STATE OF LOUISIANA

DEPARTMENT OF ENVIRONMENTAL QUALITY

IN THE MATTER OF: * Settlement Tracking No.

* SA-AE-25-0002

LOUISIANA INTEGRATED *

POLYETHYLENE JV LLC

* Enforcement Tracking No.

AI # 226602 * AE-PP-22-00129

*

PROCEEDINGS UNDER THE LOUISIANA *

ENVIRONMENTAL QUALITY ACT
LA. R.S. 30:2001, ET SEQ.
*

SETTLEMENT AGREEMENT

The following Settlement Agreement is hereby agreed to between Louisiana Integrated Polyethylene JV LLC ("Respondent") and the Department of Environmental Quality ("DEQ" or "the Department"), under authority granted by the Louisiana Environmental Quality Act, La. R.S. 30:2001, et seq. ("the Act").

I

Respondent is a limited liability company that owns and/or operates a facility located in Westlake, Calcasieu Parish, Louisiana ("the Facility").

II

On June 12, 2023, the Department issued to Respondent a Notice of Potential Penalty, Enforcement Tracking No. AE-PP-22-00129 (Exhibit 1).

III

Respondent denies it committed any violations or that it is liable for any fines, forfeitures and/or penalties.

Nonetheless, Respondent, without making any admission of liability under state or federