. Dischargers must meet the discharge limitation in this paragraph by a date determined by the permitting authority that is as soon as possible beginning November 1, 2020, but no later than December 31, 2025." Additionally, 40 CFR 423.13 (k)(2)(i)(B) states " ...The total volume of the discharge authorized in this subsection shall be determined on a case-by-case basis by the permitting authority and in no event shall such discharge exceed a 30-day rolling average of ten percent of the primary active wetted bottom ash system volume." This permit establishes a site specific BAT[111] limitation of ten percent on the volume of bottom ash purge water[112] that can be discharged, with a compliance date of December 31, 2025. EPA established the requirements and guidelines for the BATW and bottom ash purge water ELG; EPA reviewed the preliminary draft permit and had no objection to the site specific BAT limitation on the volume of bottom ash purge water that may be discharged or the compliance date.[113]

According to the preamble for the 2020 revisions, there is no across-the-board formula for determining appropriate purge limitations, as long as the bottom ash purge volume does not exceed ten percent of the primary active wetted bottom ash system volume[114] on a 30-day rolling average basis.[115] The limitation for Nelson Coal Unit 6 is based on a review of the information provided by

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109 Written statement from J. Smith on behalf of Sierra Club (EDMS Document No. 13345295).

110 https://www.govinfo.gov/content/pkg/CFR-2021-title40-vol31/pdf/CFR-2021-title40-vol31-part423.pdf

111 BAT = best available technology economically achievable

112 In accordance with 40 CFR 423.11(cc), the term "bottom ash purge water" means any water being discharged subject to 40 CFR 423.13(k)(2)(i) or 423.16(g)(2)(i).

113 See EDMS Document No. 13186457.

114 In accordance with 40 CFR 423.11(aa), the term "primary active wetted bottom ash system volume" means the maximum volumetric capacity of bottom ash transport water in all non-redundant piping (including recirculation piping) and primary bottom ash collection and recirculation loop tanks (e.g., bins, troughs, clarifiers, and hoppers) of a wet bottom ash system, excluding the volumes of surface impoundments, secondary bottom ash system equipment (e.g., installed spares, redundancies, maintenance tanks), and non-bottom ash transport systems that may direct process water to the bottom ash.

115 See Federal Register, Volume 85, October 13, 2020, page 64705.

Entergy regarding the allowable discharges, as explained in the Fact Sheet for the draft permit. For example, the Westlake area may be affected by heavy rain events and storms such as Hurricane Laura in 2020. Additionally, when system modifications to maximize recirculation are implemented, water chemistry issues with TSS[116] and pH can occur which require purging to maintain system operation and maintenance. The primary system chemistry concern is the buildup of bottom ash fines (suspended solids) in the recirculating transport water. Fines are ash particles smaller than 75 um in size that may concentrate in the bottom ash system. Another system chemistry concern is the scaling or corrosivity of the bottom ash transport water in high recycle systems. Constituents in the ash can create an acidic water chemistry. In order to prevent the system from reaching an acidic chemical equilibrium, water in the system needs to be discharged and replaced with fresh water.[117] Discharges may also occur during maintenance events which require the bottom ash system to be partially or entirely drained and the water cannot be managed by tanks or other equipment on site; or due to regular inflows from boiler blowdown and stormwater.[118]

The following excerpt is from the Fact Sheet for the draft permit:[119]

> "Entergy submitted updated additional information on May 3, 2021 (dated April 28, 2021; EDMS Document No. 12716268); July 29, 2021 (letter dated July 23, 2021; EDMS Document No. 12838188) and by email on October 20, 2021 (EDMS Document No. 12941297). Additionally, Entergy submitted a bottom ash system preliminary evaluation on November 18, 2021 (EDMS Document No. 13002947). According to the information, Nelson 6 has a high recycle rate bottom ash system that does not function as a zero-discharge system. Following the diversion of the cooling tower blowdown, the bottom ash system is able to reuse and recycle bottom ash sluice water and other incoming streams under most conditions. However, intermittent discharges can occur during the following conditions listed as allowable sources of purge water in 40 CFR 423.13(k)(2)(i)(A)(1-4): extreme rain events; maintenance events (e.g., the potential draining of piping and equipment or the entire system for repair, reconditioning, and inspection); as a result of regular inflows of non-bottom ash transport wastewaters (e.g., boiler blowdown); and associated with maintaining water chemistry and safe operation of the boiler. Water that is not recovered and sent back to the bottom ash handling system flows to the Settling Pond for treatment and discharge through Outfall 003 to the Houston River. The letter states that even with the flow reduction achieved by segregating cooling tower blowdown from the bottom ash system, Entergy believes that a purge water allowance of ten percent (10%) 30-day rolling average of the primary active wetted bottom ash system volume is necessary and appropriate to accommodate authorized discharges of gravity treated and non-treated effluent from the bottom ash handling system. Entergy's evaluation of the current bottom ash transport water system

[116] TSS = total suspended solids.
[117] See EDMS Document No. 13002947, pages 18-19 of 73.
[118] See EDMS Document Nos. 13002947 and 12716268.
[119] LPDES Draft Permit LA0059030, Fact Sheet, Section XIII (EDMS Document No. 13216257, page 115 of 172).

> remains ongoing. Further modifications to the high recycle system will need to be implemented to minimize the need to purge water out of the system to the Settling Pond. These modifications may include potential flow diversions, operational adjustments, and system modifications to maximize recirculation without impacting operations and maintenance. Entergy stated that they will need additional time (until the December 31, 2025 ELG deadline) to have adequate time to plan and design potential projects; budget; and coordinate necessary installation and implementation time."

The renewal permit establishes the following requirements for bottom ash purge water:

> On and after December 31, 2025, the discharge of pollutants in bottom ash transport water (bottom ash purge water) from a properly installed, operated, and maintained bottom ash system is authorized under the following conditions listed in 40 CFR 423.13(k)(2)(i)(A):
>
> 1. To maintain system water balance when precipitation-related inflows are generated from storm events exceeding a 10-year storm event of 24-hour or longer duration (e.g., 30-day storm event) and cannot be managed by installed spares, redundancies, maintenance tanks, and other secondary bottom ash equipment; or
> 2. To maintain system water balance when regular inflows from wastestreams other than bottom ash transport water exceed the ability of the bottom ash system to accept recycled water and segregating these other wastestreams is not feasible; or
> 3. To maintain system water chemistry where installed equipment at the facility is unable to manage pH, corrosive substances, substances or conditions causing scaling, or fine particulates to below levels which impact system operation or maintenance; or
> 4. To conduct maintenance not otherwise described above and not exempted from the definition of transport water in 40 CFR 423.13 (p), and when water volumes cannot be managed by installed spares, redundancies, maintenance tanks, and other secondary bottom ash system equipment.

In accordance with 40 CFR 423.13(k)(2)(i)(B), the following requirement is included in the permit: "The total volume that may be discharged for the above activities shall be reduced or eliminated to the extent achievable using control measures (including best management practices) that are technologically available and economically achievable in light of best industry practice."

In accordance with 40 CFR 423.13(k)(2)(i), this permit establishes a site specific BAT limitation on the volume of bottom ash purge water that can be discharged. Using the available information to date, LDEQ has determined that the total volume of the discharge to the settling pond shall not exceed a 30-day rolling average of ten percent of the primary active wetted bottom ash system

volume. The volume of daily discharges used to calculate the 30-day rolling average shall be calculated using measurements from flow monitors or pump logs. Based on a calculated bottom ash transport system volume of 711,059 gallons, the 30-day rolling average discharge shall not exceed 0.071 MGD.[120] Bottom ash purge water will be discharged to the settling pond at Outfall 003. According to the renewal application, the long term average flow for Outfall 003 is 3.43 MGD and the maximum monthly discharge (30-day max flow) is 5.72 MGD.[121] The bottom ash purge water limitation (0.071 MGD) is two (2) percent of the Outfall 003 long term average flow and 1.2 percent of the Outfall 003 30-day max flow.

Entergy submitted a bottom ash system preliminary evaluation on November 18, 2021.[122] In accordance with 40 CFR 423.19(c), the permit requires the permittee to submit an initial certification statement in accordance with 40 CFR 423.19(c) by December 31, 2025. This statement is required to include information such as the primary active wetted bottom ash system volume; a list of all potential discharges, the expected volume and frequency of each discharge; a list of wastewater treatment systems; and a narrative discussion of why the water cannot be managed within the system. LDEQ reserves the right to reopen and/or modify the permit based on this information. See Other Conditions, Paragraphs J and T of the permit.[123]

Additionally, a monthly average limitation for TSS has been established at Outfalls 003 and 005 based on the steam electric ELGs for bottom ash purge water and combustion residual leachate. See Other Conditions, Paragraphs J, T, U, and V of the permit.[124]

Further, the permit contains a reopener clause in case more stringent limitations and/or additional requirements are needed to support the designated uses of the receiving stream; or to implement the final EPA Effluent Guidelines.[125]

Based on public comments, a recordkeeping requirement has been added to the final permit. The permittee shall provide the following information with the monthly DMR[126] for each discharge of bottom ash purge water during the monitoring period: (1) the date(s) for the purge water discharge; (2) the total volume of water discharged during each purge; and (3) the reason for the purge. See Effluent Limitations and Monitoring Requirements for Outfall 003, Narrative Requirement N-11.

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120 See LPDES Draft Permit LA0059030, Effluent Limitations and Monitoring Requirements for Outfall 003 (EDMS Document No. 13216257, pages 18-21 of 172).

121 LPDES permit renewal application dated July 2, 2020 (EDMS Document No. 12245198, page 146 of 572).

122 See EDMS Document No. 13002947.

123 See LPDES Draft Permit LA0059030, Other Conditions, Paragraphs J and T (EDMS Document No. 13216257, pages 38 and 43-44 of 172).

124 See LPDES Draft Permit for Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Station (Coal Unit 6), Other Conditions, Paragraphs J, T, U, and V (EDMS Document No. 13216257, pages 38 and 43-44 of 172).

125 LPDES Draft Permit LA0059030, Other Conditions, Paragraph S (EDMS Document No. 13216257, page 42 of 172).

126 DMR = discharge monitoring report

ISSUE #10 *MONITORING FGD WASTEWATER*

LDEQ must include monitoring provisions for FGD wastewater discharges. [127]

LDEQ RESPONSE TO ISSUE #10

The facility does not generate flue gas desulfurization (FGD) wastewater.[128] Therefore, no monitoring requirements for FGD wastewater are included in the permit, and this permit does not authorize the facility to discharge FGD wastewater.

ISSUE #11 *MONITORING BOTTOM ASH TRANSPORT WATER DISCHARGES*

LDEQ must include monitoring provisions for bottom ash discharges.

LDEQ should also require monitoring the bottom ash discharge from Outfalls 003 and 005, for various contaminants known to be present in these respective wastewaters, including numerous heavy metals, including arsenic, mercury, selenium, and nitrate/nitrite. Not only would this information be valuable in designing the bottom ash conversion system, it would allow the public to determine the mass loading of contaminants from these wastewaters to receiving waters. Neither LDEQ, Entergy, nor the public has information about how much mass loading of these harmful contaminants are being discharge into receiving waters. To address this critical gap in information, LDEQ should include monitoring requirements in the LPDES permit at each outfall (and internal outfall) where bottom ash wastewater discharges are possible. [129]

Bottom ash contains various toxic metals, including arsenic, boron, cadmium, lead, mercury, and selenium. It also contains harmful levels of bromides and nutrients. ... These chemicals cause a wide variety of health risks, including birth defects, increased cancer risk, liver and kidney abnormalities, and diarrhea. EPA detailed the risk of impairment that ash based discharges pose to protected water uses. [130]

LDEQ RESPONSE TO ISSUE #11

Bottom ash transport water is generated at the facility. Nelson Coal Unit 6 currently operates a wet sluice water system (bottom ash handling system). The bottom ash system uses water to make a slurry which is then sluiced to a cyclone filter (hydrobin). The water is decanted and normally recycled back into the bottom ash handling system. However, bottom ash handling system water would be sent to the settling pond and discharged through Outfall 003 or Outfall 005[131] in a situation

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127 Written statement from J. Smith on behalf of Sierra Club (EDMS Document No. 13345295).
128 LPDES permit renewal application dated July 2, 2020, (EDMS Document No. 12245198, pages 13-14 of 572).
129 Written statement from J. Smith on behalf of Sierra Club (EDMS Document No. 13345295).
130 Written statement from J. Smith on behalf of Sierra Club (EDMS Document No. 13345295).
131 Outfall 005 is for the intermittent discharge of overflow stormwater from the settling pond that normally discharges through Outfall 003 and previously monitored hydrostatic wastewater from Internal Outfall 303.

such as overflow of the bottom ash handling system surge tank during startup/shut-down of ash quenching; maintenance events; or overflow of the bottom ash hopper sump during heavy rain events. The solids are stored prior to being sold or staged at the ash landfill.[132] Ash disposal area runoff, coal pile runoff, and bottom ash handling system wastewater (normally recycled) are routed to a permitted surface impoundment (settling pond) that is then discharged through Outfall 003 or Outfall 005.

The permit includes monitoring for BATW from the discharge through Outfalls 003 and 005. No changes to the monitoring requirements have been made in the final permit.

The limitations and monitoring requirements established in the permit are protective of human health, aquatic life, and the environment. As stated in the Fact Sheet for the draft permit,[133] the renewal permit has been developed to incorporate EPA's revisions to the ELGs for the steam electric power generating point source category, which were published in the Federal Register in November 2015 and amended by the 2020 Rule, which was published in the Federal Register in October 2020.[134]

LDEQ addresses toxicity associated with this category of wastewater by screening toxicity information provided in the application prior to discharge to waters of the state. In accordance with 40 CFR 122.44(d)(1)/LAC 33:IX.2707.D.1., the existing discharge was evaluated in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, October 26, 2010 (water quality implementation plan).[135] According to the water quality implementation plan, any parameter which demonstrates reasonable potential to exceed water quality standards will have water quality based limitations established in the permit with an accompanying compliance schedule. A review of analytical data from the permittee's application for cadmium, lead, and selenium showed all three results below the minimum quantitative level (MQL) at Outfall 003. Separate sampling was not conducted for Outfall 005 since it represents an intermittent overflow discharge and would carry the same wastewater/stormwater as Outfall 003. For Outfall 003, analytical results from the permittee's application[136] were screened against state water quality numerical standard based limits. As a result of the screen, no parameters demonstrated reasonable potential to cause exceedance of water quality standards; therefore, no water quality based limitations were required.[137] Outfall 005 is for the intermittent overflow discharge of stormwater/wastewater from the pond that normally discharges through Outfall 003; therefore, a reasonable potential analysis was not performed for Outfall 005.

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132 LPDES permit renewal application dated July 2, 2020, (EDMS Document No. 12245198, page 15 of 572).

133 LPDES Draft Permit LA0059030, Fact Sheet, Section XIII (EDMS Document No. 13216257, page 115 of 172).

134 Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category, 80 Fed. Reg. 67838 (Nov. 3, 2015). See https://www.federalregister.gov/d/2015-25663 and 86 Fed. Reg. 64650 (October 13, 2020) https://www.federalregister.gov/documents/2020/10/13/2020-19542/steam-electric-reconsideration-rule

135 EDMS Document No. 7717002.

136 See EDMS Document Nos. 12794591 and 12838188.

137 LPDES Draft Permit LA0059030, Fact Sheet and Rationale, Appendix B (Water Quality Calculations), (EDMS Document No. 13216257, pages 124-144 of 172).

Bromide was discussed in the preambles to both the 2015 and 2020 revisions to the steam electric ELGs. According to the preambles, the discharge of bromides may affect potable water treatment facilities located downstream of steam electric power plants. The presence of bromides in drinking water can result in exceedances of drinking water MCLs[138] as a result of interactions during drinking water treatment and disinfection processes.[139] However, the Houston River is not a drinking water supply. There are no drinking water intakes downstream from the Nelson Coal Unit 6 facility.[140] Therefore, no requirements were placed in the renewal permit.

Nutrients were considered in the development of the renewal permit. The application was reviewed in accordance with the Louisiana Nutrient Management Strategy.[141] Results of the review of the application and facility type indicate this discharge is not expected to have the potential to cause or contribute to the impairment; therefore, monitoring requirements for total nitrogen (TN) and total phosphorus (TP) have not been included in this permit at this time.[142] For Outfall 003, the analytical data for ammonia submitted with the application[143] is below the ammonia criteria (see Appendix A). Therefore, no additional requirements for ammonia are established in the permit.

Regarding boron, LDEQ considered the steam electric ELGs.[144] The ELGs do not establish limits for boron. If EPA establishes limitations for boron, LDEQ will establish the limitations in the permit as applicable. Additionally, the analytical data submitted with the permit application reported a value of 0.11 mg/L for boron at Outfall 003.[145] LDEQ does not have a minimum quantification level for boron for state water permitting assessments and state water quality criteria have not been established for boron. The Houston River is not a drinking water supply. The federal government does not regulate boron in drinking water, and public drinking water systems are not required to monitor for boron. Some states have drinking water standards or guidelines for boron (California, Florida, Maine, Minnesota, New Hampshire, and Wisconsin); these range from 0.6 to 1 mg/L.[146] The analytical data for boron at Outfall 003 is below this range. Therefore, no requirements for boron are established in the permit.

Additionally, a re-opener clause is included in Other Conditions of the permit, should more stringent discharge limitations and/or additional restrictions be required in the future to maintain the water quality integrity and the designated uses of the receiving waterbodies.

For detailed information regarding monitoring requirements, see the attached *Basis for Decision* document.[147]

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138 MCL = maximum contaminant level.
139 See Federal Register, Volume 80, November 3, 2015, pages 67886-67887 and Federal Register, Volume 85, October 13, 2020, pages 64711-64712.
140 See EDMS Document No. 13047061.
141 Nutrient Reduction and Management Strategy | Louisiana Department of Environmental Quality
142 LPDES Draft Permit LA0059030, Fact Sheet, Section XI (EDMS Document No. 13216257, pages 110-111 of 172).
143 See EDMS Document No. 12794591.
144 https://www.govinfo.gov/content/pkg/CFR-2021-title40-vol31/pdf/CFR-2021-title40-vol31-part423.pdf
145 See EDMS Document No. 12794591.
146 https://www.epa.gov/sites/default/files/2014-09/documents/summary_document_from_the_ha_for_boron.pdf
147 See LDEQ's *Basis for Decision, Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Plant (Coal Unit 6), Permit No. LA0059030*, Section IV.B.4.b.

ISSUE #12 *VOLUNTARY INCENTIVES PROGRAM (VIP)*

At a minimum, LDEQ must ensure continued progress under the voluntary incentives program and evaluate whether water quality based effluent limits are needed.

[B]ecause the ELGs are final and effective, LDEQ does not have discretion to delay compliance. But at a minimum, the agency must include in the Nelson LPDES permit additional provisions to ensure ongoing progress toward compliance under the Voluntary Incentives Program under 40 C.F.R. § 423.12(g)(3)(i). [148]

LDEQ RESPONSE TO ISSUE #12

The Voluntary Incentives Program (VIP) is a voluntary compliance option for facilities with discharges of FGD wastewater. Under the VIP, dischargers who choose to meet the more stringent effluent limitations for FGD wastewater listed in 423.13(g)(3)(i) must meet such limitations by December 31, 2028 instead of December 31, 2023. According to the application, Roy Nelson Coal Unit 6 does not have discharges of FGD wastewater.[149] Therefore, the VIP program is not applicable for this facility and no requirements are included in the permit.

See Issue #15 regarding water quality-based effluent limits.

ISSUE #13 [150] *TECHNOLOGY BASED EFFLUENT LIMITS (TBELS)*

The draft permit lacks needed technology-based effluent limits ("TBELs") for toxic metals in the plant's leachate, ash, or coal pile discharges.

Aside from ELG compliance, LDEQ must modify the draft permit to include technology-based effluent limits for toxic metals in coal combustion wastewaters. *... The draft permit, however, does not contain TBELs for any pollutants beyond the bare minimum federal effluent limitation guidelines for this industry. The Draft Permit authorizes Entergy to discharge coal ash effluent, stormwater associated with coal combustion waste landfills, coal pile runoff, leachate, and similar wastes from Outfall 003 and 005. As EPA has recognized, these discharges from these outfalls likely contain numerous metals and other pollutants. Yet, the permit includes only those TBELs already established ELGs for pH, TSS, TOC, and oil and grease. For all of the other pollutants that EPA has identified as commonly found in coal combustion wastewater and runoff, the draft permit contains absolutely no effluent limits.*

LDEQ acknowledges that the plant discharges coal combustion wastes, including leachate, but fails to employ its best professional judgment to determine BAT for toxic pollutants in these waste

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148 Written statement from J. Smith on behalf of Sierra Club (EDMS Document No. 13345295).
149 LPDES permit renewal application dated July 2, 2020, (EDMS Document No. 12245198, pages 13-14 of 572).
150 Written statement from J. Smith on behalf of Sierra Club (EDMS Document No. 13345295).

streams, preferring to wait until EPA has developed effluent limitation guidelines—despite EPA's admonition that state permitting authorities have an obligation to establish TBELs for these pollutants immediately. ... [T]he effluent limits LDEQ does identify appear to be water quality based limits. Indeed, the treatment methods that Nelson uses for its coal combustion waste discharges, in the absence of stringent TBELs based on a proper BAT analysis, are outdated and inadequate to remove the toxic metals often found in those wastewaters.

As required by the CWA, LDEQ must establish TBELs for the coal ash combustion effluent discharged from Outfalls 003 and 005. Using data available from EPA and power plants across the nation, LDEQ can and must use its best professional judgment to set BAT-based numeric effluent limits in the final permit for pollutants discharged by Nelson, including the 27 pollutants identified by EPA as commonly present in coal ash wastewaters and leachate. In evaluating BAT, LDEQ must consider the same mandatory factors that EPA would consider in setting national effluent limitations.

LDEQ RESPONSE TO ISSUE #13

LDEQ has complied with the Clean Water Act (CWA) and EPA's effluent limitations guidelines (ELGs) for the Steam Electric Power Generating Point Source Category (40 CFR 423)[151] in developing the permit. EPA Region 6 has reviewed the limitations in this permit and had no objection.[152]

As stated in the Fact Sheet for the draft permit,[153] the renewal permit has been developed to incorporate EPA's revisions to the ELGs for the steam electric power generating point source category, which were published in the Federal Register in November 2015 and amended by the 2020 Rule, which was published in the Federal Register in October 2020.[154]

In developing the steam electric effluent limitations guidelines, the Environmental Protection Agency conducted an analysis of the pollutants of concern found across all types of wastewaters for the industry category, as well as the treatment technologies utilized in the industry. Effluent limitations and standards were developed based upon this analysis in the final rule. LDEQ has incorporated final limitations and requirements specified by the final rule in the renewal permit. Additionally, LDEQ conducted a reasonable potential analysis using site-specific effluent data from the Nelson Coal Unit 6 renewal application.[155] No parameters required water quality-based limitations (WQBLs) at Outfall 003.[156] Outfall 005 is for the intermittent discharge of overflow

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151 https://www.ecfr.gov/cgi-bin/text-idx?SID=6b51273d47e8dc451e0aac10f60cdfee&mc=true&node=pt40.31.423&rgn=div5

152 See EDMS Document No. 13186457.

153 LPDES Draft Permit LA0059030, Fact Sheet, Section XIII (EDMS Document No. 13216257, page 111-117 of 172).

154 Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category, 80 Fed. Reg. 67838 (Nov. 3, 2015). See https://www.federalregister.gov/d/2015-25663 and 86 Fed. Reg. 64650 (October 13, 2020) https://www.federalregister.gov/documents/2020/10/13/2020-19542/steam-electric-reconsideration-rule

155 See EDMS Document Nos. 12794591 and 12838188.

156 LPDES Draft Permit LA0059030 Fact Sheet and Rationale, Appendix B (EDMS Document No. 13216257, pages 130-144 of 172).

stormwater from the settling pond that normally discharges through Outfall 003. Therefore, a reasonable potential analysis was not conducted since Outfall 005 is an intermittent discharge that does not normally discharge during times of low streamflow. Further, additional limitations were not required based on 303(d)/TMDL status.[157]

It has been determined that the final permit limitations are protective of human health, aquatic life and the environment. A re-opener clause is included in Other Conditions of the permit should more stringent discharge limitations and/or additional restrictions be required in the future to maintain the water quality integrity and the designated uses of the receiving waterbodies.

Additionally, a reopener clause has been included in the final permit stating that the permit may be reopened to implement any final EPA Effluent Guidelines and requirements that may added or removed as applicable, pursuant to a final rule issued by EPA following the August 3, 2021 Notice of Rulemaking.[158] According to the EPA website, the EPA Administrator, Michael S. Regan, signed a proposed rule and notice of public hearing on March 7, 2023, and EPA is submitting it for publication in the Federal Register (FR).[159] See Other Conditions, Paragraph S of the permit.[160]

A detailed explanation of the basis for the assigned permit limits, as well as measures to be taken to avoid adverse environmental impacts, are included in the attached *Basis for Decision* document.[161]

ISSUE #14 *COURT REMANDS FOR BAT GUIDELINES FOR LEACHATE AND LEGACY WASTEWATER*

In establishing limitations for leachate wastewater, LDEQ must not simply rubberstamp Entergy's proposed use of surface impoundments as the best treatment available. *Indeed, in vacating EPA's 2015 ELG Rule for leachate wastewater discharges, the Fifth Circuit found that impoundments, "which are essentially pits where wastewater sits, solids (sometimes) settle out, and toxins leach into groundwater." are "out of date," "largely ineffective," and "do not adequately control the pollutants (toxic metals and other[s]) discharged by this industry, nor do they reflect relevant process and technology advances that have occurred in the last 30-plus years." In so concluding, the Fifth Circuit emphatically rejected EPA's determination that surface impoundments are the "best" available technology for controlling legacy wastewater or leachate discharges.*

Although the Fifth Circuit's decision in Southwestern Electric addressed EPA's legacy wastewater and leachate provisions of the 2015 ELG Rule, its reasoning for why surface impoundments are not

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157 LPDES Draft Permit LA0059030 Fact Sheet and Rationale, Section XI (EDMS Document No. 13216257, pages 109-111 of 172).

158 See https://www.epa.gov/eg/2021-supplemental-steam-electric-rulemaking

159 See https://www.epa.gov/eg/steam-electric-power-generating-effluent-guidelines-2023-proposed-rule

160 LPDES Draft Permit LA0059030, Other Conditions, Paragraph S (EDMS Document No. 12740349, page 42 of 172).

161 See *LDEQ's Basis for Decision, Entergy Louisiana, LLC/Roy S. Nelson Electric Generating Plant (Coal Unit 6),* Sections IV.B.3; IV. B.4; and V.

BAT is equally applicable to LDEQ's BPJ determination for leachate discharges, given the overwhelming record that EPA developed showing that surface impoundments are not effective at reducing discharges of pollutants to surface water, have caused widespread groundwater contamination, and that modern, more effective, and affordable alternatives are available to the industry. Any attempt by LDEQ to determine that surface impoundments are the best available technology for leachate discharges from Nelson would be arbitrary, capricious, and contrary to law. [162]

LDEQ RESPONSE TO ISSUE #14

Consideration of remand of sections of the steam electric rule was addressed in Section XIV of the Fact Sheet for the draft renewal permit.[163] On April 12, 2019, the Fifth Circuit Court of Appeals remanded sections of the November 2015 BAT effluent limitations for combustion residual leachate and legacy wastewater back to EPA for reconsideration.[164] Therefore, the best practicable control technology currently available (BPT) effluent limitations guidelines (40 CFR 423.12) for these wastewaters are currently effective.[165] Legacy wastewater is wastewater from five of the streams (FGD, fly ash, bottom ash, FGMC, and gasification wastewater) that is generated prior to the compliance date listed in the permit for the stricter BAT standards. This final permit authorizes the discharge of combustion residual leachate and legacy bottom ash transport water. Legacy wastewater from the other wastewater streams is not being discharged, and is not authorized by this final permit.

Legacy bottom ash transport water and combustion residual leachate will discharge through Outfalls 003 and 005. Limitations for TSS, Oil & Grease, and pH have been established at Outfalls 003 and 005 based on the BPT effluent limitations guidelines for the steam electric power generating category (40 CFR 423.12). LDEQ addresses toxicity associated with these categories of wastewater by screening toxicity information provided in the application prior to discharge to waters of the state. As required by 40 CFR 122.44(d)(1)/LAC 33:IX.2707.D.1., the existing discharge was evaluated in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, October 26, 2010 (water quality

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162 Written statement from J. Smith on behalf of Sierra Club (EDMS Document No. 13345295).

163 LPDES Draft Permit LA0059030 Fact Sheet and Rationale, Section XIV (EDMS Document No. 13216257, pages 117-118 of 172).

164 See *Southwestern Electric Power Co. v. EPA*, 15-60821 (5th Cir. 4/12/19), 920 F.3d 999.

165 BPT effluent guidelines for combustion residual leachate were originally promulgated by EPA at 40 CFR 423.12(b)(3) - BPT effluent guidelines for discharges of low volume wastewaters. EPA's 2015 revisions to the steam electric guidelines removed combustion residual leachate from the low volume wastewaters category and established BPT effluent guidelines for combustion residual leachate at 40 CFR 423.12(b)(11) and BAT effluent guidelines at 40 CFR 423.13(l). However, EPA's 2015 final rule promulgating new effluent limitation guidelines for combustion residual leachate was vacated in-part and remanded by the U.S. Court of Appeals for the Fifth Circuit, in the decision *Southwestern Electric Power Company v. U.S. EPA*, 920 F.3d 999 (5th Cir. 2019). Therefore, the BPT effluent limitations guidelines (40 CFR 423.12) for these wastewaters are currently effective. According to information received from EPA (EDMS Document No. 13098138), 40 CFR 423.12(b)(11) is still in effect and applicable to combustion residual leachate. The BPT effluent guidelines for combustion residual leachate are the same in the previous citation at 40 CFR 423.12(b)(3), Nov. 19, 1982, and in the 2015 revised citation at 40 CFR 423.12(b)(11), Nov. 3, 2015.

implementation plan).[166] According to the water quality implementation plan, any parameter that demonstrates reasonable potential to exceed water quality standards will have water quality based limitations established in the permit with an accompanying compliance schedule. For Outfall 003, analytical results from the permittee's application were screened against state water quality numerical standard based limits. As a result of the screen, no parameters demonstrated reasonable potential to cause exceedance of water quality standards; therefore, no water quality based limitations were required (See Appendix B).[167] Outfall 005 is for the intermittent overflow discharge of stormwater/wastewater from the pond that normally discharges through Outfall 003; therefore, a reasonable potential analysis was not performed for Outfall 005. A re-opener clause is included in Other Conditions of the permit should more stringent discharge limitations and/or additional restrictions be required in the future to maintain the water quality integrity and the designated uses of the receiving waterbodies.

The limitations and monitoring requirements established in the permit are protective of human health, aquatic life, and the environment. Once EPA updates the national guidelines, LDEQ will appropriately implement them in LPDES permits for these facilities.

ISSUE #15 [168] *WATER QUALITY BASED EFFLUENT LIMITS (WQBLS)*

LDEQ failed to properly evaluate water quality based effluent limits ("WQBELs") for heavy metals and toxic substances are discharged from the facility. LDEQ must reevaluate whether WQBELs are needed based on an accurate assessment of the quantity and pollutant composition of the plant's discharges, and must ensure that the permit contains binding conditions to ensure that wastewater is not discharged at a level that will cause, have the reasonable potential to cause, or contribute to an exceedance of any state water quality standard, including state narrative water quality standards.

LDEQ must reevaluate whether water quality based effluent limits are needed to meet water quality standards. *... [I]f Nelson may discharge any pollutants at a level that may cause or contribute to exceedances of Louisiana water quality standards, LDEQ must set WQBELs for such pollutants during the renewal of the permit. ... The draft permit does include WQBELs for total copper and zinc, but does not evaluate the potential for limiting any other pollutant. This is remarkable given that the permit also lacks technology-based effluent limits for the wide variety of toxic pollutants commonly found in coal combustion wastes, as discussed above. LDEQ should reevaluate the need for WQBELs in the Nelson permit given the addition of mercury, lead, and biochemical oxygen demand from coal combustion waste sources to the Houston River.*

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[166] EDMS Document No. 7717002.

[167] LPDES Draft Permit LA0059030 Fact Sheet and Rationale, Appendix B (EDMS Document No. 13216257, pages 130-144 of 172).

[168] Written statement from J. Smith on behalf of Sierra Club (EDMS Document No. 13345295).

LDEQ RESPONSE TO ISSUE #15

The facility, under the conditions of the LPDES permit, is not expected to negatively impact the water quality or designated uses in the subsegment. The Fact Sheet includes a description of the wastewater type, expected flow, and receiving stream for each outfall.[169] The permittee is authorized to discharge in accordance with the effluent limitations, monitoring requirements, narrative requirements, other conditions, and standard conditions set forth in the LPDES permit. Effluent limitations for each outfall are listed in the Effluent Limitations and Monitoring Requirements section of the permit.

The discharges from Nelson Coal Unit 6 were evaluated in accordance with 40 CFR 122.44(d)(1)/LAC 33:IX.2707.D.1 and the Office of Environmental Services' Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, October 26, 2010 (water quality implementation plan).[170] According to the water quality implementation plan, any parameter which demonstrates reasonable potential to exceed water quality standards will have water quality based limitations established in the permit. Technology based effluent limitations from EPA's ELGs for the steam electric power generating point source category (40 CFR Part 423) and specific analytical data from the permittee's application [171] were screened against state water quality numerical standard based limits. As a result of the screen, zinc received water quality based limitations (WQBLs) at Outfall 002. No parameters demonstrated reasonable potential to cause exceedance of water quality standards at Outfall 003; therefore, no WQBLs were required at Outfall 003 (See Appendix B).[172] Outfall 005 is for the intermittent overflow discharge of stormwater/wastewater from the pond that normally discharges through Outfall 003; therefore, a reasonable potential analysis was not performed for Outfall 005. Based on the reasonable potential analysis, it was determined that the limitations established in the permit are protective of human health, aquatic life, and the environment.

As an added measure, WET testing is required at Outfall 002. A re-opener clause is included in Other Conditions of the permit should more stringent discharge limitations and/or additional restrictions be required in the future to maintain the water quality integrity and the designated uses of the receiving waterbodies.

This issue is addressed in further detail in the attached *Basis for Decision* document under the Antidegradation section.[173] Additionally, this issue was previously addressed in the *Comments Response Summary* and *Basis for Decision* for the 2014 LPDES permit.[174]

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169 LPDES Draft Permit LA0059030, Fact Sheet and Rationale, Section 7, Outfall Information, pages 3-6 (EDMS Document No. 13216257, pages 85-88 of 172).

170 EDMS Document No. 7717002.

171 See EDMS Document Nos. 12794591 and 12838188.

172 LPDES Draft Permit LA0059030 Fact Sheet and Rationale, Appendix B (EDMS Document No. 13216257, pages 124-144 of 172).

173 See *LDEQ's Basis for Decision, Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Plant (Coal Unit 6), Permit No. LA0059030*, Section V.

174 See EDMS Document No. 10023331.

See response to Issue #16 regarding total copper limitations.

ISSUE #16 *REMOVAL OF TOTAL COPPER LIMITS*

The draft permit proposes to remove water quality-based limitations for total copper at Outfall 002 without ensuring that there will be no impermissible backsliding. [175]

LDEQ RESPONSE TO ISSUE #16

As stated in the Fact Sheet,[176] a permit modification, effective on July 30, 2020,[177] established a monthly average water quality based limit (WQBL) of 47 µg/L and a daily maximum WQBL of 111 µg/L at Outfall 002 based on a reasonable potential analysis (water quality screen) using two data points. Additional copper data was available during development of the draft renewal permit. A water quality screen was conducted using the analytical data submitted with the application and the results do not show a reasonable potential to violate water quality standards for copper. Therefore, water quality-based limitations for total copper have been removed from Outfall 002 in the renewal permit. See Fact Sheet Appendix B for calculations, results, and documentation.[178]

This issue is addressed in further detail in the attached *Basis for Decision* document under the Mitigating Factors section.[179]

ISSUE #17 *STORMWATER POLLUTION PREVENTION PLAN ISSUES*

PDF Page 28 says "Any discharge in excess of these limitations which is attributable to offsite contamination shall not be considered a violation of the permit." Therefore, if AI7893 floods onto AI19588 and the entire mess flows into the Houston River as a giant slug of poison neither Entergy Nelson facility will be held in violation. Smart thinking.

The variety of sources of wastewater going into the Houston River at least 38 different origins, and a loophole that would exonerate both Entergy plants from permit violations if the oil and gas fired plant wastewater floods across the coal fired plant to the river. [180]

LDEQ RESPONSE TO ISSUE #17

The commenter is referring to a section of the Stormwater Pollution Prevention Plan (SWP3) requirements of the permit. The SWP3 applies to all industrial stormwater discharges from the

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175 Written statement from J. Smith on behalf of Sierra Club (EDMS Document No. 13345295).
176 LPDES Draft Permit LA0059030, Section X, Outfall 002 (EDMS Document No. 13216257, page 97 of 172).
177 LPDES Modified Permit LA0059030 (EDMS Document No. 12290508).
178 LPDES Draft Permit LA0059030, Appendix B, Outfall 002 (EDMS Document No. 13216257, pages 124-129 of 172).
179 See *LDEQ's Basis for Decision, Entergy Louisiana, LLC, Roy S. Nelson Electric Generating Plant (Coal Unit 6), Permit No. LA0059030*, Section IV.3.
180 Written statement from M. Tritico on behalf of Restore Explicit Symmetry To Our Ravaged Earth (RESTORE) (EDMS Document No. 13326206).

facility, either through permitted outfalls or through outfalls which are not listed in the permit, or as sheetflow. To provide background and respond to this comment, the following excerpt is taken from the SWP3 requirements of the permit:[181]

> Permit Requirements, page 18 of 20, Narrative Requirement N-7, SWP3: Any runoff leaving the developed areas of the facility, other than through the permitted outfall(s), exceeding 50 mg/L Carbon, total organic (STORET 00680), 15 mg/L Oil and grease (STORET 00556), or having a pH (STORET 00400) less than 6.0 SU or greater than 9.0 SU shall be a violation of this permit. Any discharge in excess of these limitations, which is attributable to offsite contamination shall not be considered a violation of this permit.

If a facility can show that offsite contamination caused the exceedance of these limitations, it wouldn't be considered a violation for this facility. Nelson Coal Unit 6 (AI 19588) is located adjacent to the Roy S. Nelson Oil & Gas Generating Plant (AI 7893; LA0005843). Nelson Coal Unit 6 discharges treated wastewaters, utility waters, and stormwater under its own LPDES permit (LA0059030). So if the offsite contamination which caused an exceedance of SWP3 limitations at AI 19588 (Nelson Coal Unit 6) was proven to be from AI 7893 (Roy Nelson Oil and Gas Generating Plant), AI 7893 would be responsible.

ISSUE #18 [182] *COAL ASH LANDFILL AND IMPOUNDMENTS*

LDEQ has not properly addressed all discharges associated with Nelson's coal ash landfill and impoundments. LDEQ must evaluate whether the plant's ash and waste ponds are properly constructed, or are likely to seep, breach, or illegally discharge.

The permit does not adequately address all discharges associated with the coal ash landfill and impoundments. *... LDEQ must assess whether Nelson is discharging pollution from its coal combustion waste landfill and impoundments without a permit. These ponds contain the highly toxic coal combustion wastes such as bottom ash transport water, fly ash, and coal pile runoff that, if released into the Houston River, would be catastrophic.*

Discharges from the landfill and impoundments to surface waters and/or groundwater with a hydrogeological connection to surface water without a permit are prohibited by the Clean Water Act. ... All unpermitted discharges from a point source to these waters are violations of the CWA. Leaks in a pollution containment system, like coal combustion waste landfills and impoundments, are point sources. Thus, discharges of toxic pollution from leaks in coal combustion waste landfills and impoundments are prohibited without an NPDES permit.

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[181] LPDES Draft Permit LA0059030, Permit Requirements, SWP3, Narrative Requirement N-7 (EDMS Document No. 13216257, page 28 of 172).

[182] Written statement from J. Smith on behalf of Sierra Club (EDMS Document No. 13345295).

The Draft Permit fails to examine whether the coal ash landfill at Nelson is impermissibly discharging pollutants to the Houston River. Any unpermitted discharges from these ponds would be illegal and LDEQ must require the applicant to submit groundwater and lake water monitoring data to ensure that such discharges are not occurring. LDEQ should further require a period of wet effluent toxicity testing using water samples taken from various locations around the perimeter of the coal ash ponds. Recent EPA guidance has made clear that coal ash combustion impoundments are within the scope of NPDES permits for electric generating facilities and must be addressed by the permitting authority.

LDEQ RESPONSE TO ISSUE #18

It is not clear what the commenter means by "lake water monitoring data." There is a settling pond at the facility, but there is no mention of a lake in the outfall descriptions.

The Nelson Coal Unit 6 facility does not have fly ash or bottom ash ponds. This facility dry handles fly ash. Additionally, Nelson Coal Unit 6 operates a wet sluice water system to quench hot bottom ash in the bottom ash hoppers and transport it to an engineered cyclone filter where ash is recovered and the majority of the water is recovered and recycled back into the bottom ash handling system. The recovered bottom ash is dropped into dewatering bins and loaded into trucks prior to transfer. Ash disposal area runoff, coal pile runoff, and bottom ash handling system wastewater (normally recycled) are routed to a permitted surface impoundment (settling pond) that is then discharged through Outfall 003 or Outfall 005 to local drainage then to the Houston River.[183]

Based on the construction information provided in the solid waste permits[184] for the permitted impoundments (Unit 6 Settling Pond and Wastewater Neutralization Basin), both of these impoundments at the Entergy Nelson facility are properly constructed and permitted and have synthetic liners and an appropriate groundwater monitoring system.

According to the potentiometric maps submitted in the groundwater monitoring reports and the potentiometric maps that are in the solid waste permits for the facility, the groundwater flow at the Unit 6 Settling Pond is to the northwest towards the Houston River. Groundwater flow at the Waste Water Neutralization Basin is towards the northeast and towards the Houston River. The groundwater flow at the Coal Ash Landfill is to the east/northeast towards the facility and away from the Houston River.[185] As shown in the semiannual monitoring reports, the Coal Ash Landfill is in detection monitoring while the Unit 6 Settling Pond and Waste Water Neutralization Basin are in assessment monitoring. The Coal Ash Landfill has no statistically significant increases while the

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183 LPDES permit renewal application dated July 2, 2020 (EDMS Document No. 12245198, pages 12-15 of 572).

184 Nelson Coal Unit 6 maintains the following solid waste permits: P-0018-R1-M6, coal ash disposal landfill (EDMS Document Nos. 8077326, 8260114, 8546571, 8744253, and 11267403); P-0019-R1-M3, Settling Pond (EDMS Document Nos. 8077332, 8546551, 8744259, and 10199641); and P-0078-R1, Wastewater Neutralization Pond (EDMS Document Nos. 8077330, 8546593, 8744255, 9985624, and 10175616).

185 EDMS Document Nos. 9834523 (Semi-Annual Groundwater Monitoring Report), 9862832 (Additional Information for Permit Modification -P-0018-R1), and 7998453 (Permit Renewal-P-0018).

Unit 6 Settling Pond and Waste Water Neutralization Basin have no exceedances above the groundwater protection standards.

According to the application, the ash disposal area is also regulated as an existing CCR[186] landfill under the CCR Rule and Entergy is required to publish groundwater monitoring data relating to that area of public availability. The Entergy CCR website for Nelson Coal Unit 6 is located at www.entergy-louisiana.com/ccr.[187]

The facility's water discharges are subject to the requirements of the LPDES program and must be in compliance with the LPDES permit LA0059030. Specifically, this permit establishes limitations for six outfalls (001, 002, 003, 303, 004, and 005). In addition to limitations and monitoring requirements established in the permit, Other Conditions and Standard Conditions of the permit establish applicable permitting requirements for the entire facility, including but not limited to, stormwater pollution prevention measures, conditions for proper operation and maintenance, and reporting requirements for unauthorized discharge. It should also be noted that any discharge at the facility not regulated by this permit is considered an unauthorized discharge and subject to enforcement action.

ISSUE #19 [188] *ENVIRONMENTAL ASSESSMENT STATEMENT (EAS)*

The Company's perfunctory and superficial Environmental Assessment Statement is legally and factually deficient, especially in light of the agency's failure to require expeditious ELG compliance and the agency's obligation to mitigate environmental impacts to the maximum extent possible.

Entergy's superficial EAS fails to provide the information necessary for the agency to perform its public trustee duty. *... [T]he Environmental Assessment Statement ("EAS") that Entergy submitted to support its application is woefully inadequate because it fails to provide the information necessary for LDEQ to conduct its public trustee review.*

Louisiana's public trustee duty has been analogized to the federal National Environmental Policy Act ("NEPA") and requires comparable environmental review and analysis. As such, LDEQ must also consider the indirect and cumulative impacts of Entergy's renewed permits, in addition to any available alternatives and potential mitigation measures. Entergy's EAS fails to fully address these public trustee issues in a meaningful way—as section 30:2018(B) requires—and therefore LDEQ cannot rely on this EAS to make its decision.

Entergy's EAS for the proposed permit fails to meaningfully evaluate whether the potential and real adverse environmental effects of the proposed project have been, or could be, avoided to the maximum extent possible. Nor does the EAS evaluate whether there are mitigating measures which would offer more protection to the environment than the proposed project without unduly curtailing

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186 CCR = coal combustion residuals

187 LPDES permit renewal application dated July 2, 2020 (EDMS Document No. 12245198, page 13 of 572).

188 Written statement from J. Smith on behalf of Sierra Club (EDMS Document No. 13345295).

non-environmental benefits to the extent applicable. More specifically, as explained in detail above, it would be both technically feasible and cost effective for Nelson to fully comply with EPA's ELG Rule well before 2025, which would indisputably mitigate the adverse environmental impacts from Nelson's wastewater discharges. And even if LDEQ's proposed ten percent bottom ash purge exemption were lawful (it is not), the draft permit does not impose that limitation until December 2025, and does not evaluate earlier compliance deadlines, even though earlier compliance would likewise mitigate the adverse health and environmental impacts of Nelson's discharges.

Yet the Nelson EAS fails to mention—let alone meaningfully evaluate—compliance with readily-available, industry-standard pollution control technologies that would avoid or mitigate harmful pollution from Nelson's bottom ash wastewater discharges, as required by Section 30:2018(B). As discussed, EPA's ELG Rule is a final and effective federal regulation, but LDEQ appears to excuse from compliance (or even planning for compliance). Even if this were a lawful approach, which it is not, LDEQ must still disclose and evaluate the availability of such pollution controls and mitigation in the context of the EAS evaluation. Because Entergy failed to disclose or evaluate readily-available pollution control technologies that are required by federal law, and will reduce harmful pollution, the EAS is facially deficient and cannot be approved by LDEQ. Approval of this EAS would be contrary to law.

Entergy not only fails to disclose the availability of bottom ash control technology that could mitigate the adverse impacts of the proposed permit, but the Company also fails to even evaluate options like monitoring the bottom ash discharge from Outfalls 003 and 005 for the contaminants known to be present in these discharges, including numerous heavy metals, including arsenic, mercury, selenium, and nitrate/nitrite. As discussed above, this information would be valuable to Entergy in planning for ELG compliance, but it would allow provide the public with critical information about the environmental impacts of the Nelson facility. Finally, the EAS fails to even disclose the availability of the voluntary compliance measures and incentives available to similarly situated discharges. This program offers Nelson and the community an opportunity to ensure reasonable progress toward ELG compliance and the protection of receiving waters. 40 C.F.R. § 423.12(g)(3)(i). Given the impacts of coal ash wastewater discharges to human health and the environment, LDEQ must require Nelson to re-evaluate potential mitigation measures such as compliance with the ELG Rule prior to the latest possible date in 2023.

LDEQ RESPONSE TO ISSUE #19

With regard to the Environmental Assessment, please refer to the *Basis for Decision*, Section IV.

With regard to the compliance date, please refer to the *Basis for Decision*, Sections I and IV, and the response to Issue #8 above.

With regard to monitoring for contaminants in bottom ash transport water, see the response to Issue #11 above.

With regard to the availability of voluntary compliance measures and incentives, the commenter references 40 CFR 423.12(g)(3)(i). 40 CFR 423.13(g)(3)(i) references the voluntary incentive program for discharges of FGD wastewater. As stated in the response to Issue #10, Nelson Coal Unit 6 does not discharge FGD wastewater. Therefore, the program is not applicable for this facility.

LDEQ has complied with the Clean Water Act (CWA) and EPA's effluent limitations guidelines for the Steam Electric Power Generating Point Source Category (40 CFR 423)[189] in developing the permit. The EPA established the requirements and guidelines for the BATW/bottom ash purge water ELGs. The EPA reviewed the preliminary draft permit and had no objection to the site specific BAT limitation on the volume of bottom ash purge water that may be discharged or the compliance date established in the permit.[190] The permittee is required to submit annual progress reports addressing progress toward attaining compliance with the "as soon as possible" ELG compliance date. Further, in accordance with Other Conditions, Paragraph S, the permit may be reopened to implement the final EPA Effluent Guidelines and requirements may be added and/or removed as applicable.[191]

LDEQ's objective is to maintain a healthy and safe environment for the people of Louisiana, and to protect, conserve and replenish the natural resources of the state consistent with the health, safety, and welfare of the people. See La. Const. art. IX § 1. In light of this goal, LDEQ has worked diligently to develop a permit that is designed to ensure protection of human health, aquatic life, and maintenance of the receiving water. The permit has been written in accordance with the appropriate federal and state regulations, the CWA, the state's Antidegradation Policy and Water Quality Implementation Plan (Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, October 26, 2010).[192] LDEQ established limitations which are protective of the water quality necessary to support the designated uses of the receiving waterbody. A re-opener clause is included in Other Conditions of the permit should more stringent discharge limitations and/or additional restrictions be required in the future to maintain the water quality integrity and the designated uses of the receiving waterbodies.

ISSUE #20 *REQUEST FOR PUBLIC HEARING*

Sierra Club further requests an opportunity for members of the public to attend a hearing on this draft permit and submit further comment. [193]

LDEQ RESPONSE TO ISSUE #20

The LDEQ Office of Environmental Services (OES) published a public notice which requested public comment and notified the public of a public hearing regarding the draft water permit decision for

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189 https://www.govinfo.gov/content/pkg/CFR-2021-title40-vol31/pdf/CFR-2021-title40-vol31-part423.pdf
190 See EDMS Document No. 13186457.
191 LPDES Draft Permit LA0059030, Other Conditions, Paragraph S (EDMS Document No. 13216257, page 42 of 172).
192 See EDMS Document No. 7717002.
193 Written statement from J. Smith on behalf of Sierra Club (EDMS Document No. 13345295).

Entergy's Nelson Coal Unit 6. The public notice was published on the LDEQ website on May 6, 2022.[194] Copies of the public notice were also mailed or e-mailed to the individuals who have requested to be placed on the mailing list maintained by the OES on May 5, 2022. The comment period for the proposed permit began on May 6, 2022, and closed on June 20, 2022.

LDEQ conducted a public hearing on Thursday, June 16, 2022, at the City of Westlake Council Chambers, located at 1001 Mulberry Street, in Westlake, Louisiana.[195] The public hearing was attended by representatives from Entergy and two citizens. Each person in attendance gave oral comments.[196] The comment period ended June 20, 2022, providing the public with 45 days to submit comments. The commenter submitted written comments dated June 20, 2022, which included a request for a public hearing. No other requests for a public hearing were received. LDEQ determined that there was not enough public interest for a second hearing, and issued a letter denying the public hearing request.[197]

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194 See EDMS Document No. 13270352.

195 Hearing Package for the public hearing held Thursday, June 16, 2022 for Entergy Louisiana, LLC/Roy S. Nelson (EDMS Document No. 13399853).

196 Hearing Package for the public hearing held Thursday, June 16, 2022 for Entergy Louisiana, LLC/Roy S. Nelson (EDMS Document No. 13399853).

197 See EDMS Document No. 13626388.

Appendix A
Freshwater Ammonia Criteria Calculation
Entergy Louisiana, LLC
Roy S. Nelson Generating Plant (Coal Unit 6)
LA0059030, AI#19588

		Total NH3 as TAN (mg/L)*		Total NH3 as TAN (µg/L)	
Temp (deg C)	pH (SU)	Acute	Chronic	Acute	Chronic
27.11	7.1	8.46	1.14	**8464.76**	**2860.47**

*Criteria has been calculated using the formulas below which can be found at LAC 33:IX.1113.Table 1A. The values calculated in this spreadsheet are used to determine the need for water quality based limitations as described in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, July 5, 2022.

Acute: $$0.7249 \times \left(\frac{0.0114}{1+10^{7.204-pH}} + \frac{1.6181}{1+10^{pH-7.204}}\right) \times \min\left(51.93, 23.12 \times 10^{0.036 \times (20-T)}\right)$$

Chronic**: $$0.8876 \times \left(\frac{0.0278}{1+10^{7.688-pH}} + \frac{1.1994}{1+10^{pH-7.688}}\right) \times \left(2.126 \times 10^{0.028 \times (20-\max(T,7))}\right)$$

**The chronic criteria has been multiplied by 2.5 to be representative of a 4 day averaging period.

Ambient Data*

Temp (deg C)	
2020-08-06	26.30
2020-07-09	28.10
2020-06-04	27.20
2020-05-12	22.90
2020-04-08	23.80
2020-03-05	14.40
2020-02-06	12.70
2020-01-07	13.60
2019-12-04	15.50
2019-11-07	14.40
2019-11-06	14.20
2019-10-16	24.40
90th percentile	27.11

pH (SU)	
2020-08-06	5.70
2020-07-09	5.90
2020-06-04	6.00
2020-05-12	6.00
2020-04-08	6.10
2020-03-05	8.40
2020-02-06	5.50
2020-01-07	6.00
2019-12-04	6.80
2019-11-07	7.10
2019-11-06	
2019-10-16	6.60
90th percentile	7.10

* Ambient data has been obtained from the LEAU Web Portal (waterdata.deq.louisiana.gov). The most recent two years or at least 10 data points have been used to calculate the 90th percentile for temperature and the 90th percentile for pH.

NetDMR and Electronic DMR Reporting

Useful Information

- **NetDMR Homepage**
  - https://netdmr.epa.gov

- **Steps to Submit DMRs via NetDMR**
  1. Register in CDX (https://netdmr.epa.gov)
  2. Request Access to Permit in NetDMR
     - Submit Subscriber Agreement to LDEQ (electronically or via paper)
     - Receive approval by LDEQ
  3. Enter DMR data and add any attachments
     - Enter Data or No Data Indicator (NODI) Codes
       - NODI codes are used to indicate why no DMR value was submitted for a specific data field, parameter, or whole DMR
       - List of Common NODI Codes
         - C = no discharge
         - 9 = conditional monitoring/ not required this period
         - E = analysis not conducted (failure to sample)
         - B = below detection limit
         - D = lost sample
         - G = equipment failure
         - H = invalid test
     - NetDMR Attachments (cover letters, noncompliance reports, etc.)
       - Click the "Add Attachment" button on the DMR screen. Click "Browse…" and select the document you wish to attach to the DMR
       - LDEQ only accepts PDF files as attachments
  4. Sign and Submit On-line
  5. Download Submittal from NetDMR or EDMS
     - http://deq.louisiana.gov/page/edms

- **LDEQ NetDMR Information**
  - http://deq.louisiana.gov/page/netdmr
  - Email deqnetdmr@la.gov
  - Call 225-219-3752 or 225-219-3767

- **LDEQ NetDMR Step by Step Guides and Training Schedule**
  - http://deq.louisiana.gov/page/netdmr-training

- **LDEQ Public Website**
  - http://deq.louisiana.gov/
  - 225-219-5337 or 866-896-5337 (customer service)

- **Waiver for Electronic Reporting of DMRs**
  - Electronic reporting of DMRs is required by the EPA Electronic Reporting Rule
    - https://www.epa.gov/compliance/npdes-ereporting
    - Phase I- Requires electronic submittal of DMRs as of December 21, 2016
    - Phase II- Requires electronic submittal of NOIs and Program Reports as of December 21, 2020
  - Waivers will be issued on a very strict basis
    - Requests may be submitted via email to deqnetdmr@la.gov or mailed to P.O. Box 4312, Baton Rouge, LA 70821

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME

ADDRESS

FACILITY
LOCATION

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved.
OMB No. 2040-0004

PERMIT NUMBER	DISCHARGE NUMBER

	MONITORING PERIOD						
	YEAR	MO	DAY		YEAR	MO	DAY
FROM				TO			

☐ Check here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
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NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.		TELEPHONE		DATE		
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Paperwork Reduction Act Notice

Public Reporting Burden for this collection information is estimated to vary from a range of 10 hours as an average per response for some minor facilities, to 110 hours as an average per response for some major facilities, with a weighted average for major and minor facilities of 18 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to ICR Coordinator, Office of Wastewater Management (MC4201M), US Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

General Instructions

1. If form has been partially completed by preprinting, disregard instructions directed at entry of that information already preprinted.

2. Enter *"Permittee Name/Mailing Address* (and facility name/location, if different)," *"Permit Number,"* and *"Discharge Number"* where indicated. (A separate form is required for each discharge.)

3. Enter dates beginning and ending *"Monitoring Period"* covered by form where indicated.

4. Enter each *"Parameter"* as specified in monitoring requirements of permit.

5. Enter *"Sample Measurement"* data for each parameter under *"Quantity"* and *"Quality"* in units specified in permit.

6. Enter *"Permit Requirement"* for each parameter under *"Quantity"* and *"Quality"* as specified in permit.

7. Under *"No Ex"* enter number of sample measurements during monitoring period that exceed maximum (and/or minimum or 7-day average as appropriate) permit requirement for each parameter. If none, enter *"0"*.

8. Enter *"Frequency of Analysis"* both as *"Sample Measurement"* (actual sample type used during monitoring period) and as *"Permit Requirement,"* specified in permit. (e.g., Enter *"Cont,"* for continuous monitoring, *"1/7"* for one day per week, *"1/30"* for one day per month, *"1/90"* for one day per quarter, etc.)

9. Enter *"Sample Type"* both as *"Sample Measurement"* (actual sample type used during monitoring period) and as *"Permit Requirement,"* (e.g., Enter *"Grab"* for individual sample, *"24HC"* for 24-hour composite, *"N/A"* for continuous monitoring, etc.)

10. Where violations of permit requirements are reported, attach a brief explanation to describe cause and corrective actions taken, and reference each violation by date.

11. If "no discharge" occurs during monitoring period, enter *"No Discharge"* across form in place of data entry.

12. Enter *"Name/Title of Principal Executive Officer"* with *"Signature of Principal Executive Officer of Authorized Agent,"* *"Telephone Number,"* and *"Date"* at bottom of form.

13. Mail signed Report to Office(s) by date(s) specified in permit. Retain copy for your records.

14. More detailed Instructions for use of this *Discharge Monitoring Report (DMR)* form may be obtained from Office(s) specified in permit.

Legal Notice

This report is required by law (33 U.S.C. 1318; 40 C.F.R. 125.27). Failure to report or failure to report truthfully can result in civil penalties not to exceed $ 10,000 per day of violation; or in criminal penalties not to exceed $25,000 per day of violation, or by imprisonment for not more than one year, or by both.

GUIDANCE TO UNDERSTANDING THE WATER PERMIT FORMAT

Components of the Permit Report

1. **General Information Sheet** - A summary of the facility information, such as all permit and ID numbers, facility physical and mailing addresses, latitude/longitude at front gate, facility contacts and phone numbers, Standard Industrial Classification (SIC) and North American Industry Classification (NAICS) codes.

2. **Inventory Sheet** - Lists all SIs and descriptions, any relationships that may exist between SIs, and any alternate identification for the SIs.

3. **Permit Requirements** - Contains the Effluent Limitations and Monitoring Requirements, Submittal/Action Requirements, and Narrative Requirements Sections for each SI. The requirements for the FAC are listed after the requirements for each outfall.

   a. Effluent Limitations and Monitoring Requirements – Outfalls are listed; including Parameters, Discharge Limitations and Units, Sample Type, Frequency, and Which Months. See example below.

RLP 2 : Outfall 001 – outfall description

Parameter	Discharge Limitations								Monitoring Requirements		
	Storet	Quantity/ Loading Average	Quantity/ Loading Maximum	Quantity/ Loading Units	Quality/ Conc. Minimum	Quality/ Conc. Average	Quality/ Conc. Maximum	Quality/ Conc. Units	Frequency	Sample Type	Which Months
TSS (Total Suspended Solids)	00530	375 MO AVG		lb/day		30 MO AVG	45 WKLY AVG	mg/L	quarterly	grab sampling	All Year
Mercury – Interim ◊	71900	Report MO AVG	Report MO AVG	lb/day					quarterly	24-hr composite	All Year
Mercury – Final ◊	71900	0.00021 MO AVG	0.0005 MO AVG	lb/day					quarterly	24-hr composite	All Year

◊ - Phases

   b. Submittal/Action Requirements – All submittal actions are grouped by SI and follow the limitations and monitoring requirements section.

   c. Narrative Requirements – Other requirements that don't fall under effluent limitations and monitoring section. Grouped by SI and follow the submittal action section.

Definitions

Agency Interest (AI) - Any entity that is being regulated or is of interest to LDEQ.
Agency Interest (AI) ID – Unique numerical identifier of the AI.
FAC – Subject Item designated for requirements at the facility level.
Phases – Periods during which the associated requirement applies to the particular parameter. *For Example,* if the permit contains a compliance schedule with interim limits, this column will state the phase in which the compliance schedule of the associated requirement is applicable.
Subject Item (SI) - Components or groups of components of an AI, including the AI itself. Each SI is defined by a category and a type.
Subject Item ID - Identifier assigned sequentially to each SI within an AI. It is composed of three letters representing the category of the SI and is followed by the sequentially assigned number. *For Example,* RLP 1 & FAC 1.
TEMPO Activity Number - Each action taken for an AI. This identifier consists of a total of 11 characters, 3 letters represents the type of action followed by four digits representing the year the application was received by LDEQ, and four digits which are sequentially assigned. Example PER20130001, this would identify the activity as the *first permitting* action taken for this Agency Interest (AI) in the year ***2013;*** GEN20140001 would identify the activity as the first *general permitting* action taken for this Agency Interest (AI) in the year ***2014.***
Which Months - Denotes the months that have a particular parameter requirement. This is generally used for seasonal limitations.

General Information Sheet

AI ID: 19588 - Entergy Louisiana LLC - Roy S Nelson Electric Generating Plant (Coal Unit 6)

Alternate Identifiers	Name	User Group	Dates
2201900014	AFS (EPA Air Facility System)	AFS (EPA Air Facility System)	01-01-2000
0520-00014	CDS Number	CDS Number	05-27-1993
8361211	EPA EIS Facility Site ID	EPA EIS Facility Site ID	01-01-2008
7[redacted]2730	Federal Tax ID	Federal Tax ID	11-21-1999
LAD985185339	Entergy LA LLC - Roy S Nelson	Haz Waste EPA ID Number	10-06-2015
LA0059030	LPDES Permit #	LPDES Permit #	06-25-2003
	Entergy Gulf States Inc Roy S Nelson Units 3 & 4 Gas & Oil	Multimedia	08-15-1999
	Entergy/R S Nelson	Multimedia	08-05-2002
	Entergy Corp/Nels St	Multimedia	08-05-2002
1393	ORIS Code	ORIS Code	09-16-2008
	Priority 2 Emergency Site	Priority 2 Emergency Site	07-31-2012
LA-4079-L01	Radioactive Material License	Radiation License Number	03-24-2000
LA-482A-N01	Norm	Radiation License Number	08-25-2008
GD-019-0261	Site ID #	Solid Waste Facility No.	05-27-1993
P-0018	Standard Operating Permit	Solid Waste Permitting	05-26-1983
P-0019	Standard Operating Permit	Solid Waste Permitting	05-26-1983
P-0078	Standard Operating Permit	Solid Waste Permitting	04-02-1986
1785	Entergy Gulf States Inc - Nelson Station Units #1-4	TEMPO Merge	02-08-2001
20595	Roy S Nelson Station Unit 6	TEMPO Merge	04-16-2001
22127	Gulf States Utilities Roy S Nelson	TEMPO Merge	04-16-2001
31730	Entergy Gulf States Inc Roy S Nelson Units 3 & 4 Gas & Oil	TEMPO Merge	02-08-2001
73648	Roy S Nelson Station	TEMPO Merge	02-08-2001
7901	Entergy Gulf States Inc Roy S Nelson Unit 6 Coal	TEMPO Merge	02-08-2001
70669NTRGY3500H	TRI #	Toxic Release Inventory	07-12-2004
10004588	UST Facility ID #	UST FID #	10-11-2002

Physical Location: 3500 Houston River Rd
(portion of)

Westlake, LA 70669

Main FAX: 5045766936
Main Phone: 5045766037

Mailing Address: PO Box 61000 Mail Unit L-ENT-4E
New Orleans, LA 701611000

Location of Front Gate: -93.297692 longitude, 30.271789 latitude

General Information Sheet

AI ID: 19588 - Entergy Louisiana LLC - Roy S Nelson Electric Generating Plant (Coal Unit 6)

Related People:	Mailing Address	Work Phone	Email	Relationship
Austin Langley	639 Loyola Ave New Orleans, LA 70113	3373041766	wlangle@entergy.com	Emission Inventory Facility Contact for
Catherine Cheramie	639 Loyola Ave New Orleans, LA 70113	3374946046	ccheram@entergy.com	Asbestos Contact for
Dylan Lormand	3500 Houston River Rd Westlake, LA 70669	3374946068	dlorman@entergy.com	Accident Prevention Contact for
Dylan Lormand	3500 Houston River Rd Westlake, LA 70669	3374946068	dlorman@entergy.com	Asbestos Contact for
Jason Willis	PO Box 61000 Mail Unit L-ENT-4E New Orleans, LA 701611000	2812910193	jwill72@entergy.com	Responsible Official for
Lauren Carpenter	PO Box 61000 Mail Unit L-ENT-4E New Orleans, LA 701611000	5045767050	lcarpe1@entergy.com	Underground Storage Tank Contact for
Lauren Carpenter	PO Box 61000 Mail Unit L-ENT-4E New Orleans, LA 701611000	5045767050	lcarpe1@entergy.com	Water Permit Contact For
Nelson Morvant	PO Box 61000 Mail Unit L-ENT-4E New Orleans, LA 701611000	2254540287	nmorvan@entergy.com	Solid Waste Permit Contact for
Richie Corvers	PO Box 61000 Mail Unit L-ENT-4E New Orleans, LA 701611000	5045764928	rcorver@entergy.com	Air Permit Contact For
Richie Corvers	PO Box 61000 Mail Unit L-ENT-4E New Orleans, LA 701611000	5045764928	rcorver@entergy.com	Disaster/Emergency Contact for
Richie Corvers	PO Box 61000 Mail Unit L-ENT-4E New Orleans, LA 701611000	5045764928	rcorver@entergy.com	Radiation Contact For

Related Organizations:	Mailing Address	Work Phone	Relationship
Entergy Gulf States LA LLC	639 Loyola Ave New Orleans, LA 70113	5045767050	Accident Prevention Billing Party for
Entergy Gulf States LA LLC	639 Loyola Ave New Orleans, LA 70113	5045767050	Operates
Entergy Gulf States LA LLC	639 Loyola Ave New Orleans, LA 70113	5045767050	Owns
Entergy Gulf States LA LLC	639 Loyola Ave New Orleans, LA 70113	5045767050	Radiation Certification Billing Party for
Entergy Louisiana LLC	639 Loyola Ave Mail Unit L-ENT-4E New Orleans, LA 70113	3373041766	Emission Inventory Billing Party
Entergy Louisiana LLC	3500 Houston River Rd Westlake, LA 70669	5044365910	Radiation Registration Billing Party for
Entergy Louisiana LLC	PO Box 61000 Mail Unit L-ENT-4E New Orleans, LA 701611000	5045766037	Water Billing Party for
Louisiana Environmental Support	639 Loyola Ave Mail Unit L-ENT-4E New Orleans, LA 70113	5045765699	Air Billing Party for
Louisiana Environmental Support	639 Loyola Ave Mail Unit L-ENT-4E New Orleans, LA 70113	5045765699	Groundwater Billing Party for
Louisiana Environmental Support	639 Loyola Ave Mail Unit L-ENT-4E New Orleans, LA 70113	5045765699	Haz. Waste Billing Party for
Louisiana Environmental Support	639 Loyola Ave Mail Unit L-ENT-4E New Orleans, LA 70113	5045765699	Solid Waste Billing Party for

SIC Codes: 4911, Electric services

NAIC Codes: 221112, Fossil Fuel Electric Power Generation

General Information Sheet

AI ID: 19588 - Entergy Louisiana LLC - Roy S Nelson Electric Generating Plant (Coal Unit 6)

Note: This report entitled "General Information" contains a summary of facility-level information contained in LDEQ's TEMPO database for this facility and is not considered a part of the permit. Please review the information contained in this document for accuracy and completeness. If any changes are required, or if you have questions regarding this document, please email the Permit Support Services Division at facupdate@la.gov.

PERMIT INVENTORIES

AI No.: 19588

Entergy Louisiana LLC - Roy S Nelson Electric Generating Plant (Coal Unit 6)

Activity Number: PER20200003

Permit No.: LA0059030

Subject Item Inventory:

SI ID	Designation	Description
FAC 0001	LA0059030	Water Agency Interest
RLP 0001	Outfall 001	the intermittent discharge of treated sanitary wastewater from the sewage package treatment plant that services the administration building, control room building, and heavy equipment maintenance building restrooms
RLP 0002	Outfall 002	the intermittent discharge of cooling tower blowdown from the circular, induced air cooling tower that services Unit 6
RLP 0003	Outfall 003	the continuous discharge of coal pile runoff; coal ash disposal landfill runoff; coal handling area runoff; coal ash disposal landfill combustion residual leachate; optional routing of cooling tower blowdown; cooling tower drift; miscellaneous non-process wastewaters; low volume wastewaters; bottom ash transport water; bottom ash purge water; wastewater associated with demolition activities; groundwater infiltration; & previously monitored hydrostatic test wastewater from Internal Outfall 303
RLP 0006	Internal Outfall 303	the intermittent discharge of hydrostatic test wastewater from hydrostatic tests conducted on various pipes, tanks, vessels, and/or equipment
RLP 0007	Outfall 004	the intermittent discharge of stormwater runoff from the area east of the Turbine Building, Fan Alley, and Bowl Mill areas; de minimis amounts of miscellaneous non-process wastewaters; wastewater associated with demolition activities; and previously monitored hydrostatic wastewater from Internal Outfall 303
RLP 0048	Outfall 005	the intermittent discharge of overflow stormwater from the settling pond that normally discharges through Outfall 003 and previously monitored hydrostatic wastewater from Internal Outfall 303

PERMIT INVENTORIES
AI No.: 19588
Entergy Louisiana LLC - Roy S Nelson Electric Generating Plant (Coal Unit 6)
Activity Number: PER20200003
Permit No.: LA0059030

Relationships:

SI ID	Description	Relationship	SI ID	Description
RLP 0003	Outfall 003 - the continuous discharge of coal pile runoff; coal ash disposal landfill runoff; coal handling area runoff; coal ash disposal landfill combustion residual leachate; optional routing of cooling tower blowdown; cooling tower drift; miscellaneous non-process wastewaters; low volume wastewaters; bottom ash transport water; bottom ash purge water; wastewater associated with demolition activities; groundwater infiltration; & previously monitored hydrostatic test wastewater from Internal Outfall 303	Final	RLP 0006	Internal Outfall 303 - the intermittent discharge of hydrostatic test wastewater from hydrostatic tests conducted on various pipes, tanks, vessels, and/or equipment

PERMIT INVENTORIES
AI No.: 19588
Entergy Louisiana LLC - Roy S Nelson Electric Generating Plant (Coal Unit 6)
Activity Number: PER20200003
Permit No.: LA0059030

SI ID	Description	Relationship	SI ID	Description
RLP 0007	Outfall 004 - the intermittent discharge of stormwater runoff from the area east of the Turbine Building, Fan Alley, and Bowl Mill areas; de minimis amounts of miscellaneous non-process wastewaters; wastewater associated with demolition activities; and previously monitored hydrostatic wastewater from Internal Outfall 303	Final	RLP 0006	Internal Outfall 303 - the intermittent discharge of hydrostatic test wastewater from hydrostatic tests conducted on various pipes, tanks, vessels, and/or equipment
RLP 0048	Outfall 005 - the intermittent discharge of overflow stormwater from the settling pond that normally discharges through Outfall 003 and previously monitored hydrostatic wastewater from Internal Outfall 303	Final	RLP 0006	Internal Outfall 303 - the intermittent discharge of hydrostatic test wastewater from hydrostatic tests conducted on various pipes, tanks, vessels, and/or equipment

PERMIT No.: LA0059030
AI No.: 19588

DEQ
LOUISIANA

OFFICE OF ENVIRONMENTAL SERVICES

Water Discharge Permit

Pursuant to the Clean Water Act, as amended (33 U.S.C. 1251 et seq.), and the Louisiana Environmental Quality Act, as amended (La. R. S. 30:2001 et seq.), rules and regulations effective or promulgated under the authority of said Acts, and in reliance on statements and representations heretofore made in the application, a Louisiana Pollutant Discharge Elimination System permit is issued authorizing

Entergy Louisiana, LLC
Roy S. Nelson Electric Generating Plant (Coal Unit 6)
Post Office Box 61000
Mail Unit L-ENT-4E
New Orleans, LA 70161-1000

Type Facility: steam electric generating plant

Location: 3500 Houston River Road, Westlake
Calcasieu Parish

Receiving Waters: Houston River (Subsegment 030806)

to discharge in accordance with effluent limitations and monitoring requirements, narrative requirements, other conditions, and standard conditions attached hereto.

This permit shall become effective on May 1, 2023

This permit and the authorization to discharge shall expire five (5) years from the effective date of the permit.

Issued on March 31, 2023

Bliss M. Higgins
Assistant Secretary

PERMIT REQUIREMENTS

Agency Interest No.: 19588
Entergy Louisiana LLC - Roy S Nelson Electric Generating Plant (Coal Unit 6)
TEMPO Activity No.: PER20200003
Permit No.: LA0059030

RLP 1 : Outfall 001 - the intermittent discharge of treated sanitary wastewater from the sewage package treatment plant that services the administration building, control room building, and heavy equipment maintenance building restrooms

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Such discharges shall be limited and monitored by the permittee as specified below:

Parameter	Storet	Discharge Limitations							Monitoring Requirements		
		Quantity/ Loading Average	Quantity/ Loading Maximum	Quantity/ Loading Units	Quality/ Conc. Minimum	Quality/ Conc. Average	Quality/ Conc. Maximum	Quality/ Conc. Units	Frequency	Sample Type	Which Months
Flow, in conduit or through treatment plant	50050	Report MO AVG	Report DAILY MX	million gallons/day					quarterly	estimate	All Year
BOD, 5-day (20 degrees C)	00310					30 MO AVG	45 DAILY MX	mg/l	quarterly	grab sampling	All Year
Fecal coliform, general	74055					200 MOAV GEO	400 DAILY MX	colonies/100 ml	quarterly	grab sampling	All Year
pH	00400				6.0 INST MIN		9.0 INST MAX	s.u.	quarterly	grab sampling	All Year
TSS (Total Suspended Solids)	00530					30 MO AVG	45 DAILY MX	mg/l	quarterly	grab sampling	All Year

SUBMITTAL/ACTION REQUIREMENTS

S-1 LAC 33:IX.2701.L.4 Submit Quarterly Discharge Monitoring Report (DMR) : Due quarterly, by the 15th of January, April, July, and October. Electronically submit (unless DEQ gives written authorization to submit monitoring results in an alternative format), in accordance with LAC 33:I.2101.A & B no later than April 15th for monitoring in the months of January, February and March, no later than July 15th for monitoring in the months of April, May, and June, no later than October 15th for monitoring in the months of July, August, and September, and no later than January 15th for monitoring in the months of October, November, and December.

NARRATIVE REQUIREMENTS

N-1 LAC 33:IX.2701.L.4 Discharge Monitoring Report
Prepare and submit DMRs for each outfall. If you have a No Discharge Event at any of the monitoring outfall(s) during the reporting period, use a No Data Discharge Indicator (NODI) Code of "C" for electronic DMRs or mark an "X" in the No Discharge box located in the upper right corner of the paper DMR. If not submitting electronically, submit duplicate sets of DMRs (one set of originals and one set of copies) signed and certified as required by LAC 33:IX.2503.B, and all other reports (one set of originals) required by this permit, to the Department of Environmental Quality, Office of Environmental Compliance, Permit Compliance Unit, Post Office Box 4312, Baton Rouge, Louisiana 70821-4312.

RLP 1 : Outfall 001 - the intermittent discharge of treated sanitary wastewater from the sewage package treatment plant that services the administration building, control room building, and heavy equipment maintenance building restrooms

NARRATIVE REQUIREMENTS

N-2	LAC 33:IX.2701.J.4	Monitored at the point of discharge from the sewage treatment facility, prior to mixing with other waters.
N-3	LAC 33:IX.1113.B	There shall be no discharge of floating or settleable solids or visible foam in other than trace amounts, nor of free oil or other oily materials, nor of toxic materials in quantities such as to cause toxicity to aquatic organisms.
N-4	LAC 33:IX.2701	Future water quality studies may indicate potential toxicity from the presence of residual chlorine in the treatment facility's effluent. Therefore, a future Total Residual Chlorine Limitation may be required if chlorine is used as a method of disinfection. In many cases, this becomes a NO MEASUREABLE Total Residual Chlorine Limitation. If such a limitation is imposed, provide for dechlorination of the effluent prior to discharge.
N-5	LAC 33:IX.2701	The monthly average for bacteria indicators (fecal coliform) is the geometric mean of the values for all effluent samples collected in the calendar month.

RLP 2 : Outfall 002 - the intermittent discharge of cooling tower blowdown from the circular, induced air cooling tower that services Unit 6

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Such discharges shall be limited and monitored by the permittee as specified below:

Parameter	Storet	Discharge Limitations							Monitoring Requirements		
		Quantity/ Loading Average	Quantity/ Loading Maximum	Quantity/ Loading Units	Quality/ Conc. Minimum	Quality/ Conc. Average	Quality/ Conc. Maximum	Quality/ Conc. Units	Frequency	Sample Type	Which Months
Flow, in conduit or through treatment plant	50050	Report MO AVG	Report DAILY MX	million gallons/day					weekly	estimate	All Year
Chlorine, free available	50064					0.2 MO AVG	0.5 DAILY MX	mg/l	weekly	grab sampling	All Year
Chromium, Total (as Cr)	01034					0.2 MO AVG	0.2 DAILY MX	mg/l	annually	grab sampling	All Year
pH	00400				6.0 INST MIN		9.0 INST MAX	s.u.	weekly	grab sampling	All Year
Water temperature, degrees F	00011						97 INST MAX	F	daily	grab sampling	All Year
Zinc, total (as Zn)	01092					330 MO AVG	783 DAILY MX	ug/l	quarterly	grab sampling	All Year
Biomonitoring, Coefficient of Variation, 7-Day Chronic, Ceriodaphnia dubia	TQP3B						Report MAXIMUM	percent	quarterly	24-hr composite	All Year
Biomonitoring, Coefficient of Variation, 7-Day Chronic, Pimephales promelas	TQP6C						Report MAXIMUM	percent	quarterly	24-hr composite	All Year
Biomonitoring, Low Flow Pass/Fail Lethality Static Renewal, 7-Day Chronic, Ceriodaphnia dubia	TLP3B				Report 7 DA MIN	Report MO AV MN		pass = 0, fail = 1	quarterly	24-hr composite	All Year
Biomonitoring, Low Flow Pass/Fail Lethality Static Renewal, 7-Day Chronic, Pimephales promelas	TLP6C				Report 7 DA MIN	Report MO AV MN		pass = 0, fail = 1	quarterly	24-hr composite	All Year
Biomonitoring, NOEC Lethality Static Renewal, 7-Day Chronic, Ceriodaphnia dubia	TOP3B				Report 7 DA MIN	Report MO AV MN		percent	quarterly	24-hr composite	All Year
Biomonitoring, NOEC Lethality Static Renewal, 7-Day Chronic, Pimephales promelas	TOP6C				Report 7 DA MIN	Report MO AV MN		percent	quarterly	24-hr composite	All Year

RLP 2 : Outfall 002 - the intermittent discharge of cooling tower blowdown from the circular, induced air cooling tower that services Unit 6

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Such discharges shall be limited and monitored by the permittee as specified below:

Parameter	Storet	Discharge Limitations							Monitoring Requirements		
		Quantity/ Loading Average	Quantity/ Loading Maximum	Quantity/ Loading Units	Quality/ Conc. Minimum	Quality/ Conc. Average	Quality/ Conc. Maximum	Quality/ Conc. Units	Frequency	Sample Type	Which Months
Biomonitoring, NOEC Sub-Lethality Static Renewal, 7-Day Chronic, Ceriodaphnia dubia	TPP3B				Report 7 DA MIN	Report MO AV MN		percent	quarterly	24-hr composite	All Year
Biomonitoring, NOEC Sub-Lethality Static Renewal, 7-Day Chronic, Pimephales promelas	TPP6C				Report 7 DA MIN	Report MO AV MN		percent	quarterly	24-hr composite	All Year
Biomonitoring, Pass/Fail, Static Renewal, 7-Day Chronic, Ceriodaphnia dubia	TGP3B				Report 7 DA MIN	Report MO AV MN		pass = 0, fail = 1	quarterly	24-hr composite	All Year
Biomonitoring, Pass/Fail, Static Renewal, 7-Day Chronic, Pimephales promelas	TGP6C				Report 7 DA MIN	Report MO AV MN		pass = 0, fail = 1	quarterly	24-hr composite	All Year
Biomonitoring, Whole Effluent Toxicity, Retest #1 lethal - Ceriodaphnia dubia	CE22415				Report 7 DA MIN	Report MO AV MN		pass = 0, fail = 1	as needed	24-hr composite	All Year
Biomonitoring, Whole Effluent Toxicity, Retest #1 lethal - Pimephales promelas	PI22415				Report 7 DA MIN	Report MO AV MN		pass = 0, fail = 1	as needed	24-hr composite	All Year
Biomonitoring, Whole Effluent Toxicity, Retest #1 sub-lethal - Ceriodaphnia dubia	CE22418				Report 7 DA MIN	Report MO AV MN		pass = 0, fail = 1	as needed	24-hr composite	All Year
Biomonitoring, Whole Effluent Toxicity, Retest #1 sub-lethal - Pimephales promelas	PI22418				Report 7 DA MIN	Report MO AV MN		pass = 0, fail = 1	as needed	24-hr composite	All Year
Biomonitoring, Whole Effluent Toxicity, Retest #2 lethal - Ceriodaphnia dubia	CE22416				Report 7 DA MIN	Report MO AV MN		pass = 0, fail = 1	as needed	24-hr composite	All Year
Biomonitoring, Whole Effluent Toxicity, Retest #2 lethal - Pimephales promelas	PI22416				Report 7 DA MIN	Report MO AV MN		pass = 0, fail = 1	as needed	24-hr composite	All Year

RLP 2 : Outfall 002 - the intermittent discharge of cooling tower blowdown from the circular, induced air cooling tower that services Unit 6

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Such discharges shall be limited and monitored by the permittee as specified below:

Parameter	Storet	Discharge Limitations							Monitoring Requirements		
		Quantity/ Loading Average	Quantity/ Loading Maximum	Quantity/ Loading Units	Quality/ Conc. Minimum	Quality/ Conc. Average	Quality/ Conc. Maximum	Quality/ Conc. Units	Frequency	Sample Type	Which Months
Biomonitoring, Whole Effluent Toxicity, Retest #2 sub-lethal - Ceriodaphnia dubia	CE22419				Report 7 DA MIN	Report MO AV MN		pass = 0, fail = 1	as needed	24-hr composite	All Year
Biomonitoring, Whole Effluent Toxicity, Retest #2 sub-lethal - Pimephales promelas	PI22419				Report 7 DA MIN	Report MO AV MN		pass = 0, fail = 1	as needed	24-hr composite	All Year
Biomonitoring, Whole Effluent Toxicity, Retest #3 lethal - Ceriodaphnia dubia	CE51443				Report 7 DA MIN	Report MO AV MN		pass = 0, fail = 1	as needed	24-hr composite	All Year
Biomonitoring, Whole Effluent Toxicity, Retest #3 lethal - Pimephales promelas	PI51443				Report 7 DA MIN	Report MO AV MN		pass = 0, fail = 1	as needed	24-hr composite	All Year
Biomonitoring, Whole Effluent Toxicity, Retest #3 sub-lethal - Ceriodaphnia dubia	CE51444				Report 7 DA MIN	Report MO AV MN		pass = 0, fail = 1	as needed	24-hr composite	All Year
Biomonitoring, Whole Effluent Toxicity, Retest #3 sub-lethal - Pimephales promelas	PI51444				Report 7 DA MIN	Report MO AV MN		pass = 0, fail = 1	as needed	24-hr composite	All Year

SUBMITTAL/ACTION REQUIREMENTS

S-1 LAC 33:IX.2701.L.4 Submit Quarterly Discharge Monitoring Report (DMR): Due quarterly, by the 15th of January, April, July, and October. Electronically submit (unless DEQ gives written authorization to submit monitoring results in an alternative format), in accordance with LAC 33:I.2101.A and B no later than April 15th for monitoring in the months of January, February and March, no later than July 15th for monitoring in the months of April, May, and June, no later than October 15th for monitoring in the months of July, August, and September, and no later than January 15th for monitoring in the months of October, November, and December.

S-2 LAC 33:IX.2701.L.4 Submit Monthly Discharge Monitoring Report (DMR) : Due monthly, by the 15th of the month. Electronically submit (unless DEQ gives written authorization to submit monitoring results in an alternative format), in accordance with LAC 33:I.2101.A and B no later than the 15th day of the month following each reporting period.

RLP 2 : Outfall 002 - the intermittent discharge of cooling tower blowdown from the circular, induced air cooling tower that services Unit 6

SUBMITTAL/ACTION REQUIREMENTS

S-3	LAC 33:IX.2701	Submit Annual Discharge Monitoring Report (DMR) : Due annually, by the 15th of January. Electronically submit (unless DEQ gives written authorization to submit monitoring results in an alternative format), in accordance with LAC 33:I.2101.A & B no later than January 15th, for monitoring in the months of January through December.

NARRATIVE REQUIREMENTS

N-1	LAC 33:IX.2701.L.4	"Discharge Monitoring Report Prepare and submit DMRs for each outfall. If you have a No Discharge Event at any of the monitoring outfall(s) during the reporting period, use a No Data Discharge Indicator (NODI) Code of ""C"" for electronic DMRs or mark an ""X"" in the No Discharge box located in the upper right corner of the paper DMR. If not submitting electronically, submit duplicate sets of DMRs (one set of originals and one set of copies) signed and certified as required by LAC 33:IX.2503.B, and all other reports (one set of originals) required by this permit, to the Department of Environmental Quality, Office of Environmental Compliance, Permit Compliance Unit, Post Office Box 4312, Baton Rouge, Louisiana 70821-4312".
N-2	LAC 33:IX.1113.B	"There shall be no discharge of floating or settleable solids or visible foam in other than trace amounts, nor of free oil or other oily materials, nor of toxic materials in quantities such as to cause toxicity to aquatic organisms".
N-3	LAC 33:IX.2701.J.4	Monitored at the point of discharge from the cooling tower blowdown line, prior to mixing with other waters.
N-4	LAC 33:IX.2701.J.2	Free Available Chlorine (FAC): Samples shall be representative of any periodic episodes of chlorination or chlorine compound usage discharged on an intermittent basis. See Other Conditions Paragraph N of the permit. Discharge monitoring reports shall be submitted on a monthly basis. If none of the above conditions occur during the month, then FAC requirements may be suspended for that month. However, a DMR must still be submitted with a notation in the comment section to indicate this is the case. When reporting DMRs electronically and monitoring is not required during the month, use a no data indicator (NODI) code of 9 for conditional/not required. Further explanation can be provided in the notes section of the DMR.
N-5	LAC 33:IX.2701	Temperature and pH sampling are not required if cooling tower blowdown is routed to the settling pond and discharged through Outfall 003 because additional treatment takes place in the settling pond. However, a notation shall be made in the Outfall 002 DMR comment section to indicate this is the case. When reporting DMRs electronically and monitoring is not required during the month, use a no data indicator (NODI) code of 9 for conditional/not required. Further explanation can be provided in the notes section of the DMR.
N-6	LAC 33:IX.2701	Temperature: Analyze immediately.

RLP 2 : Outfall 002 - the intermittent discharge of cooling tower blowdown from the circular, induced air cooling tower that services Unit 6

NARRATIVE REQUIREMENTS

N-7	LAC 33:IX.2701	Cooling tower blowdown must be sampled for Free Available Chlorine, Total Chromium, and Total Zinc and Biomonitoring must be performed as required by the permit in all three discharge scenarios: a) When discharging directly through Outfall 002; b) prior to routing the cooling tower blowdown directly to the settling pond for discharge through Outfall 003; or c) prior to using the cooling tower blowdown in the bottom ash handling system for subsequent discharge through Outfall 003.
N-8	LAC 33:IX.2701	Biomonitoring shall be conducted during periods of chlorination, biocide(s) usage or potentially toxic substances being discharged. Discharge Monitoring Reports (DMRs) shall be submitted on a quarterly basis. If none of the above conditions occur during the quarter, then biomonitoring requirements may be suspended for that quarter. However, a DMR must be turned in with a notation in the comment section to indicate this is the case. When reporting DMRs electronically and monitoring is not required during the quarter, use a no data indicator (NODI) code of 9 for conditional/not required. Further explanation can be provided in the notes section of the DMR.
N-9	LAC 33:IX.2701	Biomonitoring: See Other Conditions, Paragraph X.

RLP 3 : Outfall 003 - the continuous discharge of coal pile runoff; coal ash disposal landfill runoff; coal handling area runoff; coal ash disposal landfill combustion residual leachate; optional routing of cooling tower blowdown; cooling tower drift; miscellaneous non-process wastewaters; low volume wastewaters; bottom ash transport water; bottom ash purge water; wastewater associated with demolition activities; groundwater infiltration; & previously monitored hydrostatic test wastewater from Internal Outfall 303

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Such discharges shall be limited and monitored by the permittee as specified below:

Parameter	Storet	Discharge Limitations							Monitoring Requirements		
		Quantity/ Loading Average	Quantity/ Loading Maximum	Quantity/ Loading Units	Quality/ Conc. Minimum	Quality/ Conc. Average	Quality/ Conc. Maximum	Quality/ Conc. Units	Frequency	Sample Type	Which Months
Flow, in conduit or through treatment plant	50050	Report MO AVG	Report DAILY MX	million gallons/day					continuously	Recorder	All Year
Flow, in conduit or through treatment plant - See Comments	50050	0.071 30DYROLAVG		million gallons/day					daily	flow rate monitoring device	All Year
Carbon, total organic	00680						50 DAILY MX	mg/l	monthly	grab sampling	All Year
Oil and grease	00556					15 MO AVG	20 DAILY MX	mg/l	monthly	grab sampling	All Year
pH	00400				6.0 INST MIN		9.0 INST MAX	s.u.	weekly	grab sampling	All Year
Temperature, water deg. fahrenheit	00011						97 DAILY MX	F	daily	grab sampling	All Year
TSS (Total Suspended Solids)	00530					30 MO AVG	50 DAILY MX	mg/l	weekly	grab sampling	All Year

SUBMITTAL/ACTION REQUIREMENTS

S-1 LAC 33:IX.2701.L.4 Submit Monthly Discharge Monitoring Report (DMR) : Due monthly, by the 15th of the month. Electronically submit (unless DEQ gives written authorization to submit monitoring results in an alternative format), in accordance with LAC 33:I.2101.A & B no later than no later than the 15th day of the month following each reporting period.

NARRATIVE REQUIREMENTS

N-1 LAC 33:IX.2701.L.4 Discharge Monitoring Report
Prepare and submit DMRs for each outfall. If you have a No Discharge Event at any of the monitoring outfall(s) during the reporting period, use a No Data Discharge Indicator (NODI) Code of "C" for electronic DMRs or mark an "X" in the No Discharge box located in the upper right corner of the paper DMR. If not submitting electronically, submit duplicate sets of DMRs (one set of originals and one set of copies) signed and certified as required by LAC 33:IX.2503.B, and all other reports (one set of originals) required by this permit, to the Department of Environmental Quality, Office of Environmental Compliance, Permit Compliance Unit, Post Office Box 4312, Baton Rouge, Louisiana 70821-4312.

RLP 3 : **Outfall 003 - the continuous discharge of coal pile runoff; coal ash disposal landfill runoff; coal handling area runoff; coal ash disposal landfill combustion residual leachate; optional routing of cooling tower blowdown; cooling tower drift; miscellaneous non-process wastewaters; low volume wastewaters; bottom ash transport water; bottom ash purge water; wastewater associated with demolition activities; groundwater infiltration; & previously monitored hydrostatic test wastewater from Internal Outfall 303**

NARRATIVE REQUIREMENTS

N-2	LAC 33:IX.2701.J.4	Monitored at the point of discharge from the settling pond, prior to mixing with other waters.
N-3	LAC 33:IX.1113.B	There shall be no discharge of floating or settleable solids or visible foam in other than trace amounts, nor of free oil or other oily materials, nor of toxic materials in quantities such as to cause toxicity to aquatic organisms.
N-4	LAC 33:IX.2701	Temperature sampling is required during daily discharges when cooling tower blowdown is routed to the settling pond and discharged through Outfall 003. Discharge Monitoring Reports (DMRs) shall be submitted on a monthly basis. If none of the above conditions occur during the month, then Temperature requirements may be suspended for that month. However, a DMR must still be submitted with a notation in the comment section to indicate this is the case. When reporting DMRs electronically and monitoring is not required during the month, use a no data indicator (NODI) code of 9 for conditional/not required. Further explanation can be provided in the notes section of the DMR.
N-5	LAC 33:IX.2701	Low volume wastewaters include, but are not limited to, plant drains; cooling tower basin cleaning wastewater; seal water; boiler and steam condensates, including steam traps; boiler blowdown; boiler drains and turbine drains; laboratory and sampling stream drains; turbine condenser water box drains; and maintenance wastewater.
N-6	LAC 33:IX.2701	Miscellaneous non-process wastewaters include, but are not limited to, firewater system water including testing and firefighting activities (without foam); emergency eye wash and shower stations testing and use; line flushing (potable water, including disinfection, or other non-process service lines); routine pavement, pad, building, and equipment washdown waters (without soaps and detergents); uncontaminated condensate from air conditioners, coolers, and other compressors and atmospheric condensate generated on the outside of storage tanks and equipment; drainage from the irrigation of vegetation and landscaping; uncontaminated groundwater, including pressure relief water from the groundwater supply wells or purged uncontaminated groundwater from monitoring wells; groundwater well maintenance wastewater; freeze protection water; vehicle rinsewater (no soaps and detergents); dust suppression water; noncontaminated water removed from electrical vaults; water from hydroblast excavation activities (hydro-tunneling in non-contaminated soil using non-contaminated water sources); and de minimis leaks from the potable water, cooling water, utility water, or firewater service distribution system network pipelines.
N-7	LAC 33:IX.2701	Wastewater associated with demolition activities includes, but is not limited to, dust suppression water; and equipment washwater (no soaps or detergents) and rainwater from decommissioned and cleaned units.
N-8	LAC 33:IX.2701	Except for those discharges authorized below (bottom ash purge water), there shall be no discharge of pollutants in bottom ash transport water for wastewater generated on and after the effluent limitations guidelines (ELG) compliance date of December 31, 2025 (40 CFR 423.13(k)(1)(i)). This requirement only applies to bottom ash transport water generated on or after December 31, 2025. See Other Conditions, Paragraphs J, S, and T.

RLP 3 : **Outfall 003 - the continuous discharge of coal pile runoff; coal ash disposal landfill runoff; coal handling area runoff; coal ash disposal landfill combustion residual leachate; optional routing of cooling tower blowdown; cooling tower drift; miscellaneous non-process wastewaters; low volume wastewaters; bottom ash transport water; bottom ash purge water; wastewater associated with demolition activities; groundwater infiltration; & previously monitored hydrostatic test wastewater from Internal Outfall 303**

NARRATIVE REQUIREMENTS

N-9	LAC 33:IX.2701	On and after December 31, 2025, the discharge of pollutants in bottom ash transport water (bottom ash purge water) from a properly installed, operated, and maintained bottom ash system is authorized under the following conditions listed in 40 CFR 423.13(k)(2)(i)(A): To maintain system water balance when precipitation-related inflows are generated from storm events exceeding a 10-year storm event of 24-hour or longer duration (e.g., 30-day storm event) and cannot be managed by installed spares, redundancies, maintenance tanks, and other secondary bottom ash equipment; or To maintain system water balance when regular inflows from wastestreams other than bottom ash transport water exceed the ability of the bottom ash system to accept recycled water and segregating these other wastestreams is not feasible; or To maintain system water chemistry where installed equipment at the facility is unable to manage pH, corrosive substances, substances or conditions causing scaling, or fine particulates to below levels which impact system operation or maintenance; or To conduct maintenance not otherwise described above and not exempted from the definition of transport water in 40 CFR 423.13 (p), and when water volumes cannot be managed by installed spares, redundancies, maintenance tanks, and other secondary bottom ash system equipment. The total volume that may be discharged for the above activities shall be reduced or eliminated to the extent achievable using control measures (including best management practices) that are technologically available and economically achievable in light of best industry practice.
N-10	LAC 33:IX.2701	Flow limitation comments (bottom ash purge water) - In no event shall the total volume of the discharge to the settling pond exceed a 30-day rolling average of ten percent of the primary active wetted bottom ash system volume. The volume of daily discharges used to calculate the 30-day rolling average shall be calculated using measurements from flow monitors or pump logs. Based on a calculated bottom ash transport system volume of 711,059 gallons, the 30-day rolling average discharge shall not exceed 0.071 MGD. This requirement applies on and after December 31, 2025. The first day for which flow measurements must be taken to calculate the 30-day rolling average is also December 31, 2025. Report a no data indicator (NODI) code of 9 for conditional/not required on the DMR, for parameters that are not required to be sampled during the monitoring period. The permittee shall submit an initial certification statement in accordance with 40 CFR 423.19(c) by December 31, 2025. LDEQ reserves the right to reopen and/or modify the permit based on this information. See Other Conditions, Paragraph T.
N-11	LAC 33:IX.2701	Bottom Ash Purge Water: The permittee shall provide the following information with the monthly DMR for each discharge of bottom ash purge water during the monitoring period: (1) the date(s) for the purge water discharge; (2) the total volume of water discharged during each purge; and (3) the reason for the purge.

RLP 3 : **Outfall 003 - the continuous discharge of coal pile runoff; coal ash disposal landfill runoff; coal handling area runoff; coal ash disposal landfill combustion residual leachate; optional routing of cooling tower blowdown; cooling tower drift; miscellaneous non-process wastewaters; low volume wastewaters; bottom ash transport water; bottom ash purge water; wastewater associated with demolition activities; groundwater infiltration; & previously monitored hydrostatic test wastewater from Internal Outfall 303**

NARRATIVE REQUIREMENTS

N-12	LAC 33:IX.2701	Coal ash disposal landfill (CADL) combustion residual leachate may be used for dust control in the CADL, subject to any necessary approvals under the associated solid waste permit. Additionally, combustion residual leachate may be used in the bottom ash handling system as makeup water, when needed. It is understood that discharges from the CADL and from the bottom ash handling system are routed to the settling pond for subsequent discharge through final Outfall 003. Combustion residual leachate discharges are subject to effluent limitations guidelines (ELGs) in the steam electric point source category. Therefore, a reopener clause has been included in the renewal permit to implement final EPA guidelines. The permit may be modified to include more stringent limitations, as applicable, and an internal outfall may be required.
N-13	LAC 33:IX.2701	Bottom ash transport water generated before December 31, 2025 may be discharged through Outfall 003.
N-14	LAC 33:IX.2701	See Other Conditions, Paragraph E for additional requirements.

RLP 6 : Internal Outfall 303 - the intermittent discharge of hydrostatic test wastewater from hydrostatic tests conducted on various pipes, tanks, vessels, and/or equipment

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Such discharges shall be limited and monitored by the permittee as specified below:

Parameter	Storet	Discharge Limitations							Monitoring Requirements		
		Quantity/ Loading Average	Quantity/ Loading Maximum	Quantity/ Loading Units	Quality/ Conc. Minimum	Quality/ Conc. Average	Quality/ Conc. Maximum	Quality/ Conc. Units	Frequency	Sample Type	Which Months
Flow, in conduit or through treatment plant	50050	Report MO AVG	Report DAILY MX	million gallons/day					1/event	estimate	All Year
Benzene	34030						50 DAILY MX	ug/l	1/event	grab sampling	All Year
BTEX	49491						250 DAILY MX	ug/l	1/event	grab sampling	All Year
Carbon, total organic	00680						50 DAILY MX	mg/l	1/event	grab sampling	All Year
Lead, total (as Pb)	01051						50 DAILY MX	ug/l	1/event	grab sampling	All Year
Oil and grease	00556						15 DAILY MX	mg/l	1/event	grab sampling	All Year
pH	00400				6.0 INST MIN		9.0 INST MAX	s.u.	1/event	grab sampling	All Year
TSS (Total Suspended Solids)	00530						90 DAILY MX	mg/l	1/event	grab sampling	All Year
TSS (Total Suspended Solids) - NET	00530						90 DAILY MX	mg/l	1/event	calculations	All Year

SUBMITTAL/ACTION REQUIREMENTS

S-1 LAC 33:IX.2701.L.4 Submit Quarterly Discharge Monitoring Report (DMR): Due quarterly, by the 15th of January, April, July, and October. Electronically submit (unless DEQ gives written authorization to submit monitoring results in an alternative format), in accordance with LAC 33:I.2101.A and B no later than April 15th for monitoring in the months of January, February and March, no later than July 15th for monitoring in the months of April, May, and June, no later than October 15th for monitoring in the months of July, August, and September, and no later than January 15th for monitoring in the months of October, November, and December.

RLP 6 : Internal Outfall 303 - the intermittent discharge of hydrostatic test wastewater from hydrostatic tests conducted on various pipes, tanks, vessels, and/or equipment

NARRATIVE REQUIREMENTS

N-1	LAC 33:IX.2701.L.4	Discharge Monitoring Report Prepare and submit DMRs for each outfall. For facilities with individually permitted hydrostatic test water discharges, summarize the monitoring results for all hydrostatic tests performed during each quarter and report electronically on a Discharge Monitoring Report (DMR) form, or approved substitute, and submit to the Office of Environmental Compliance on a quarterly basis. If there is a No Discharge Event at any of the monitoring outfall(s) during the reporting period, use a No Data Discharge Indicator (NODI) Code of "C" for electronic DMRs or mark an "X" in the No Discharge box located in the upper right corner of the paper DMR. If not submitting electronically, submit duplicate sets of DMRs (one set of originals and one set of copies) signed and certified as required by LAC 33:IX.2503.B, and all other reports (one set of originals) required by this permit, to the Department of Environmental Quality, Office of Environmental Compliance, Permit Compliance Unit, Post Office Box 4312, Baton Rouge, Louisiana 70821-4312.
N-2	LAC 33:IX.2701.J.4	Monitored at the point of discharge from the hydrostatic testing activity, prior to mixing with other waters.
N-3	LAC 33:IX.2701.J	Flow, TSS, Oil and Grease, and pH: Measure on discharges from all new and existing pipelines, flowlines, vessels, or tanks. Total Organic Carbon (TOC): Measure on discharges from existing pipelines, flowlines, vessels, or tanks which have previously been in service, i.e., those which are not new. Benzene, Total BTEX, and Total Lead: Measure on discharges from existing pipelines, flowlines, vessels, or tanks which have been used for the storage or transportation of liquid or gaseous petroleum hydrocarbons.
N-4	LAC 33:IX.2701.J	BTEX: Measure BTEX as the sum of benzene, toluene, ethylbenzene, and total xylene (including ortho-, meta-, and para-xylene) as quantified using the methods prescribed by the latest approved 40 CFR 136, Tables A - G.
N-5	LAC 33:IX.2701.J	TSS: Report either a TSS effluent value or a TSS net value on the Discharge Monitoring Report (DMR). If a TSS effluent value is reported, then a no data indicator (NODI) code of 9 for conditional/not required should be used for the TSS net value. If a TSS net value is reported, then a no data indicator (NODI) code of 9 for conditional/not required should be used for the TSS effluent value. If the effluent is being returned to the same water source from which the intake water was obtained, a TSS net value may be calculated. In these cases, concurrent sampling of the influent and the effluent is required, and the net value shall not exceed 90 mg/L. If TSS net value is calculated, enter the effluent and intake values in the comment section of the DMR.
N-6	LAC 33:IX.2701.A	For all parameters: Report the highest result from an individual hydrostatic test.
N-7	LAC 33:IX.2701.A	Flow, in conduit or through treatment plant: Report the month with the highest monthly average flow.
N-8	LAC 33:IX.2701.A	Report a no data indicator (NODI) code of 9 for conditional/not required on the DMR, for parameters that are not required to be sampled during the monitoring period.

RLP 7 : Outfall 004 - the intermittent discharge of stormwater runoff from the area east of the Turbine Building, Fan Alley, and Bowl Mill areas; de minimis amounts of miscellaneous non-process wastewaters; wastewater associated with demolition activities; and previously monitored hydrostatic wastewater from Internal Outfall 303

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Such discharges shall be limited and monitored by the permittee as specified below:

Parameter	Storet	Discharge Limitations							Monitoring Requirements		
		Quantity/ Loading Average	Quantity/ Loading Maximum	Quantity/ Loading Units	Quality/ Conc. Minimum	Quality/ Conc. Average	Quality/ Conc. Maximum	Quality/ Conc. Units	Frequency	Sample Type	Which Months
Flow, in conduit or through treatment plant	50050	Report MO AVG	Report DAILY MX	million gallons/day					quarterly	estimate	All Year
Carbon, total organic	00680						50 DAILY MX	mg/l	quarterly	grab sampling	All Year
Oil and grease	00556						15 DAILY MX	mg/l	quarterly	grab sampling	All Year
pH	00400				6.0 INST MIN		9.0 INST MAX	s.u.	quarterly	grab sampling	All Year

SUBMITTAL/ACTION REQUIREMENTS

S-1 LAC 33:IX.2701.L.4 Submit Quarterly Discharge Monitoring Report (DMR): Due quarterly, by the 15th of January, April, July, and October. Electronically submit (unless DEQ gives written authorization to submit monitoring results in an alternative format), in accordance with LAC 33:I.2101.A and B no later than April 15th for monitoring in the months of January, February and March, no later than July 15th for monitoring in the months of April, May, and June, no later than October 15th for monitoring in the months of July, August, and September, and no later than January 15th for monitoring in the months of October, November, and December.

NARRATIVE REQUIREMENTS

N-1 LAC 33:IX.2701.L.4 Discharge Monitoring Report
Prepare and submit DMRs for each outfall. If you have a No Discharge Event at any of the monitoring outfall(s) during the reporting period, use a No Data Discharge Indicator (NODI) Code of "C" for electronic DMRs or mark an "X" in the No Discharge box located in the upper right corner of the paper DMR. If not submitting electronically, submit duplicate sets of DMRs (one set of originals and one set of copies) signed and certified as required by LAC 33:IX.2503.B, and all other reports (one set of originals) required by this permit, to the Department of Environmental Quality, Office of Environmental Compliance, Permit Compliance Unit, Post Office Box 4312, Baton Rouge, Louisiana 70821-4312.

N-2 LAC 33:IX.1113.B There shall be no discharge of floating or settleable solids or visible foam in other than trace amounts, nor of free oil or other oily materials, nor of toxic materials in quantities such as to cause toxicity to aquatic organisms.

RLP 7 : Outfall 004 - the intermittent discharge of stormwater runoff from the area east of the Turbine Building, Fan Alley, and Bowl Mill areas; de minimis amounts of miscellaneous non-process wastewaters; wastewater associated with demolition activities; and previously monitored hydrostatic wastewater from internal Outfall 303

NARRATIVE REQUIREMENTS

N-3	LAC 33:IX.2701.J.4	Monitored at the point of discharge from the pipe located on the eastern edge of Unit 6, prior to mixing with other waters.
N-4	LAC 33:IX.2701	See Other Conditions, Paragraph E for additional requirements.
N-5	LAC 33:IX.2701	Miscellaneous non-process wastewaters include, but are not limited to, firewater system water including testing and firefighting activities (without foam); emergency eye wash and shower stations testing and use; line flushing (potable water, including disinfection, or other non-process service lines); routine pavement, pad, building, and equipment washdown waters (without soaps and detergents); uncontaminated condensate from air conditioners, coolers, and other compressors and atmospheric condensate generated on the outside of storage tanks and equipment; drainage from the irrigation of vegetation and landscaping; uncontaminated groundwater, including pressure relief water from the groundwater supply wells or purged uncontaminated groundwater from monitoring wells; groundwater well maintenance wastewater; freeze protection water; vehicle rinsewater (no soaps and detergents); dust suppression water; noncontaminated water removed from electrical vaults; water from hydroblast excavation activities (hydro-tunneling in non-contaminated soil using non-contaminated water sources); and de minimis leaks from the potable water, cooling water, utility water, or firewater service distribution system network pipelines. Wastewater associated with demolition activities includes, but is not limited to, dust suppression water; and equipment washwater (no soaps or detergents) and rainwater from decommissioned and cleaned units.

RLP 48 : Outfall 005 - the intermittent discharge of overflow stormwater from the settling pond that normally discharges through Outfall 003 and previously monitored hydrostatic wastewater from Internal Outfall 303

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Such discharges shall be limited and monitored by the permittee as specified below:

Parameter	Storet	Discharge Limitations							Monitoring Requirements		
		Quantity/ Loading Average	Quantity/ Loading Maximum	Quantity/ Loading Units	Quality/ Conc. Minimum	Quality/ Conc. Average	Quality/ Conc. Maximum	Quality/ Conc. Units	Frequency	Sample Type	Which Months
Flow, in conduit or through treatment plant	50050	Report MO AVG	Report DAILY MX	million g allons/day					monthly	estimate	All Year
Carbon, total organic	00680						50 DAILY MX	mg/l	monthly	grab sampling	All Year
Oil and grease	00556					15 MO AVG	20 DAILY MX	mg/l	monthly	grab sampling	All Year
pH	00400				6.0 INST MIN		9.0 INST MAX	s.u.	weekly	grab sampling	All Year
TSS (Total Suspended Solids)	00530					30 MO AVG	50 DAILY MX	mg/l	weekly	grab sampling	All Year

SUBMITTAL/ACTION REQUIREMENTS

S-1 LAC 33:IX.2701.L.4 Submit Monthly Discharge Monitoring Report (DMR) : Due monthly, by the 15th of the month. Electronically submit (unless DEQ gives written authorization to submit monitoring results in an alternative format), in accordance with LAC 33:I.2101.A & B no later than no later than the 15th day of the month following each reporting period.

NARRATIVE REQUIREMENTS

N-1 LAC 33:IX.2701.L.4 Discharge Monitoring Report
Prepare and submit DMRs for each outfall. If you have a No Discharge Event at any of the monitoring outfall(s) during the reporting period, use a No Data Discharge Indicator (NODI) Code of "C" for electronic DMRs or mark an "X" in the No Discharge box located in the upper right corner of the paper DMR. If not submitting electronically, submit duplicate sets of DMRs (one set of originals and one set of copies) signed and certified as required by LAC 33:IX.2503.B, and all other reports (one set of originals) required by this permit, to the Department of Environmental Quality, Office of Environmental Compliance, Permit Compliance Unit, Post Office Box 4312, Baton Rouge, Louisiana 70821-4312.

N-2 LAC 33:IX.2701.J.4 Monitored at the point of discharge from the overflow weir on the settling pond, prior to mixing with other waters.

RLP 48 : Outfall 005 - the intermittent discharge of overflow stormwater from the settling pond that normally discharges through Outfall 003 and previously monitored hydrostatic wastewater from Internal Outfall 303

NARRATIVE REQUIREMENTS

N-3	LAC 33:IX.1113.B	There shall be no discharge of floating or settleable solids or visible foam in other than trace amounts, nor of free oil or other oily materials, nor of toxic materials in quantities such as to cause toxicity to aquatic organisms.

FAC 1 : LA0059030 - Water Agency Interest

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

N/A

SUBMITTAL/ACTION REQUIREMENTS

N/A

NARRATIVE REQUIREMENTS

N-1	LAC 33:IX.2707.G	Report violations of daily maximum limitations for the pollutants listed in Other Conditions orally to the Office of Environmental Compliance within 24 hours from the time you became aware of the violation followed by a written report in five days, under the provisions of Standard Conditions Section D.6.e. (3) of this permit.
N-2	LAC 33:IX.2701	Achieve compliance with the effluent limitations and monitoring requirements specified for discharges in accordance with the following schedule: See Other Conditions, Paragraph J.
N-3	LAC 33:IX.2701	If the flow measurement sample type indicated is specified as "estimate," flow measurements shall not be subject to the accuracy provisions established in this permit. The daily flow value may be estimated using best engineering judgement.
N-4	LAC 33:IX.2701	Obtain prior approval from the Office of Environmental Services for any new proposed discharges at the site.
N-5	LAC 33:IX.2701.J.2	Record all monitoring results per Standard Conditions Section C.4.
N-6	LAC 33:IX.2701.A	SWP3: Prepare, implement, and maintain a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit for first time permit issuance. Review and update, if necessary, a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit for renewal permit issuance. The SWP3 shall apply to all stormwater discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheetflow.
N-7	LAC 33:IX.2701.A	SWP3: Any runoff leaving developed areas of the facility, other than through the permitted outfall(s), exceeding 50 mg/l Carbon, total organic (Storet 00680), 15 mg/l Oil and grease (Storet 00556), or having a pH (Storet 00400) less than 6.0 SU or greater than 9.0 SU shall be a violation of this permit. Any discharge in excess of these limitations, which is attributable to offsite contamination shall not be considered a violation of this permit.

FAC 1 : LA0059030 - Water Agency Interest

NARRATIVE REQUIREMENTS

N-8	LAC 33:IX.2701.A	SWP3: Include the following conditions in the SWP3 for the facility: A) an annual inspection of the facility site to identify areas contributing to the storm water discharge from developed areas of the facility and evaluate whether measures to reduce pollutant loadings identified in the SWP3 are adequate and have been properly implemented in accordance with the terms of the permit or whether additional control measures are needed; B) a prediction of the direction, rate of flow, and total quantity of pollutants which could be discharged from the facility as a result of potential equipment failure (e.g. tank overflow or leakage), natural conditions (e.g. precipitation), or other circumstances which result in significant amounts of pollutants reaching surface waters; and C) an annual report of the inspection of the facility site which should contain, at a minimum, the date and time of inspection, the name of the inspector(s), conditions found, identification of any incidents of noncompliance, and changes to be made to the SWP3; and D) develop a site map which includes all areas where stormwater may contact potential pollutants or substances which can cause pollution. Any location where reportable quantity leaks or spills have previously occurred are to be documented in the SWP3. The SWP3 shall contain a description of the potential pollutant sources, including, the type and quantity of material present and what action has been taken to assure stormwater precipitation will not directly contact the substances and result in contaminated runoff E) sign the summary report and the following certification in accordance with LAC 33:IX.2503. Attach the summary report to the SWP3 and provide to DEQ upon request: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualitifed personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." F) make available to DEQ, upon request, a copy of the SWP3 and any supporting documentation.
N-9	LAC 33:IX.2701.A	SWP3: If applicable, utilize all reasonable methods to minimize any adverse impact on the drainage system including but not limited to: A) maintaining adequate roads and driveway surfaces; B) removing debris and accumulated solids from the drainage system; and C) cleaning up immediately any spill by sweeping, absorbent pads, or other appropriate methods.
N-10	LAC 33:IX.2701.A	SWP3: If applicable, clean up and dispose of all spilled product and other spilled wastes immediately according to all applicable regulations, Spill Prevention and Control (SPC) plans or Spill Prevention Control and Countermeasures (SPCC) plans.
N-11	LAC 33:IX.2701.A	SWP3: If applicable, use of detergents, emulsifiers, or dispersants to clean up spilled product is prohibited except where necessary to comply with state or federal safety regulations (i.e., requirement for non-slippery work surface) except where the cleanup practice does not result in a discharge and does not leave residues exposed to future storm events. In all such cases, perform initial cleanup by physical removal and minimize chemical usage.
N-12	LAC 33:IX.2701.A	SWP3: If applicable, maintain all equipment, parts, dumpsters, trash bins, petroleum products, chemical solvents, detergents, or other material exposed to storm water in a manner which prevents contamination of storm water by pollutants.

FAC 1 : LA0059030 - Water Agency Interest

NARRATIVE REQUIREMENTS

N-13	LAC 33:IX.2701.A	SWP3: If applicable, recycle or contain for proper disposal all waste fuel, lubricants, coolants, solvents, or other fluids used in the repair or maintenance of vehicles or equipment. Clean up spills of these materials by dry means whenever possible.
N-14	LAC 33:IX.2701.A	SWP3: If applicable, ensure that all storage tank installations with a capacity greater than 660 gallons for an individual container, or 1,320 gallons for two or more containers in aggregate within a common storage area, are constructed so that a secondary means of containment is provided for the entire contents of the largest tank plus sufficient freeboard to allow for precipitation. Diked areas should be sufficiently impervious to contain spills.
N-15	LAC 33:IX.2701.A	SWP3: If applicable, maintain all diked areas surrounding storage tanks or storm water collection basins free of residual oil or other contaminants so as to prevent the accidental discharge of these materials in the event of flooding, dike failure, or improper draining of the diked area.
N-16	LAC 33:IX.2701.A	SWP3: If applicable, equip all drains from diked areas with valves kept in the closed condition except during periods of supervised discharge.
N-17	LAC 33:IX.2701.A	SWP3: If applicable, inspect and maintain all check valves, tanks, drains, or other potential sources of pollutant releases on a regular basis to assure their proper operation and to prevent the discharge of pollutants.
N-18	LAC 33:IX.2701.A	SWP3: If applicable, assure compliance with all applicable regulations promulgated under the Louisiana Solid Waste and Resource Recovery Law and the Hazardous Waste Management Law (La. R.S. 30:2151, etc.). Reference management practices required under above regulations in the SWP3.
N-19	LAC 33:IX.2701.A	SWP3: If applicable, amend the SWP3 whenever there is a change in the facility or change in the operation of the facility which materially increases the potential for the ancillary activities to result in a discharge of significant amounts of pollutants.
N-20	LAC 33:IX.2701.A	SWP3: If applicable, if the SWP3 proves to be ineffective in achieving the general objectives of preventing the release of significant amounts of pollutants to water of the state, then the specific objectives and requirements of the SWP3 shall be subject to modification to incorporate revised SWP3 requirements.
N-21	LAC 33:IX.2701.A	SWP3: Facility Specific SWP3 Conditions: None.

Other Conditions:

In addition to the standard conditions required in all permits and listed in STANDARD CONDITIONS FOR LPDES PERMITS, the Office has established the following additional conditions in accordance with the Louisiana Water Quality Regulations.

A. This permit does not in any way authorize the permittee to discharge a pollutant not listed or quantified in the application or limited or monitored for in the permit.

B. Authorization to discharge pursuant to the conditions of this permit does not relieve the permittee of any liability for damages to state waters or private property. For discharges to private land, this permit does not relieve the permittee from obtaining proper approval from the landowner for appropriate easements and rights of way.

C. For definitions of monitoring and sampling terminology see STANDARD CONDITIONS FOR LPDES PERMITS, Section F.

D. EPA document 833-B-09-002 (Storm Water Management for Industrial Activities) may be used as a guidance for the Stormwater Pollution Prevention Plan and may be obtained at the following website:

https://www.epa.gov/sites/production/files/2015-11/documents/swppp_guide_industrial_2015.pdf

E. PERMIT REOPENER CLAUSE

A review of the analytical data provided by the facility for Outfalls 003 and 004 showed results that exceeded the minimum quantification level (MQL) for Total Aluminum (Outfalls 003 and 004) and Total Zinc (Outfall 004). An investigation of possible sources for these pollutants shall be conducted by the facility and submitted no later than two years from the effective date of the permit. The information gathered during the investigation may be used to reopen the existing permit and/or develop permit conditions/requirements for future permits (if needed).

This permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(C) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act or more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDLs, if the effluent standard, limitations, water quality studies or TMDLs so issued or approved:

1. Contain different conditions or is otherwise more stringent than any effluent limitation in the permit; or

Other Conditions continued:

2. Control any pollutant not limited in the permit; or

3. Require reassessment due to change in 303(d) status of waterbody; or

4. Incorporate the results of any total maximum daily load allocation, which may be approved for the receiving water body.

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

F. 24-HOUR ORAL REPORTING: DAILY MAXIMUM LIMITATION VIOLATIONS

Under the provisions of Standard Conditions D.6.e.(3) of this permit, violations of daily maximum limitations for the following pollutants shall be reported orally to the Office of Environmental Compliance within 24 hours from the time the permittee became aware of the violation followed by a written report in five days.

Pollutant(s):

Total Lead
Benzene
Total BTEX
Total Chromium
Total Zinc

G. COMPOSITE SAMPLING

Unless otherwise specified in this permit, the term "24-hour composite sample" means a sample consisting of a minimum of four (4) aliquots of effluent collected at regular intervals over a normal 24-hour operating day and combined in proportion to flow or a sample continuously collected in proportion to flow over a normal 24-hour operating period.

H. 40 CFR PART 136 (See LAC 33:IX.4901) ANALYTICAL REQUIREMENTS

Unless otherwise specified in this permit, monitoring shall be conducted according to analytical, apparatus and materials, sample collection, preservation, handling, etc.,

Other Conditions continued:

procedures listed at 40 CFR Part 136, and in particular, Appendices A, B, and C (See LAC 33:IX.4901).

I. MINIMUM QUANTIFICATION LEVEL (MQL)

NONCONVENTIONAL	MQL (µg/L)
Phenolics, Total Recoverable (4AAP)	5
Chlorine (Total Residual)	33
3-Chlorophenol	10
4-Chlorophenol	10
2,3-Dichlorophenol	10
2,5-Dichlorophenol	10
2,6-Dichlorophenol	10
3,4-Dichlorophenol	10
2,4-D	10
2,4,5-TP (Silvex)	4

METALS AND CYANIDE	MQL (µg/L)
Aluminum (Total)	2.5
Antimony (Total)	60
Arsenic (Total)	5
Beryllium (Total)	0.5
Cadmium (Total)	1
Chromium (Total)	10
Chromium (3+)	10
Chromium (6+)	10
Copper (Total)	3
Lead (Total)	2
Mercury (Total)	0.005
Molybdenum (Total)	30
Nickel (Total) Freshwater	5
Nickel (Total) Marine	5
Selenium (Total)	5
Silver (Total)	0.5
Thallium (Total)	0.5
Zinc (Total)	20
Cyanide (Total)	10

DIOXIN	MQL (µg/L)
2,3,7,8-TCDD	0.00001

Other Conditions continued:

VOLATILE COMPOUNDS	MQL (µg/L)
Acrolein	50
Acrylonitrile	20
Benzene	10
Bromoform	10
Carbon Tetrachloride	2
Chlorobenzene	10
Chlorodibromomethane	10
Chloroethane	50
2-Chloroethylvinylether	10
Chloroform	10
1,2-Dichlorobenzene	10
1,3-Dichlorobenzene	10
1,4-Dichlorobenzene	10
Dichlorobromomethane	10
1,1-Dichloroethane	10
1,2-Dichloroethane	10
1,1-Dichloroethylene	10
1,2-Dichloropropane	10
1,3-Dichloropropene [1,3-Dichloropropylene]	10
Ethylbenzene	10
Methyl Bromide [Bromomethane]	50
Methyl Chloride [Chloromethane]	50
Methylene Chloride	20
1,1,2,2-Tetrachloroethane	10
Tetrachloroethylene	10
Toluene	10
1,2-trans-Dichloroethylene	10
1,1,1-Trichloroethane	10
1,1,2-Trichloroethane	10
Trichloroethylene	10
Vinyl Chloride	10

ACID COMPOUNDS	MQL (µg/L)
2-Chlorophenol	10
2,4-Dichlorophenol	10
2,4-Dimethylphenol	10
4,6-Dinitro-o-Cresol [2-Methyl-4,6-Dinitrophenol]	50
2,4-Dinitrophenol	50
2-Nitrophenol	20
4-Nitrophenol	50

Other Conditions continued:

p-Chloro-m-Cresol [4-Chloro-3-Methylphenol]	10
Pentachlorophenol	5
Phenol	10
2,4,6-Trichlorophenol	10

BASE/NEUTRAL COMPOUNDS	MQL (µg/L)
Acenaphthene	10
Acenaphthylene	10
Anthracene	10
Benzidine	50
Benzo(a)anthracene	5
Benzo(a)pyrene	5
Benzo (b) Fluoranthene [3,4-Benzofluoranthene]	10
Benzo(ghi)perylene	20
Benzo(k)fluoranthene	5
Bis(2-chloroethoxy) Methane	10
Bis(2-chloroethyl) Ether	10
Bis(2-chloroisopropyl) Ether	10
Bis(2-ethylhexyl) Phthalate	10
4-Bromophenyl Phenyl Ether	10
Butylbenzyl Phthalate	10
2-Chloronapthalene	10
4-Chlorophenyl Phenyl Ether	10
Chrysene	5
Dibenzo(a,h)anthracene	5
3,3'-Dichlorobenzidine	5
Diethyl Phthalate	10
Dimethyl Phthalate	10
Di-n-Butyl Phthalate	10
2,4-Dinitrotoluene	10
2,6-Dinitrotoluene	10
Di-n-octyl Phthalate	10
1,2-Diphenylhydrazine	20
Fluoranthene	10
Fluorene	10
Hexachlorobenzene	5
Hexachlorobutadiene	10
Hexachlorocyclopentadiene	10
Hexachloroethane	20
Indeno(1,2,3-cd)pyrene [2,3-o-Phenylene Pyrene]	5
Isophorone	10
Naphthalene	10

Other Conditions continued:

Nitrobenzene	10
n-Nitrosodimethylamine	50
n-Nitrosodi-n-Propylamine	20
n-Nitrosodiphenylamine	20
Phenanthrene	10
Pyrene	10
1,2,4-Trichlorobenzene	10

PESTICIDES	MQL (µg/L)
Aldrin	0.01
Alpha-BHC	0.05
Beta-BHC	0.05
Gamma-BHC [Lindane]	0.05
Delta-BHC	0.05
Chlordane	0.2
4,4'-DDT	0.02
4,4'-DDE [p,p-DDX]	0.1
4,4'-DDD [p,p-TDE]	0.1
Dieldrin	0.02
Alpha-Endosulfan	0.01
Beta-Endosulfan	0.02
Endosulfan Sulfate	0.1
Endrin	0.02
Endrin Aldehyde	0.1
Heptachlor	0.01
Heptachlor Epoxide [BHC-Hexachlorocyclohexane]	0.01
PCB-1242	0.2
PCB-1254	0.2
PCB-1221	0.2
PCB-1232	0.2
PCB-1248	0.2
PCB-1260	0.2
PCB-1016	0.2
Toxaphene	0.3

The permittee may develop an effluent specific method detection limit (MDL) in accordance with Appendix B to 40 CFR Part 136 (See LAC 33:IX.4901). For any pollutant for which the permittee determines an effluent specific MDL, the permittee shall send to this Office a report containing QA/QC documentation, analytical results, and calculations necessary to demonstrate that the effluent specific MDL was correctly calculated. An effluent specific minimum quantification level (MQL) shall be determined in accordance with the following calculation:

Other Conditions continued:

$$MQL = 3.3 \times MDL$$

Upon written approval by this Office, the effluent specific MQL may be utilized by the permittee for all future Discharge Monitoring Report (DMR) calculations and reporting requirements.

All effluent testing shall be conducted utilizing EPA-approved methods from laboratories accredited to conduct the required analyses.

For Limited Parameters:

In accordance with 40 CFR 122.44(i)(1)(iv), the permittee is required to use the most sufficiently sensitive method necessary to prove compliance with the effluent limitations. For a given parameter, if the MQL prescribed by the permit is less than the permit limitation, any EPA-approved method with a method detection level (MDL) which is equal to or less than this MQL may be utilized. In this scenario, if an individual analytical result is below the MQL, the permittee may report "0" on a discharge monitoring report (DMR).

When the MQL prescribed by the permit is greater than the permit limitation, the permittee shall use a sufficiently sensitive EPA-approved method capable of yielding a quantifiable result which proves compliance with the limitation. If a sufficiently sensitive method is available with an MDL equal to or less than the permit limit, and the individual analytical result is less than the MDL, the permittee may report "0" on a DMR. However, some instances may occur when there is no sufficiently sensitive EPA-approved method which will yield a quantifiable result equal to or less than the permit limitation. In these cases, the permittee must submit supporting documentation indicating that they used the most sensitive method available. In this scenario, if an individual analytical result is not detectable at the MDL of the method used, the permittee must report "non-detect" on the DMR. Please note than ANY quantifiable result above the permit limitation shall be reported as an excursion.

For Report Only Parameters:

In accordance with 40 CFR 122.44(i)(1)(iv)(2), the permittee is required to use the most sufficiently sensitive method to quantify the presence of a pollutant. Therefore, the permittee must select a method with an MDL that is at or below the water quality criterion (if applicable) or the MQL, whichever is less. Please be advised that should a sufficiently sensitive method not be available, the permittee must submit supporting documentation stating this.

For reporting purposes, if the most sensitive method is greater than the more stringent of

Other Conditions continued:

the MQL or the water quality criteria, and the analytical result is less than the MDL, "non-detect" shall be reported on the DMR. If the method is less than or equal to the more stringent of the MQL or water quality criteria and the analytical result is less than that value, zero (0) shall be reported on the DMR.

J. The permittee shall achieve compliance with the effluent limitations and monitoring requirements specified for discharges in accordance with the following schedule:

Compliance Dates for the Revised Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category	
ACTIVITY	COMPLIANCE DATE
Submit progress report addressing progress toward attaining compliance with the as soon as possible (ASAP) ELG compliance date to discontinue discharges of bottom ash transport water. See Other Conditions, Paragraph S.	Annually, beginning one (1) year after the effective date of the permit until the ELG compliance date or compliance has been achieved, whichever comes first.
Achieve final compliance with ELGs See Other Conditions, Paragraph S.	December 31, 2025
The permittee shall submit an initial certification statement in accordance with 40 CFR 423.19(c). See Other Conditions Paragraph T.	December 31, 2025
Should the permittee decide to change compliance options in the future, a permit modification shall be required.	All applicable information must be submitted with the modification request. Additionally, compliance must be achieved by the final compliance date for the chosen pathway. See Other Conditions, Paragraph S.

Other Conditions continued:

OTHER SCHEDULES OF COMPLIANCE	
REOPENER CLAUSE	COMPLIANCE DATE
Other Conditions, Paragraph E – Outfalls 003 and 004	A review of the analytical data provided by the facility for these outfalls showed results that exceeded the minimum quantification level (MQL) for Total Aluminum (Outfalls 003 and 004) and Total Zinc (Outfall 004). An investigation of possible sources for these pollutants shall be conducted by the facility and submitted no later than two years from the effective date of the permit. The information gathered during the investigation shall be submitted to the Office of Environmental Services, Water Permits Division and the Office of Environmental Compliance, Permit Compliance Unit.

ALL OTHER PERMIT REQUIREMENTS	
ACTIVITY	COMPLIANCE DATE
All other outfalls and permit requirements	Effective date of the permit

K. TEMPERATURE

Daily temperature discharge is defined as the flow-weighted average temperature (FWAT) and, on a daily basis, shall be monitored and recorded in accordance with the Narrative and Effluent Limitations and Monitoring Requirements in the Permit Requirements section of this permit. FWAT shall be calculated at equal time intervals not greater than two hours. The method of calculating FWAT is as follows:

$$\text{FWAT} = \frac{\text{SUMMATION (Instantaneous Flow X Instantaneous Temperature)}}{\text{SUMMATION (Instantaneous Flow)}}$$

"Daily Average Temperature" (also known as monthly average) shall be the arithmetic average of all FWATs calculated during the calendar month.

"Daily Maximum Temperature" (also known as daily maximum) shall be the highest FWAT calculated during the calendar month.

Other Conditions continued:

L. PROHIBITION OF PCB DISCHARGES

There shall be no discharge of polychlorinated biphenyls (PCBs). The minimum quantification level for PCBs is 0.2 µg/l. If any individual analytical test result for PCBs is less than the minimum quantification level, then a value of zero (0) shall be used for the Discharge Monitoring Report (DMR) calculations and reporting requirements.

M. LOW VOLUME WASTE SOURCES

The term "low volume waste sources" means, taken collectively as if from one source, wastewater from all sources except those for which specific limitations or standards are otherwise established. Low volume waste sources include, but are not limited to, the following: wastewaters from ion exchange water treatment systems, water treatment evaporator blowdown, laboratory and sampling streams, boiler blowdown, floor drains, cooling tower basin cleaning wastes, recirculating house service water systems, and wet scrubber air pollution control systems whose primary purpose is particulate removal. Sanitary wastewaters, air conditioning wastewaters, and wastewater from carbon capture or carbon sequestration systems are not included.

N. FREE AVAILABLE CHLORINE

The term "free available chlorine" means the value obtained using any of the "chlorine-free available" methods in Table IB in 40 CFR 136.3(a) where the method has the capability of measuring free available chlorine, or other methods approved by the permitting authority.

Free available chlorine may not be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available chlorine at any one time.

O. PROHIBITION OF 126 PRIORITY POLLUTANTS

There shall be no discharge of any 126 priority pollutants (40 CFR 423 Appendix A) associated with the chemicals added for cooling tower maintenance, except for Total Chromium and Total Zinc. The minimum quantification levels for the 126 priority pollutants are found in Other Conditions, Paragraph I.

P. COMBUSTION RESIDUAL LEACHATE

The term "combustion residual leachate" means leachate from landfills or surface impoundments containing combustion residuals. Leachate is composed of liquid, including any suspended or dissolved constituents in the liquid, that has percolated through

Other Conditions continued:

waste or other materials emplaced in a landfill, or that passes through the surface impoundment's containment structure (e.g., bottom, dikes, berms). Combustion residual leachate includes seepage and/or leakage from a combustion residual landfill or impoundment unit. Combustion residual leachate includes wastewater from landfills and surface impoundments located on non-adjoining property when under the operational control of the permitted facility.

Q. BOTTOM ASH

The term "bottom ash" means the ash, including boiler slag, which settles in the furnace or is dislodged from furnace walls. Economizer ash is included in this definition when it is collected with bottom ash.

R. TRANSPORT WATER

The term "transport water" means any wastewater that is used to convey fly ash, bottom ash, or economizer ash from the ash collection or storage equipment, or boiler, and has direct contact with the ash. Transport water does not include low volume, short duration discharges of wastewater from minor leaks (e.g., leaks from valve packing, pipe flanges, or piping), minor maintenance events (e.g., replacement of valves or pipe sections), flue gas desulfurization (FGD) paste equipment cleaning water, or bottom ash purge water.

S. COMPLIANCE DATES FOR THE REVISED EFFLUENT LIMITATIONS GUIDELINES (ELGs) AND STANDARDS FOR THE STEAM ELECTRIC POWER GENERATING POINT SOURCE CATEGORY

Combustion Residual Leachate:

Combustion residual leachate will discharge through Outfall 003. According to an application addendum dated July 23, 2021, Entergy requests that compliance monitoring for leachate be conducted at Outfall 003 after commingling with other wastewaters and treatment in the Settling Pond. Discharges of combustion residual leachate are currently subject to ELGs promulgated by EPA for the steam electric point source category at 40 CFR 423.12(b)(11), November 3, 2015 (see also 40 CFR 423.2(b)(3), November 19, 1982). The request to monitor combustion residual leachate at Outfall 003 has been granted because effluent limitations at Outfall 003 are adequate for this discharge. However, a reopener clause has been included in the renewal permit to implement final EPA guidelines. Therefore, the permit may be modified to include more stringent limitations, as applicable, and an internal outfall may be required.

Other Conditions continued:

Bottom Ash Transport Water:

In accordance with 40 CFR 423.13(k)(1)(i), except for those discharges authorized by 40 CFR 423.13(k)(2)(i), there shall be no discharge of pollutants in bottom ash transport water for wastewater generated on and after the effluent limitations guidelines (ELG) compliance date of December 31, 2025. This requirement only applies to bottom ash transport water generated on or after December 31, 2025.

Progress Reports

Submit annual progress reports addressing progress toward attaining compliance with the as soon as possible (ASAP) ELG compliance date to discontinue discharges of bottom ash transport water.

The permittee shall submit the annual progress report to the following address or electronically as services become available to accept these reports:

Department of Environmental Quality
Office of Environmental Compliance
P.O. Box 4312
Baton Rouge, Louisiana 70821-4312
Attn: Permit Compliance Unit

A copy of the annual progress report shall also be submitted to the following address:

Department of Environmental Quality
Office of Environmental Services
Water Permits Division
P.O. Box 4313
Baton Rouge, Louisiana 70821-4313
Attn: Industrial Permits Section

If the permittee decides to change compliance options, a permit modification shall be required. All applicable information must be submitted with the modification request. Additionally, compliance must be achieved by the final compliance date for the chosen pathway.

This permit may be reopened to implement final EPA Effluent Limitations Guidelines and requirements may added and/or removed as applicable.

Other Conditions continued:

T. BOTTOM ASH PURGE WATER

The term "bottom ash purge water" means any water being discharged subject to 40 CFR 423.13(k)(2)(i).

On and after December 31, 2025, the discharge of pollutants in bottom ash transport water (bottom ash purge water) from a properly installed, operated, and maintained bottom ash system is authorized under the following conditions listed in 40 CFR 423.13(k)(2)(i)(A):

1. To maintain system water balance when precipitation-related inflows are generated from storm events exceeding a 10-year storm event of 24-hour or longer duration (e.g., 30-day storm event) and cannot be managed by installed spares, redundancies, maintenance tanks, and other secondary bottom ash equipment; or
2. To maintain system water balance when regular inflows from wastestreams other than bottom ash transport water exceed the ability of the bottom ash system to accept recycled water and segregating these other wastestreams is not feasible; or
3. To maintain system water chemistry where installed equipment at the facility is unable to manage pH, corrosive substances, substances or conditions causing scaling, or fine particulates to below levels which impact system operation or maintenance; or
4. To conduct maintenance not otherwise described above and not exempted from the definition of transport water in 40 CFR 423.13 (p), and when water volumes cannot be managed by installed spares, redundancies, maintenance tanks, and other secondary bottom ash system equipment.

The total volume that may be discharged for the above activities shall be reduced or eliminated to the extent achievable using control measures (including best management practices) that are technologically available and economically achievable in light of best industry practice.

In accordance with 40 CFR 423.13(k)(2)(i), this permit establishes a site specific BAT limitation on the volume of bottom ash purge water that can be discharged. Using the available information to date, LDEQ has determined that the total volume of the discharge to the settling pond shall not exceed a 30-day rolling average of ten percent of the primary active wetted bottom ash system volume. The volume of daily discharges used to calculate the 30-day rolling average shall be calculated using measurements from flow monitors or pump logs. Based on a calculated bottom ash transport system volume of 711,059 gallons, the 30-day rolling average discharge shall not exceed 0.071 MGD.

Other Conditions continued:

Initial Certification Statement

The permittee shall submit an initial certification statement in accordance with 40 CFR 423.19(c) by December 31, 2025. LDEQ reserves the right to reopen and/or modify the permit based on this information.

U. PRIMARY ACTIVE WETTED BOTTOM ASH SYSTEM VOLUME

The term "primary active wetted bottom ash system volume" means the maximum volumetric capacity of bottom ash transport water in all non-redundant piping (including recirculation piping) and primary bottom ash collection and recirculation loop tanks (e.g., bins, troughs, clarifiers, and hoppers) of a wet bottom ash system, excluding the volumes of surface impoundments, secondary bottom ash system equipment (e.g., installed spares, redundancies, maintenance tanks), and non-bottom ash transport systems that may direct process water to the bottom ash.

V. 30-DAY ROLLING AVERAGE

The term "30-day rolling average" means the series of averages using the measured values of the preceding 30 days for each average in the series.

W. BMPS FOR HYDRO-EXCAVATION WASTEWATERS

For facilities discharging wastewaters from hydro-excavation activities, the following BMPs shall be implemented and shall be documented in a written plan which is maintained onsite at the facility (and provided to this Office upon request).

1. The wastewaters generated during the hydro-excavation activities shall be contained in such a manner as to prevent stormwater and receiving waterbody contamination and shall be disposed of in accordance with applicable regulations.

2. To minimize sediment from entering the drainage system, stormwater BMPs shall be employed around the perimeter of the excavation site, and if necessary within the drainage system, to minimize sediment from discharging through the outfall.

3. The permittee shall maintain an operating log of all hydro-excavation activities performed. For each activity, the log shall include start and end date(s), the location, the BMPs used, the estimated volume of discharge to the receiving waters, the volume of slurry removed, and the name of the facility responsible for the disposal of the slurry. The permittee shall retain the operating log on-site for a period of three years from the date of the activities.

Other Conditions continued:

4. Chemical additives may not be added to the hydro-excavation water without prior approval from this Office. Written requests for approval must include toxicity data for each additive proposed for use, as well as a clear description of the proposed discharge including projected volumes of wastewater and additive levels in the wastewaters.

5. There shall be no discharge of floating solids or visible foam in other than trace amounts, nor of free oil or other oily materials, nor of toxic materials in quantities such as to cause acute toxicity to aquatic organisms. Furthermore, there shall be no visible sheen or stains attributable to the discharge.

6. Any spills, drips of fluids, or other contamination to the excavation area and the subsequent drainage area shall be picked up by dry means prior to the commencement of the hydro-excavation activities. The use of detergents, emulsifiers, or dispersants to clean up spilled contaminants is prohibited except where necessary to comply with State and Federal safety regulations (e.g., requirement for non-slippery work surface). In all such cases, initial cleanup shall be done by physical removal and chemical usage shall be minimized.

X. WHOLE EFFLUENT TOXICITY TESTING (7-DAY CHRONIC NOEC: FRESHWATER)

It is unlawful and a violation of this permit for a permittee or the designated agent, to manipulate test samples in any manner, to delay sample shipment, or to terminate or to cause to terminate a toxicity test. Once initiated, all toxicity tests must be completed unless specific authority has been granted by the Louisiana Department of Environmental Quality

1. SCOPE AND METHODOLOGY

a. The permittee shall test the effluent for toxicity in accordance with the provisions in this section.

APPLICABLE TO OUTFALL(S) AND SPECIES: 002 – CE[1]
002 – PI [2]

CRITICAL DILUTION: 13%

EFFLUENT DILUTION SERIES: 5%, 7%, 10%, 13%, & 17%

[1] CE = Ceriodaphnia dubia
[2] PI = Pimephales promelas

Other Conditions continued:

SAMPLE TYPE: 24-Hour Composite

TEST SPECIES/METHODS: 40 CFR Part 136

Ceriodaphnia dubia chronic static renewal survival and reproduction test, Method 1002.0, EPA-821-R-02-013, or the most recent update thereof. This test should be terminated when 60% of the surviving females in the control produce three broods or at the end of eight days, whichever comes first.

Pimephales promelas (Fathead minnow) chronic static renewal 7-day larval survival and growth test, Method 1000.0, EPA-821-R-02-013, or the most recent update thereof. A minimum of five (5) replicates with ten (10) organisms per replicate must be used in the control and in each effluent dilution of this test.

b. The survival NOEC (No Observed Effect Concentration) is defined as the greatest effluent dilution at and below which lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur. The NOEC for growth or reproduction is defined as the greatest effluent dilution at and below which sub-lethality that is statistically different from the control (0% effluent) at the 95% confidence level does not occur.

c. This permit may be reopened to require whole effluent toxicity limits, chemical specific effluent limits, additional testing, and/or other appropriate actions to address toxicity.

d. Lethal test failure is defined as a demonstration of a statistically significant lethal effect at test completion to a test species at or below the critical dilution. Sub-lethal test failure is defined as a demonstration of a statistically significant sub-lethal effect (i.e., growth or reproduction) at test completion to a test species at or below the critical dilution.

2. PERSISTENT LETHAL and/or SUB-LETHAL EFFECTS

The requirements of this section apply only when a toxicity test demonstrates significant lethal and/or sub-lethal effects at or below the critical dilution.

If any valid test demonstrates significant lethal or sub-lethal effects to a test species at or below the critical dilution, the frequency of testing for that species is automatically increased to once per quarter for the term of the permit.

Other Conditions continued:

a. The permittee shall conduct a total of three (3) additional tests for any species that demonstrates statistically significant lethal or sub-lethal toxic effects at the critical dilution or lower effluent dilutions. The additional tests shall be conducted monthly during the next three consecutive months in which a discharge occurs to determine if toxicity is persistent or occurs on a periodic basis. The purpose of this testing is to determine whether toxicity is present at a level and frequency that will provide toxic sample results to use in performing a Toxicity Reduction Evaluation (TRE). If no additional test failures occur during the retest monitoring period, the testing frequency will be once per quarter for the term of the permit or until another test failure occurs. The permittee may substitute one of the additional tests in lieu of one routine toxicity test. A full report shall be prepared for each test required by this section in accordance with procedures outlined in item 4 of this section and attached to the NetDMR (or approved substitute) submittal discharge monitoring report (DMR) for that monitoring period for the permitting authority for review.

b. IF LETHAL EFFECTS HAVE BEEN DEMONSTRATED: If any of the valid additional tests demonstrates significant lethal effects at or below the critical dilution, the permittee shall initiate Toxicity Reduction Evaluation (TRE) requirements as specified in item 5 of this section. The permittee shall notify the Department of Environmental Quality, Office of Environmental Services-Water Permits Division-General and Municipal Permits Section in writing within 5 days of the failure of any retest, and the TRE initiation date will be the test completion date of the first failed retest. A TRE may also be required due to a demonstration of intermittent lethal effects at or below the critical dilution, or for failure to perform the required retests.

c. IF ONLY SUB-LETHAL EFFECTS HAVE BEEN DEMONSTRATED: If any two of the three valid additional tests demonstrate significant sub-lethal effects at 75% effluent dilution or lower, the permittee shall initiate the Toxicity Reduction Evaluation (TRE) requirements (emphasizing investigations pertaining to sub-lethal toxicity) as specified in Item 5 of this section. The permittee shall notify the Department of Environmental Quality, Office of Environmental Services-Water Permits Division-General and Municipal Permits Section in writing within 5 days of the failure of any retest, and the TRE initiation date will be the test completion date of the second failed retest. A TRE concentrating on sub-lethal effects may also be required for failure to perform the required tests.

d. The provisions of item 2.a are suspended upon submittal of the **TRE Action Plan**.

Other Conditions continued:

3. REQUIRED TOXICITY TESTING CONDITIONS

a. Test Acceptance

The permittee shall repeat a test, including the control and all effluent dilutions, if the procedures and quality assurance requirements defined in the test methods or in this permit are not satisfied, including the following additional criteria:

i. The toxicity test control (0% effluent) must have survival equal to or greater than 80%.

ii. The mean number of Ceriodaphnia dubia neonates produced per surviving female in the control (0% effluent) must be 15 or more.

iii. 60% of the surviving control females must produce three broods.

iv. The mean dry weight of surviving Fathead minnow larvae at the end of the 7 days in the control (0% effluent) must be 0.25 mg per larva or greater.

v. The percent coefficient of variation between replicates shall be 40% or less in the control (0% effluent) for: the young of surviving females in the Ceriodaphnia dubia reproduction test; the growth and survival endpoints of the Fathead minnow test.

vi. The percent coefficient of variation between replicates shall be 40% or less in the critical dilution, unless significant lethal or nonlethal effects are exhibited for: the young of surviving females in the Ceriodaphnia dubia reproduction test; the growth and survival endpoints of the Fathead minnow test.

Test failure may not be construed or reported as invalid due to a coefficient of variation value of greater than 40%. A repeat test shall be conducted within the required reporting period of any test determined to be invalid. Tests deemed invalid per the requirements of item 3 will not be considered failures.

b. Statistical Interpretation

i. For the Ceriodaphnia dubia survival test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be Fisher's Exact Test as described in EPA-821-R-02-013, or the most recent update thereof.

Other Conditions continued:

If the conditions of Test Acceptability are met in Item 3.a above and the percent survival of the test organism is equal to or greater than 80% in the critical dilution and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report a survival NOEC of not less than the critical dilution for the DMR reporting requirements found in Item 4 below.

ii. For the Ceriodaphnia dubia reproduction test and the Fathead minnow larval survival and growth test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in EPA-821-R-02-013, or the most recent update thereof.

c. Dilution Water

i. Dilution water used in the toxicity tests will be receiving water collected as close to the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness and alkalinity to the closest downstream perennial water for;

A. toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and

B. toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.

ii. If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of item 3.a), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

A. a synthetic dilution water control which fulfills the test acceptance requirements of item 3.a was run concurrently with the receiving water control;

B. the test indicating receiving water toxicity has been carried out to completion (i.e., 7 days);

Other Conditions continued:

C. the permittee includes all test results indicating receiving water toxicity with the full report and information required by item 4 below; and

D. the synthetic dilution water shall have a pH, hardness and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

d. Samples and Composites

i. The permittee shall collect a minimum of three flow-weighted 24-hour composite samples from the outfall(s) listed at item 1.a above. A 24-hour composite sample consists of a minimum of 4 effluent portions collected at equal time intervals representative of a 24-hour operating day and combined proportional to flow or a sample continuously collected proportional to flow over a 24-hour operating day.

ii. The permittee shall collect second and third 24-hour composite samples for use during 24-hour renewals of each dilution concentration for each test. 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.

iii. The permittee must collect the 24-hour composite samples so that the maximum holding time for any effluent sample shall not exceed 72 hours. The permittee must have initiated the toxicity test within 36 hours after the collection of the last portion of the first 24-hour composite sample. Samples shall be chilled to 0-6 degrees Centigrade during collection, shipping and/or storage.

iv. If the flow from the outfall(s) being tested ceases during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions and the sample holding time are waived during that sampling period. However, the permittee must collect an effluent composite sample volume during the period of discharge that is sufficient to complete the required toxicity tests with daily renewal of effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The effluent composite sample collection duration and the static

Other Conditions continued:

renewal protocol associated with the abbreviated sample collection must be documented in the full report required in item 4 of this section.

4. REPORTING

a. A valid test must be completed and test results must be submitted for each species during each Monitoring Period. The permittee shall prepare a full report of the results of all tests conducted pursuant to this section in accordance with the Report Preparation Section of EPA-821-R-02-013, or the most current publication, for every valid or invalid toxicity test initiated whether carried to completion or not. The permittee shall retain each full report pursuant to the provisions of the Standard Conditions Section C of this permit. For any test which fails, is considered invalid, or which is terminated early for any reason, the full report must be submitted for agency review. **Any available information relevant to the test failure (e.g., faulty equipment, severe weather conditions) should be included in this report to assist the agency in assessing appropriate controls to prevent future toxic discharges.** The permittee shall submit the first full report to the following address or electronically as services become available to accept these reports:

Department of Environmental Quality
Office of Environmental Compliance
P.O. Box 4312
Baton Rouge, Louisiana 70821-4312
Attn: Permit Compliance Unit

b. The permittee shall submit the results of each valid toxicity test on the DMR for that Monitoring Period in accordance with the Standard Conditions Section D.4 and the DMR Monitoring Period schedule contained in the submittal/action requirements section of this permit. Attach retest information clearly marked as such to the NetDMR (or approved substitute) submittal for the Monitoring Period in which the retest occurred. Only results of valid tests are to be reported on the NetDMR (or approved substitute) submittal. The permittee shall attach the Table 1 Summary Sheet to the NetDMR (or approved substitute) submittal with each valid test.

i. Pimephales promelas (Fathead Minnow)

A. If the No Observed Effect Concentration (NOEC) for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TLP6C.

Other Conditions continued:

B. Report the NOEC value for survival, Parameter No. TOP6C.

C. Report the NOEC value for growth, Parameter No. TPP6C.

D. If the No Observed Effect Concentration (NOEC) for growth is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TGP6C.

E. Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQP6C.

ii. Ceriodaphnia dubia

A. If the NOEC for survival is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TLP3B.

B. Report the NOEC value for survival, Parameter No. TOP3B.

C. Report the NOEC value for reproduction, Parameter No. TPP3B.

D. If the No Observed Effect Concentration (NOEC) for reproduction is less than the critical dilution, enter a "1"; otherwise, enter a "0" for Parameter No. TGP3B.

E. Report the highest (critical dilution or control) Coefficient of Variation, Parameter No. TQP3B.

iii. The permittee shall report the following results for all VALID toxicity retests on the NetDMR (or approved substitute) submittal for that Monitoring Period.

A. Ceriodaphnia dubia

(i) Retest #1 (STORET CE22415): If the first monthly retest following failure of a routine test for Ceriodaphnia dubia results in an NOEC for survival less than the critical dilution, report a "1"; otherwise, report a "0".

Other Conditions continued:

Retest #1 (STORET CE22418): If the first monthly retest following failure of a routine test for Ceriodaphnia dubia results in an NOEC for reproduction that is less than the critical dilution, report a "1"; otherwise, report a "0".

(ii) Retest #2 (STORET CE22416): If the second monthly retest following failure of a routine test for Ceriodaphnia dubia results in an NOEC for survival less than the critical dilution, report a "1"; otherwise, report a "0".

Retest #2 (STORET CE22419): If the second monthly retest following failure of a routine test for Ceriodaphnia dubia results in an NOEC for reproduction that is less than the critical dilution, report a "1"; otherwise, report a "0".

(iii) Retest #3 (STORET CE51443): If the third monthly retest following failure of a routine test for Ceriodaphnia dubia results in an NOEC for survival less than the critical dilution, report a "1"; otherwise, report a "0".

Retest #3 (STORET CE51444): If the third monthly retest following failure of a routine test for Ceriodaphnia dubia results in an NOEC for reproduction that is less than the critical dilution, report a "1"; otherwise, report a "0".

B. Pimephales promelas

(i) Retest #1 (STORET PI22415): If the first monthly retest following failure of a routine test for Pimephales promelas results in an NOEC for survival less than the critical dilution, report a "1"; otherwise, report a "0".

Retest #1 (STORET PI22418): If the first monthly retest following failure of a routine test for Pimephales promelas results in an NOEC for growth

Other Conditions continued:

that is less than the critical dilution, report a "1"; otherwise, report a "0".

(ii) Retest #2 (STORET PI22416): If the second monthly retest following failure of a routine test for Pimephales promelas results in an NOEC for survival less than the critical dilution, report a "1"; otherwise, report a "0".

Retest #2 (STORET PI22419): If the second monthly retest following failure of a routine test for Pimephales promelas results in an NOEC for growth that is less than the critical dilution, report a "1"; otherwise, report a "0".

(iii) Retest #3 (STORET PI51443): If the third monthly retest following failure of a routine test for Pimephales promelas results in an NOEC for survival less than the critical dilution, report a "1"; otherwise, report a "0".

Retest #3 (STORET PI51444): If the third monthly retest following failure of a routine test for Pimephales promelas results in an NOEC for growth that is less than the critical dilution, report a "1"; otherwise, report a "0".

If, for any reason, a retest cannot be performed during the Monitoring Period in which the triggering routine test failure is experienced, the permittee shall attach a report on the following Monitoring Period's NetDMR (or approved substitute) submittal denoting the attachment as a retest. If retesting is not required during a given Monitoring Period, the permittee shall use the appropriate No Data Discharge Indicator (NODI) Code on corresponding electronic submittals.

The permittee shall submit the toxicity testing information contained in Table 1 of this permit with the NetDMR (or approved substitute) submittal subsequent to each and every toxicity test Monitoring Period. If not submitting electronically, the DMR and the summary table should be sent to the address indicated in 4.a.

Other Conditions continued:

5. TOXICITY REDUCTION EVALUATION (TRE)

a. The permittee shall submit a **Toxicity Reduction Evaluation (TRE) Action Plan and Schedule** for conducting a TRE for the following:

i. If lethal effects have been demonstrated: within (90) days of confirming lethality in any retest; or

ii. If only sub-lethal effects have been demonstrated: within (90) days of confirming sub-lethality at 75% effluent dilution or lower in any two out of three retests.

The **TRE Action Plan** shall specify the approach and methodology to be used in performing the TRE. A Toxicity Reduction Evaluation is an investigation intended to determine those actions necessary to achieve compliance with water quality-based effluent requirements and/or chemical-specific limits by reducing an effluent's toxicity (includes sub-lethal toxicity, if applicable) to an acceptable level. A TRE is defined as a step-wise process which combines toxicity testing and analyses of the physical and chemical characteristics of a toxic effluent to identify the constituents causing effluent lethal and/or sub-lethal toxicity and/or treatment methods which will reduce the effluent toxicity. The **TRE Action Plan** shall lead to the successful elimination of effluent lethal and/or sub-lethal toxicity at the critical dilution and include the following:

i. Specific Activities. The plan shall detail the specific approach the permittee intends to utilize in conducting the TRE. The approach may include toxicity characterizations, identifications and confirmation activities, source evaluation, treatability studies, or alternative approaches. When the permittee conducts Toxicity Characterization Procedures the permittee shall perform multiple characterizations and follow the procedures specified in the documents **"Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA-600/6-91/003)** and **"Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I" (EPA-600/6-91/005)**, or alternate procedures. When the permittee conducts Toxicity Identification Evaluations and Confirmations, the permittee shall perform multiple identifications and follow the methods specified in the documents **"Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity**

Other Conditions continued:

Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and **"Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081)**, as appropriate;

The documents referenced above may be obtained through the National Technical Information Service (NTIS) by phone at 1-800-553-6847, or by writing:

U.S. Department of Commerce
National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161

ii. Sampling Plan (e.g., locations, methods, holding times, chain of custody, preservation, etc.). The effluent sample volume collected for all tests shall be adequate to perform the toxicity test, toxicity characterization, identification and confirmation procedures, and conduct chemical specific analyses when a probable toxicant has been identified;

Where the permittee has identified or suspects specific pollutant(s) and/or source(s) of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical specific analyses for the identified and/or suspected pollutant(s) and/or source(s) of effluent toxicity. Where lethality was demonstrated within 48 hours of test initiation, each 24-hour composite sample shall be analyzed independently. Otherwise the permittee may substitute a composite sample, comprised of equal portions of the individual 24-hour composite samples, for the chemical specific analysis;

iii. Quality Assurance Plan (e.g., QA/QC implementation, corrective actions, etc.); and

iv. Project Organization (e.g., project staff, project manager, consulting services, etc.).

b. The permittee shall initiate the **TRE Action Plan** within thirty (30) days of plan and schedule submittal. The permittee shall assume all risks for failure to achieve the required toxicity reduction.

Other Conditions continued:

c. The permittee shall submit a quarterly **TRE Activities Report**, with the Discharge Monitoring Report in the months of January, April, July, and October, containing information on toxicity reduction evaluation activities including:

i. any data and/or substantiating documentation which identify the pollutant(s) and/or source(s) of effluent lethal and/or sub-lethal toxicity;

ii. any studies/evaluations and results on the treatability of the facility's effluent lethal and/or sub-lethal toxicity; and

iii. any data which identify effluent toxicity control mechanisms that will reduce effluent toxicity to achieve compliance with permit biomonitoring requirements and/or chemical-specific limits.

The **TRE Activities Report** shall be submitted to the following address or electronically as systems become available to accept these reports:

Department of Environmental Quality
Office of Environmental Services
P.O. Box 4313
Baton Rouge, Louisiana 70821-4313
Attn: General and Municipal Permits Section

d. The permittee shall submit a Final Report on Toxicity Reduction Evaluation Activities no later than twenty-eight (28) months from confirming lethality and/or sub-lethality (if applicable) in the retests, which provides information pertaining to the specific control mechanism selected that will, when implemented, result in the permittee achieving compliance with permit biomonitoring requirements and/or chemical-specific limits. The report will also provide a specific corrective action schedule for implementing the selected control mechanism.

A copy of the Final Report on Toxicity Reduction Evaluation Activities shall also be submitted to the above address or electronically as services become available to accept these reports.

e. Quarterly testing during the TRE is a minimum monitoring requirement. LDEQ recommends that permittees required to perform a TRE not rely on quarterly testing alone to ensure success in the TRE, and that additional

Other Conditions continued:

screening tests be performed to capture toxic samples for identification of toxicants. At the end of the TRE, LDEQ will consider all information submitted and establish appropriate controls to prevent future toxic discharges, including WET and/or chemical-specific limits per state regulations at LAC 33:IX.2707.D.1.e.

Y. LIMIT OF QUANTITATION (LOQ) FOR OTHER PARAMETERS

If any individual analytical test result for BOD5, TSS, TOC, or Oil & Grease is less than the limit of quantitation listed below, a value of zero (0) may be used for that individual result for the Discharge Monitoring Report (DMR) calculations and reporting requirements:

Parameter	LOQ (mg/L)
BOD_5	2.0
TOC	2.0
TSS	4.0
Oil & Grease	5.0

TABLE 1
SUMMARY SHEET
Ceriodaphnia dubia SURVIVAL AND REPRODUCTION TEST

PERMITTEE: Entergy Louisiana, LLC
FACILITY SITE: Roy S. Nelson Electric Generating Plant (Coal Unit 6)
LPDES PERMIT NUMBER: LA0059030 Agency Interest No.: 19588
OUTFALL IDENTIFICATION: 002
OUTFALL SAMPLE IS FROM ____SINGLE ____MULTIPLE DISCHARGE
BIOMONITORING LABORATORY: ____
DILUTION WATER USED: ____RECEIVING WATER ____LAB WATER
CRITICAL DILUTION ____13___% DATE TEST INITIATED____

1. LOW-FLOW LETHALITY:

Is the mean survival at 7 days significantly less (p=0.05) than the control survival at the low-flow or critical dilution? ___Yes___No

PERCENT SURVIVAL - Ceriodaphnia

TIME OF READING	PERCENT EFFLUENT					
	0%	5%	7%	10%	13%	17%
24-HOUR						
48-HOUR						
7-DAY						

2. LOW-FLOW SUB-LETHALITY:

Is the mean number of young produced per female at 7 days significantly less (p=0.05) than the control's number of young per female for the low-flow or critical dilution? _____Yes ____No

NUMBER OF YOUNG PRODUCED PER FEMALE @ 7 DAYS - Ceriodaphnia

REPLICATE	PERCENT EFFLUENT					
	0%	5%	7%	10%	13%	17%
A B C D E F G H I J						
Mean No. of young						
CV%*						

* Coefficient of variation = Standard Deviation * 100/mean

Ceriodaphnia dubia SURVIVAL AND REPRODUCTION TEST (continued)

3. Are the test results to be considered valid? ___Yes___No
   If _X_no (test invalid), what reasons for invalidity?

4. Is this a retest of a previous invalid test? ___Yes___No
   Is this a retest of a previous test failure? ___Yes___No

5. Enter percent effluent corresponding to each NOEC (No Observed Effect Concentration) for Ceriodaphnia:

   a. NOEC SURVIVAL = _____% effluent

   b. NOEC REPRODUCTION = _____% effluent

TABLE 1
SUMMARY SHEET
Pimephales promelas ("fathead minnow") SURVIVAL AND GROWTH TEST

PERMITTEE: Entergy Louisiana, LLC
FACILITY SITE: Roy S. Nelson Electric Generating Plant (Coal Unit 6)
LPDES PERMIT NUMBER: LA0059030 Agency Interest No.: 19588
OUTFALL IDENTIFICATION: 002
OUTFALL SAMPLE IS FROM _____SINGLE _____MULTIPLE DISCHARGE
BIOMONITORING LABORATORY: _____
DILUTION WATER USED: _____RECEIVING WATER _____LAB WATER
CRITICAL DILUTION 13 % DATE TEST INITIATED _____

1. LOW-FLOW LETHALITY:

Is the mean survival at 7 days significantly less (p=0.05) than the control survival at the low-flow or critical dilution? _____Yes ___No

PERCENT SURVIVAL - Pimephales

PERCENT EFFLUENT	% SURVIVAL / REPLICATES					MEAN % SURVIVAL			CV%
	A	B	C	D	E	24-HR	48-HR	7 DAY	
0%									
5%									
7%									
10%									
13%									
17%									

2. LOW-FLOW SUB-LETHALITY:

Is the mean dry weight (growth) at 7 days significantly less (p=0.05) than the control's dry weight (growth) for the low-flow or critical dilution? ___Yes___No

Pimephales promelas ("fathead minnow") SURVIVAL AND GROWTH TEST (continued)

DATA TABLE FOR GROWTH - Pimephales

PERCENT EFFLUENT	AVERAGE DRY WEIGHT IN MILLIGRAMS IN REPLICATE CHAMBERS					MEAN DRY WEIGHT	CV%*
	A	B	C	D	E		
0%							
5%							
7%							
10%							
13%							
17%							

* Coefficient of variation – standard deviation x 100/mean

3. Are the test results to be considered valid? ___Yes___No
   If _X_ no (test invalid), what reasons for invalidity?

4. Is this a retest of a previous invalid test? ___Yes___No
   Is this a retest of a previous test failure? ___Yes___No

5. Enter percent effluent corresponding to each NOEC (No Observed Effect Concentration) for Pimephales:

   a. NOEC SURVIVAL = _____% effluent

   b. NOEC GROWTH = _____% effluent

STANDARD CONDITIONS FOR LPDES PERMITS

SECTION A. GENERAL CONDITIONS

1. Introduction
   In accordance with the provisions of LAC 33:IX.2701, et seq., this permit incorporates either expressly or by reference ALL conditions and requirements applicable to the Louisiana Pollutant Discharge Elimination System Permits (LPDES) set forth in the Louisiana Environmental Quality Act (LEQA), as amended, as well as ALL applicable regulations.

2. Duty to Comply
   The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act (CWA) and the Louisiana Environmental Quality Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

3. Penalties for Violation of Permit Conditions
   a. R.S. 30:2025 provides for civil penalties for violations of these regulations and the Louisiana Environmental Quality Act. R.S. 30:2076.2 provides for criminal penalties for violation of any provisions of the LPDES or any order or any permit condition or limitation issued under or implementing any provisions of the LPDES program. (See Section E. Penalties for Violation of Permit Conditions for additional details.)

   b. Any person may be assessed an administrative penalty by the state administrative authority under R.S. 30:2025 for violating a permit condition or limitation implementing any of the requirements of the LPDES program in a permit issued under the regulations or the Louisiana Environmental Quality Act.

4. Toxic Pollutants
   a. Other effluent limitations and standards under Sections 301, 302, 303, 307, 318, and 405 of the Clean Water Act. If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Clean Water Act for a toxic pollutant, and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, the state administrative authority shall institute proceedings under these regulations to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition.

   b. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions, or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

5. Duty to Reapply
   a. Individual Permits. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The new application shall be submitted at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the state administrative authority. (The state administrative authority shall not grant permission for applications to be submitted later than the expiration date of the existing permit.) Continuation of expiring permits shall be governed by regulations promulgated at LAC 33:IX.2321 and any subsequent amendments.

   b. General Permits. General permits expire five years after the effective date. The 180-day reapplication period as defined above is not applicable to general permit authorizations. Reissued general permits may provide automatic coverage for permittees authorized under the previous version of the permit, and no new application is required. Requirements for obtaining authorization under the reissued general

permit will be outlined in Part I of the new permit. Permittees authorized to discharge under an expiring general permit should follow the requirements for obtaining coverage under the new general permit to maintain discharge authorization.

6. Permit Action
This permit may be modified, revoked and reissued, or terminated for cause in accordance with LAC 33:IX.2903, 2905, 2907, 3105, and 6509. The causes may include, but are not limited to, the following:

a. Noncompliance by the permittee with any condition of the permit;

b. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time;

c. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination;

d. A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge;

e. Failure to pay applicable fees under the provisions of LAC 33:IX.Chapter 13; or

f. Change of ownership or operational control.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

7. Property Rights
This permit does not convey any property rights of any sort, or any exclusive privilege, nor does it authorize any injury to private or public property, nor any infringement of federal, state, or local laws or regulations.

8. Duty to Provide Information
The permittee shall furnish to the state administrative authority, within a reasonable time, any information which the state administrative authority may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the state administrative authority, upon request, copies of records required to be kept by this permit.

9. Criminal and Civil Liability
Except as provided in permit conditions on "Bypassing" and "Upsets," nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Any false or materially misleading representation or concealment of information required to be reported by the provisions of the permit, the Act, or applicable regulations, which avoids or effectively defeats the regulatory purpose of the Permit may subject the permittee to criminal enforcement pursuant to R.S. 30:2025.

10. Oil and Hazardous Substance Liability
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

11. State Laws
Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Clean Water Act.

12. Severability
If any provision of these rules and regulations, or the application thereof, is held to be invalid, the remaining provisions of these rules and regulations shall not be affected, so long as they can be given effect without the invalid provision. To this end, the provisions of these rules and regulations are declared to be severable.

13. Dilution
A permittee shall not achieve any effluent concentration by dilution unless specifically authorized in the permit. A permittee shall not increase the use of process water or cooling water or otherwise attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve permit limitations or water quality.

14. Facilities Requiring Approval from Other State Agencies
In accordance with R.S. 40:4(A)(6) the plans and specifications of all sewerage works, both public and private, must be approved by the Louisiana Department of Health state health officer or his designee. It is unlawful for any person, firm, or corporation, both municipal and private, to operate a sanitary sewage treatment facility without proper authorization from the state health officer.

In accordance with R.S. 40:1281.9, it is unlawful for any person, firm or corporation, both municipal and private, operating a sewerage system to operate that system unless the competency of the operator is duly certified by the Louisiana Department of Health state health officer. Furthermore, it is unlawful for any person to perform the duties of an operator without being duly certified.

In accordance with R.S. 48.385, it is unlawful for any industrial wastes, sewage, septic tanks effluent, or any noxious or harmful matter, solid, liquid, or gaseous to be discharged into the side or cross ditches or placed upon the rights-of-ways of state highways without the prior written consent of the Department of Transportation and Development chief engineer or his duly authorized representative and of the secretary of the Louisiana Department of Health.

15. The standards provided in Chapter 11 – Surface Water Quality Standards are official regulations of the state, and any person who discharges pollutants to the waters of the state in such quantities as to cause these standards to be violated shall be subject to the enforcement procedures of the state as specified in R.S. 30:2025.

16. Preproduction Plastics
In accordance with the House Concurrent Resolution No. 37 from the 2021 Regular Session, there shall be zero discharge or release of preproduction plastic into waters of the state from facilities which manufacture or manage such material. Additionally, facilities which manufacture or manage preproduction plastic must maintain a spill prevention plan onsite or at the nearest manned facility (made available to LDEQ upon request) addressing procedures to prevent and abate any release or discharge of preproduction plastic into the waters of the state.

SECTION B. PROPER OPERATION AND MAINTENANCE

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

2. Duty to Mitigate
The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. The permittee shall also take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with the permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

3. Proper Operation and Maintenance
   a. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

   b. The permittee shall provide an adequate operating staff which is duly qualified to carry out operation, maintenance, and other functions necessary to ensure compliance with the conditions of this permit.

4. Bypass of Treatment Facilities
   a. Bypass. The intentional diversion of waste streams from any portion of a treatment facility.

   b. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Section B.4.c. and d of these standard conditions.

   c. Notice
      (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Office of Environmental Services, Water Permits Division, if possible at least 10 days before the date of the bypass.

      (2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in LAC 33:IX.2701.L.6 (24-hour notice) and Section D.6.e of these standard conditions.

   d. Prohibition of bypass
      (1) Bypass is prohibited, and the state administrative authority may take enforcement action against a permittee for bypass, unless:

         (a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

         (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

         (c) The permittee submitted notices as required by Section B.4.c of these standard conditions.

      (2) The state administrative authority may approve an anticipated bypass after considering its adverse effects, if the state administrative authority determines that it will meet the three conditions listed in Section B.4.d(1) of these standard conditions.

5. Upset Conditions
   a. Upset. An exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

   b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Section B.5.c are met. No

determination made during administrative review of claims that noncompliance was caused by an upset, and before an action for noncompliance, constitutes final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(1) An upset occurred and that the permittee can identify the cause(s) of the upset;

(2) The permitted facility was at the time being properly operated;

(3) The permittee submitted notice of the upset as required by LAC 33:IX.2701.L.6.b.ii and Section D.6.e(2) of these standard conditions; and

(4) The permittee complied with any remedial measures required by Section B.2 of these standard conditions.

d. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

6. Removed Substances
Solids, sewage sludges, filter backwash, or other pollutants removed in the course of treatment or wastewater control shall be properly disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the state and in accordance with environmental regulations.

7. Percent Removal
For Publicly Owned Treatment Works (POTWs), the 30-day average percent removal for Biochemical Oxygen Demand and Total Suspended Solids shall not be less than 85 percent in accordance with LAC 33:IX.5905.A.3 and B.3. POTWs utilizing waste stabilization ponds/oxidation ponds are not subject to the 85 percent removal rate for Total Suspended Solids.

SECTION C. MONITORING AND RECORDS

1. Inspection and Entry
The permittee shall allow the state administrative authority or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by the law to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.

Enter upon the permittee's premises where a discharge source is or might be located or in which monitoring equipment or records required by a permit are kept for inspection or sampling purposes. Most inspections will be unannounced and should be allowed to begin immediately, but in no case shall begin more than 30 minutes after the time the inspector presents his/her credentials and announces the purpose(s) of the inspection. Delay in excess of 30 minutes shall constitute a violation of this permit. However, additional time can be granted if the inspector or the administrative authority determines that the circumstances warrant such action;

b. Have access to and copy, at reasonable times, any records that the department or its authorized representative determines are necessary for the enforcement of this permit. For records maintained in either a central or private office that is open only during normal office hours and is closed at the time of inspection, the records shall be made available as soon as the office is open, but in no case later than the close of business the next working day;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act or the Louisiana Environmental Quality Act, any substances or parameters at any location.

e. Sample Collection
   (1) When the inspector announces that samples will be collected, the permittee may be given an additional 30 minutes to prepare containers in order to collect duplicates. If the permittee cannot obtain and prepare sample containers within this time, he is considered to have waived his right to collect duplicate samples and the sampling will proceed immediately. Further delay on the part of the permittee in allowing initiation of the sampling will constitute a violation of this permit.
   (2) At the discretion of the administrative authority, sample collection shall proceed immediately (without the additional 30 minutes described in Section C.1.a above), and the inspector shall supply the permittee with a duplicate sample.

f. It shall be the responsibility of the permittee to ensure that a facility representative familiar with provisions of its wastewater discharge permit, including any other conditions or limitations, be available either by phone or in person at the facility during all hours of operation. The absence of such personnel on-site who are familiar with the permit shall not be grounds for delaying the initiation of an inspection except in situations as described in Section C.1.b of these standard conditions. The permittee shall be responsible for providing witnesses/escorts during inspections. Inspectors shall abide by all company safety rules and shall be equipped with standard safety equipment (hard hat, safety shoes, safety glasses) normally required by industrial facilities.

g. Upon written request, copies of field notes, drawings, etc., taken by department personnel during an inspection shall be provided to the permittee after the final inspection report has been completed.

2. Representative Sampling
Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. All samples shall be taken at the outfall location(s) indicated in the permit. The state administrative authority shall be notified prior to any changes in the outfall location(s). Any changes in the outfall location(s) may be subject to modification, revocation, and reissuance in accordance with LAC 33:IX.2903.

3. Retention of Records
Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer, as required by 40 CFR 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the state administrative authority at any time.

4. Record Contents
Records of monitoring information shall include:

a. The date, exact place, and time of sampling or measurements;
b. The individual(s) who performed the sampling or measurements;
c. The date(s) analyses were performed;
d. The time(s) analyses were begun;
e. The individual(s) who performed the analyses;
f. The analytical techniques or methods used;
g. The results of such analyses; and
h. The results of all quality control procedures.

5. Monitoring Procedures
   a. Measurements and analyses must be conducted according to test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, unless other test procedures have been specified in this permit.

   b. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instruments at intervals frequent enough to ensure accuracy of measurements and shall maintain appropriate records of such activities.

   c. The permittee or designated laboratory shall have an adequate analytical quality assurance/quality control program to produce defensible data of known precision and accuracy. All quality control measures shall be assessed and evaluated on an ongoing basis, and quality control acceptance criteria shall be used to determine the validity of the data. All method-specific quality controls as prescribed in the method shall be followed. If quality control requirements are not included in the method, the permittee or designated laboratory shall follow the quality control requirements as prescribed in the Approved Edition (40 CFR Part 136) *Standard Methods for the Examination of Water and Wastewater*, Sections 1020A and 1020B. General sampling protocol shall follow guidelines established in the *Handbook for Sampling and Sample Preservation of Water and Wastewater*, 1982 U.S. Environmental Protection Agency. This publication is available from the National Service Center for Environmental Publications
   https://nepis.epa.gov/Exe/ZyNET.exe/30000QSA.TXT?ZyActionD=ZyDocument&Client=EPA&Index=1981+Thru+1985&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5Czyfiles%5CIndex%20Data%5C81thru85%5CTxt%5C00000001%5C30000QSA.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=hpfr&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL.

6. Flow Measurements
   Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10 percent from true discharge rates throughout the range of expected discharge volumes and shall be calibrated by a qualified source at least once a year to ensure their accuracy. A qualified source is a person that has received formal training and/or has practical field experience in the calibration of the flow measurement device used at the facility. Guidance in selection, installation, calibration, and operation of acceptable flow measurement devices can be obtained from the following references:

   a. *A Guide to Methods and Standards for the Measurement of Water Flow*, 1975, U.S. Department of Commerce, National Bureau of Standards. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, and telephone number (800) 553-6847. Order by NTIS publication number COM-75-10683.
   https://www.govinfo.gov/content/pkg/GOVPUB-C13-a301a5f6bf6ec378b4fabc9c626c03e2/pdf/GOVPUB-C13-a301a5f6bf6ec378b4fabc9c626c03e2.pdf

   b. *Flow Measurement in Open Channels and Closed Conduits*, Volumes 1 and 2 U.S. Department of Commerce, National Bureau of Standards. This publication is available from the National Technical Service (NTIS), Springfield, VA, 22161, and telephone number (800) 553-6847. Order by NTIS publication number PB-273 535.
   Volume 1:
   https://www.govinfo.gov/content/pkg/GOVPUB-C13-c0f8a094b9fcc5c32be685edbd48f942/pdf/GOVPUB-C13-c0f8a094b9fcc5c32be685edbd48f942.pdf.

Volume 2:
https://www.govinfo.gov/content/pkg/GOVPUB-C13-b3daf36f1cc0f770bc04d66da5cdc937/pdf/GOVPUB-C13-b3daf36f1cc0f770bc04d66da5cdc937.pdf

c. *NPDES Compliance Flow Measurement Manual*, U.S. Environmental Protection Agency, Office of Water Enforcement. This publication is available from the National Technical Information Service (NTIS), Springfield, VA 22161, and telephone number (800) 553-6847. Order by NTIS publication number PB-82-131178.
https://nepis.epa.gov/Exe/ZyNET.exe/9101TZLK.TXT?ZyActionD=ZyDocument&Client=EPA&Index=1981+Thru+1985&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5Czyfiles%5CIndex%20Data%5C81thru85%5CTxt%5C00000026%5C9101TZLK.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=hpfr&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL

7. Prohibition for Tampering: Penalties
   a. R.S. 30:2025 provides for punishment of any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit.

   b. R.S. 30:2076.2 provides for penalties for any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance.

8. Additional Monitoring by the Permittee
   If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 (see LAC 33:IX.4901), or in the case of sludge use and disposal, approved under 40 CFR Part 136 (see LAC 33:IX.4901) unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the state administrative authority.

9. Averaging of Measurements
   Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the state administrative authority in the permit.

10. Laboratory Accreditation
    a. LAC 33:I.Subpart 3, Chapters 45–59 provide requirements for an accreditation program specifically applicable to commercial laboratories, wherever located, that provide chemical analyses, analytical results, or other test data to the department, by contract or by agreement, and the data is:
       (1) Submitted on behalf of any facility, as defined in R.S. 30:2004;
       (2) Required as part of any permit application;
       (3) Required by order of the department;
       (4) Required to be included on any monitoring reports submitted to the department;
       (5) Required to be submitted by contractor; and/or
       (6) Otherwise required by department regulations.

    b. The department laboratory accreditation program, Louisiana Environmental Laboratory Accreditation Program (LELAP) is designed to ensure the accuracy, precision, and reliability of the data generated, as well as the use of department-approved methodologies in generation of that data. Laboratory data generated by commercial environmental laboratories that are not LELAP-accredited will not be accepted by the department. Retesting of analysis by an accredited commercial laboratory will be required.

       Where retesting of effluent is not possible (for example, data reported on DMRs for prior month's sampling), the data generated will be considered invalid and in violation of the LPDES permit.

c. Regulations on the Louisiana Environmental Laboratory Accreditation Program and a list of labs that have applied for accreditation are available on the department website located under LDEQ → About LDEQ→ Public Participation and Permit Support →LA Lab Accreditation at the following link:

http://deq.louisiana.gov/page/la-lab-accreditation

Questions concerning the program may be directed to (225) 219-3247.

SECTION D. REPORTING REQUIREMENTS

1. Facility Changes
The permittee shall give notice to the state administrative authority as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit nor to notification requirements under LAC 33:IX.2703.A.1.

c. For Municipal Permits. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Section 301 or 306 of the CWA if it were directly discharging those pollutants, and any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit. In no case are any new connections, increased flows, or significant changes in influent quality permitted that will cause violation of the effluent limitations specified herein.

2. Anticipated Noncompliance
The permittee shall give advance notice to the state administrative authority of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers
This permit is not transferable to any person except after notice to the state administrative authority. The state administrative authority may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act or the Louisiana Environmental Quality Act. (See LAC 33:IX.2901; in some cases, modification or revocation and reissuance is mandatory.)

A permit may be transferred by the permittee to a new owner or operator only if: (1) the permit has been modified or revoked and reissued (under LAC 33:IX.2903.A.2.b) by the permittee and new owner submitting a Name/Ownership/Operator Change Form (NOC-1 Form) and approved by LDEQ (LAC 33:I.Chapter 19); or (2) a minor modification made (under LAC 33:IX.2905) to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act and the Louisiana Environmental Quality Act.

The NOC-1 form can be found using the pathway LDEQ → Water→ LPDES Application Forms at the following link: http://deq.louisiana.gov/page/lpdes-water-permits

4. Monitoring Reports
Monitoring results shall be reported at the intervals specified elsewhere in this permit and shall be submitted through a department-approved electronic document receiving system (NetDMR) in accordance with LAC 33:I.Chapter 21 unless the state administrative authority gives written authorization to the permittee to submit monitoring results in an alternative format such as paper DMRs.

Information about NetDMR and gaining access can be viewed using the pathway LDEQ → Water→ Enforcement → NETDMR on the department's website at: http://deq.louisiana.gov/page/netdmr

The permittee shall submit properly completed Discharge Monitoring Reports (DMRs) using the format specified in the permit.

If authorized to report using an alternative format such as paper DMRs, then preprinted DMRs will be provided to majors and other designated facilities. Please contact the Permit Compliance Unit concerning preprints. Self-generated DMRs must be pre-approved by the Permit Compliance Unit prior to submittal. Self-generated DMRs are approved on an individual basis. Requests for approval of self-generated DMRs should be submitted to the following address:

Supervisor, Permit Compliance Unit
Office of Environmental Compliance
Post Office Box 4312
Baton Rouge, LA 70821-4312

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

6. Requirements for Notification

a. Emergency Notification
As required by LAC 33.I.3915, in the event of an unauthorized discharge that causes an emergency condition, the discharger shall notify the hotline (Department of Public Safety (DPS) 24-hour Louisiana Emergency Hazardous Materials Hotline) by telephone at (225) 925-6595 (collect calls accepted 24 hours a day) immediately (a reasonable period of time after taking prompt measures to determine the nature, quantity, and potential off-site impact of a release, considering the exigency of the circumstances), but in no case later than one hour after learning of the discharge. (An emergency condition is any condition which could reasonably be expected to endanger the health and safety of the public, cause significant adverse impact to the land, water, or air environment, or cause severe damage to property.) Notification required by this section will be made regardless of the amount of discharge. Prompt Notification Procedures are listed in Section D.6.c of these standard conditions.

A written report shall be provided within seven calendar days after the notification. The report shall contain the information listed in Section D.6.d of these standard conditions and any additional information in LAC 33:I.3925.B.

b. Prompt Notification
As required by LAC 33:I.3917, in the event of an unauthorized discharge that exceeds a reportable quantity specified in LAC 33:I.Chapter 39.Subchapter E, but does not cause an emergency condition, the discharger shall promptly notify DPS by telephone at (225) 925-6595 (collect calls accepted 24 hours a day) within 24 hours after learning of the discharge.

In the event of an unauthorized discharge that requires notification, the DPS 24-hour Louisiana Emergency Hazardous Materials Hotline will notify the Department of Environmental Quality.

In accordance with LAC 33:I.3923, notifications not required by LAC 33:I.3915 or 3917 shall be provided to the department within a time frame not to exceed 24 hours, or as specified by the specific regulation or permit provision requiring the notification, and shall be given to Single Point of Contact (SPOC), as follows:

(1) by the Online Incident Reporting screens found at http://deq.louisiana.gov/page/file-a-complaint-report-an-incident; or

(2) by email utilizing the Incident Report Form and instructions found at https://www.deq.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=single-point-of-contact; or
(3) by telephone at (225) 219-3640 during office hours, or (225) 342-1234 after hours and on weekends and holidays.

c. Content of Prompt Notifications The following guidelines will be utilized as appropriate, based on the conditions and circumstances surrounding any unauthorized discharge, to provide relevant information regarding the nature of the discharge:
(1) the name of the person making the notification and the telephone number where any return calls from response agencies can be placed;
(2) the name and location of the facility or site where the unauthorized discharge is imminent or has occurred, using common landmarks. In the event of an incident involving transport, include the name and address of the transporter and generator;
(3) the date and time the incident began and ended, or the estimated time of continuation if the discharge is continuing;
(4) the extent of any injuries and identification of any known personnel hazards that response agencies may face;
(5) the common or scientific chemical name, the U.S. Department of Transportation hazard classification, and the best estimate of amounts of any and all discharged pollutants; and
(6) a brief description of the incident sufficient to allow response agencies to formulate their level and extent of response activity.

d. Written Notification Procedures Written reports for any unauthorized discharge that requires notification under Section D.6.a or b, shall be submitted by the discharger to the Office of Environmental Compliance, Emergency and Radiological Services Division - SPOC in accordance with LAC 33:I.3925 within seven calendar days after the notification required by D.6.a or 6.b, unless otherwise provided for in a valid permit or other department regulation. Written notification reports shall include, but not be limited to, the following information:
(1) the name, address, telephone number, Agency Interest (AI) number (number assigned by the department) if applicable, and any other applicable identification numbers of the person, company, or other party who is filing the written report, and specific identification that the report is the written follow-up report required by this section;
(2) the time and date of prompt notification, the state official contacted when reporting, the name of person making that notification, identification of the site or facility, vessel, transport vehicle, or storage area from which the unauthorized discharge occurred, and the location where the incident occurred;
(3) date(s), time(s), and duration of the unauthorized discharge and, if not corrected, the anticipated time it is expected to continue;
(4) details of the circumstances (unauthorized discharge description and root cause) and events leading to any unauthorized discharge, including incidents of loss of sources of radiation, and if the release point is subject to a permit:
(a) the current permitted limit for the pollutant(s) released; and
(b) the permitted release point/outfall ID
(5) the common or scientific chemical name of each specific pollutant that was released as the result of an unauthorized discharge, including the CAS number and U.S. Department of Transportation hazard classification, and the best estimate of amounts of any and all released pollutants (total amount of each compound expressed in pounds, including calculations);
(6) a statement of the actual or probable fate or disposition of the pollutant or source of radiation and what off-site impact resulted; and
(7) remedial actions taken, or to be taken, to stop unauthorized discharges or to recover pollutants or sources of radiation.

Written notification reports shall be submitted to the Office of Environmental Compliance, SPOC by mail or e-mail. The transmittal envelope and report or e-mail subject line and report should be clearly marked "**UNAUTHORIZED DISCHARGE NOTIFICATION REPORT**."

Written reports (LAC 33:I.3925) should be mailed to:

Louisiana Department of Environmental Quality
Post Office Box 4312
Baton Rouge, LA 70821-4312
ATTENTION: OFFICE OF ENVIRONMENTAL COMPLIANCE – SPOC "UNAUTHORIZED DISCHARGE NOTIFICATION REPORT"

The Written Notification Report may be emailed to the Louisiana Department of Environmental Quality, Office of Environmental Compliance, Single Point of Contact at: writtennotificationLDEQ@la.gov.

Please see LAC 33:I.3925.B for additional written notification procedures.

e. Twenty-four Hour Reporting The permittee shall report any noncompliance which may endanger human health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The following shall be included as information which must be reported within 24 hours:

(1) Any unanticipated bypass which exceeds any effluent limitation in the permit (see LAC 33:IX.2701.M.3.b);

(2) Any upset which exceeds any effluent limitation in the permit; and/or

(3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the state administrative authority in Part II of the permit to be reported within 24 hours (LAC 33:IX.2707.G).

7. Other Noncompliance
The permittee shall report all instances of noncompliance not reported under Section D.4, 5, and 6, at the time monitoring reports are submitted. The reports shall contain the information listed in Section D.6.e.

8. Other Information
Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the state administrative authority, it shall promptly submit such facts or information.

9. Discharges of Toxic Substances
In addition to the reporting requirements under Section D.1–8, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Office of Environmental Services, Water Permits Division as soon as they know or have reason to believe:
   a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant:
      (1) listed at LAC 33:IX.7107, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
         (a) One hundred micrograms per liter (100 µg/L);
         (b) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
         (c) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with LAC 33:IX.2501.G.7; or
         (d) The level established by the state administrative authority in accordance with LAC 33:IX.2707.F; or

(2) which exceeds the reportable quantity levels for pollutants at LAC 33:I.Chapter 39.Subchapter E.

b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant:
   (1) listed at LAC 33:IX.7107, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

      (a) Five hundred micrograms per liter (500 µg/L);
      (b) One milligram per liter (1 mg/L) for antimony;
      (c) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with LAC 33:IX.2501.G.7; or
      (d) The level established by the state administrative authority in accordance with LAC 33:IX.2707.F; or

   (2) which exceeds the reportable quantity levels for pollutants at LAC 33:I.Chapter 39.Subchapter E.

10. Signatory Requirements
All applications, reports, or information submitted to the state administrative authority shall be signed and certified.
   a. All permit applications shall be signed as follows:
      (1) For a corporation—by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
         (a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or,
         (b) The manager of one or more manufacturing, production, or operating facilities, provided: the manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of making major capital investment recommendations and initiating and directing other comprehensive measures to ensure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and the authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

      NOTE: The department does not require specific assignments or delegations of authority to responsible corporate officers identified in Section D.10.a(1)(a). The agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the state administrative authority to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under Section D.10.a(1)(b) rather than to specific individuals.

      (2) For a partnership or sole proprietorship—by a general partner or the proprietor, respectively; or
      (3) For a municipality, state, federal, or other public agency—by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes:
         (a) The chief executive officer of the agency, or
         (b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (for example, Regional Administrators of EPA).

   b. All reports required by permits and other information requested by the state administrative authority shall be signed by a person described in Section D.10.a, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
      (1) The authorization is made in writing by a person described in Section D.10.a of these standard conditions;

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company, (a duly authorized representative may thus be either a named individual or an individual occupying a named position); and,

(3) The written authorization is submitted to the state administrative authority.

c. Changes to authorization. If an authorization under Section D.10.b is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Section D.10.b must be submitted to the state administrative authority prior to or together with any reports, information, or applications to be signed by an authorized representative.

d. Certification. Any person signing a document under Section D.10.a or b above, shall make the following certification:

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

11. Availability of Reports

All recorded information (completed permit application forms, fact sheets, draft permits, or any public document) not classified as confidential information under R.S. 30:2030(A) and 30:2074(D) and designated as such in accordance with these regulations (LAC 33:IX.2323 and LAC 33:IX.6503) shall be made available to the public for inspection and copying during normal working hours in accordance with the Public Records Act, R.S. 44:1 et seq.

Claims of confidentiality for the following will be denied:

a. The name and address of any permit applicant or permittee; or

b. Permit applications, permits, and effluent data.

Information required by LPDES application forms provided by the state administrative authority under LAC 33:IX.2501 may not be claimed confidential. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

SECTION E. PENALTIES FOR VIOLATIONS OF PERMIT CONDITIONS

1. Criminal

a. Negligent Violations

R.S. 30:2076.2 provides that any person who negligently violates any provision of the LPDES, or any order issued by the secretary under the LPDES, or any permit condition or limitation implementing any such provision in a permit issued under the LPDES by the secretary, or any requirement imposed in a pretreatment program approved under the LPDES is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both. If a conviction of a person is for a violation committed after a first conviction of such person, he shall be subject to a fine of not more than $50,000 per day of violation, or imprisonment of not more than two years, or both.

b. Knowing Violations

R.S. 30:2076.2 provides that any person who knowingly violates any provision of the LPDES, or any permit condition or limitation implementing any such provisions in a permit issued under the LPDES, or

any requirement imposed in a pretreatment program approved under the LPDES is subject to a fine of not less than $5,000 nor more than $50,000 per day of violation, or imprisonment for not more than three years, or both. If a conviction of a person is for a violation committed after a first conviction of such person, he shall be subject to a fine of not more than $100,000 per day of violation, or imprisonment of not more than six years, or both.

c. Knowing Endangerment
R.S. 30:2076.2 provides that any person who knowingly violates any provision of the LPDES, or any order issued by the secretary under the LPDES, or any permit condition or limitation implementing any of such provisions in a permit issued under the LPDES by the secretary, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000, or by imprisonment for not more than 15 years, or both. A person which is an organization shall, upon conviction of violating this Paragraph, be subject to a fine of not more than one million dollars. If a conviction of a person is for a violation committed after a first conviction of such person under this Paragraph, the maximum punishment shall be doubled with respect to both fine and imprisonment.

d. False Statements
R.S. 30:2076.2 provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the LPDES or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under the LPDES, shall, upon conviction, be subject to a fine of not more than $10,000, or imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this Subsection, he shall be subject to a fine of not more than $20,000 per day of violation, or imprisonment of not more than four years, or both.

2. Civil Penalties
R.S. 30:2025 provides that any person found to be in violation of any requirement of this Subtitle may be liable for a civil penalty, to be assessed by the secretary, an assistant secretary, or the court, of not more than the cost to the state of any response action made necessary by such violation which is not voluntarily paid by the violator, and a penalty of not more than $32,500 for each day of violation. However, when any such violation is done intentionally, willfully, or knowingly, or results in a discharge or disposal which causes irreparable or severe damage to the environment or if the substance discharged is one which endangers human life or health, such person may be liable for an additional penalty of not more than one million dollars.

(**PLEASE NOTE**: These penalties are listed in their entirety in Subtitle II of Title 30 of the Louisiana Revised Statutes.)

SECTION F. DEFINITIONS

All definitions contained in Section 502 of the Clean Water Act shall apply to this permit and are incorporated herein by reference. Additional definitions of words or phrases used in this permit are as follows:

1. Clean Water Act (CWA) means the Public Law 92-500 as amended by Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et seq. The CWA was formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972.

2. Accreditation means the formal recognition by the department of a laboratory's competence wherein specific tests or types of tests can be accurately and successfully performed in compliance with all minimum requirements set forth in the regulations regarding laboratory accreditation.

3. Administrator means the Administrator of the U.S. Environmental Protection Agency, or an authorized representative.

4. Applicable Standards and Limitations means all state, interstate and federal standards and limitations to which a discharge is subject under the Clean Water Act, including effluent limitations, water quality standards of performance, toxic effluent standards or prohibitions, best management practices, and pretreatment standards under Sections 301, 302, 303, 304, 306, 307, 308, and 403.

5. Applicable water quality standards means all water quality standards to which a discharge is subject under the Clean Water Act.

6. Commercial Laboratory means any laboratory, wherever located, that performs analyses or tests for third parties for a fee or other compensation and provides chemical analyses, analytical results, or other test data to the department. The term commercial laboratory does not include laboratories accredited by the Louisiana Department of Health in accordance with R.S. 49:1001 et seq.

7. Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the sampling day. Daily discharge determination of concentration made using a composite sample shall be the concentration of the composite sample.

8. Daily Maximum discharge limitation means the highest allowable "daily discharge."

9. Director means the U.S. Environmental Protection Agency Regional Administrator, or the state administrative authority, or an authorized representative.

10. Domestic septage means either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from grease trap at a restaurant.

11. Domestic sewage means waste and wastewater from humans or household operations that is discharged to or otherwise enters a treatment works.

12. Environmental Protection Agency (or EPA) means the U.S. Environmental Protection Agency.

13. Grab sample means an individual sample collected over a period of time not exceeding 15 minutes, unless more time is needed to collect an adequate sample, and is representative of the discharge.

14 Industrial user means a nondomestic discharger, as identified in 40 CFR 403, introducing pollutants to a Publicly Owned Treatment Works.

15 LEQA means the Louisiana Environmental Quality Act.

16. Loading is presented in the permit and reported in the DMR as the total amount of a pollutant entering the facility or discharged in the effluent. It is calculated by knowing the amount of flow, the concentration, and the density of water. Results should be rounded off and expressed with the same number of significant figures as the permit limit. If the permit does not explicitly state how many significant figures are associated with the permit limit, the permittee shall use two.

Loading (lbs/day) = Flow (in MGD) x Concentration (mg/L) x 8.34*

*8.34 is the unit conversion for the weight of water

17. Louisiana Pollutant Discharge Elimination System (LPDES) means those portions of the Louisiana Environmental Quality Act and the Louisiana Water Control Law and all regulations promulgated under their authority which are deemed equivalent to the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act in accordance with Section 402 of the Clean Water Act and all applicable federal regulations.

18. Monthly Average discharge limitations (other than for bacteria indicators, such as fecal coliform and enterococci) are calculated as the sum of all "daily discharge(s)" measured during a calendar month divided by the number of "daily discharge(s)" measured during that month. When the permit establishes monthly average concentration effluent limitations or conditions, and flow is measured as continuous record or with a totalizer, the monthly average concentration means the arithmetic average (weighted by flow) of all "daily discharge(s)" of concentration determined during the calendar month where C = daily discharge concentration, F = daily flow and n = number of daily samples; monthly average discharge =

$$\frac{C_1F_1 + C_2F_2 + \ldots + C_nF_n}{F_1 + F_2 + \ldots + F_n}$$

When the permit establishes monthly average concentration effluent limitations or conditions, and the flow is not measured as a continuous record, then the monthly average concentration means the arithmetic average of all "daily discharge(s)" of concentration determined during the calendar month.

The monthly average for bacteria indicators is the geometric mean of the values for all effluent samples collected during a calendar month.

19. National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the Clean Water Act.

20. POTW means Publicly Owned Treatment Works.

21. Sanitary Wastewater Term(s):

    a. 3-hour composite sample consists of three effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) over the 3-hour period and composited according to flow, or a sample continuously collected in proportion to flow over the 3-hour period.

    b. 6-hour composite sample consists of six effluent portions collected no closer together than one hour (with the first portion collected no earlier than 10:00 a.m.) over the 6-hour period and composited according to flow, or a sample continuously collected in proportion to flow over the 6-hour period.

    c. 12-hour composite sample consists of 12 effluent portions collected no closer together than one hour over the 12-hour period and composited according to flow, or a sample continuously collected in proportion to flow over the 12-hour period. The daily sampling intervals shall include the highest flow periods.

    d. 24-hour composite sample consists of a minimum of 12 effluent portions collected at equal time intervals over the 24-hour period and combined proportional to flow or a sample continuously collected in proportion to flow over the 24-hour period.

22. Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

23. Sewage sludge means any solid, semisolid, or liquid residue removed during the treatment of municipal wastewater or domestic sewage. *Sewage sludge* includes, but is not limited to, solids removed during primary, secondary, or advanced wastewater treatment, scum, domestic septage, portable toilet pumpings, Type III marine sanitation device pumpings (33 CFR Part 159), and sewage sludge products. *Sewage sludge* does not include grit or screenings, or ash generated during the incineration of sewage sludge.

24. Stormwater Runoff means aqueous surface runoff including any soluble or suspended material mobilized by naturally occurring precipitation events.

25. Surface Water means all lakes, bays, rivers, streams, springs, ponds, impounding reservoirs, wetlands, swamps, marshes, water sources, drainage systems and other surface water, natural or artificial, public or private within the state or under its jurisdiction that are not part of a treatment system allowed by state law, regulation, or permit.

26. Treatment works means any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage and industrial wastes of a liquid nature to implement Section 201 of the Clean Water Act, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works, including intercepting sewers, sewage collection systems, pumping, power and other equipment, and their appurtenances, extension, improvement, remodeling, additions, and alterations thereof. (See Part 212 of the Clean Water Act.)

27. For fecal coliform bacteria, a sample consists of one effluent grab portion collected during a 24-hour period at peak loads.

28. The term MGD shall mean million gallons per day.

29. The term GPD shall mean gallons per day.

30. The term mg/L shall mean milligrams per liter or parts per million (ppm).

31. The term SPC shall mean Spill Prevention and Control. Plan covering the release of pollutants as defined by the Louisiana Administrative Code (LAC 33:IX.Chapter 9).

32. The term SPCC shall mean Spill Prevention Control and Countermeasures Plan. Plan covering the release of pollutants as defined in 40 CFR Part 112.

33. The term µg/L shall mean micrograms per liter or parts per billion (ppb).

34. The term ng/L shall mean nanograms per liter or parts per trillion (ppt).

35. Visible Sheen means a silvery or metallic sheen, gloss, or increased reflectivity; visual color; or iridescence on the water surface.

36. Wastewater means liquid waste resulting from commercial, municipal, private, or industrial processes. Wastewater includes, but is not limited to, cooling and condensing waters, sanitary sewage, industrial waste, and contaminated rainwater runoff.

37. Waters of the State means for the purposes of the Louisiana Pollutant Discharge Elimination system, all surface waters within the state of Louisiana and, on the coastline of Louisiana and the Gulf of Mexico, all surface waters extending therefrom three miles into the Gulf of Mexico. For purposes of the Louisiana Pollutant Discharge Elimination System, this includes all surface waters which are subject to the ebb and flow of the tide, lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, natural ponds, impoundments of waters within the state of Louisiana otherwise defined as "waters of the United States" in 40 CFR 122.2, and tributaries of all such waters. "Waters of the state" does not include waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act, 33 U.S.C. 1251 et seq.

38. Weekly average, other than for fecal coliform bacteria, is the highest allowable arithmetic mean of the daily discharges over a calendar week, calculated as the sum of all "daily discharge(s)" measured during a calendar week divided by the number of "daily discharge(s)" measured during that week. When the permit establishes weekly average concentration effluent limitations or conditions, and flow is measured as continuous record or with a totalizer, the weekly average concentration means the arithmetic average (weighted by flow) of all "daily discharge(s)" of concentration determined during the calendar week where C = daily discharge concentration, F = daily flow and n = number of daily samples; weekly average discharge

$$= \frac{C_1F_1 + C_2F_2 + \ldots + C_nF_n}{F_1 + F_2 + \ldots + F_n}$$

When the permit establishes weekly average concentration effluent limitations or conditions, and the flow is not measured as a continuous record, then the weekly average concentration means the arithmetic average of all "daily discharge(s)" of concentration determined during the calendar week.

The weekly average for fecal coliform bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.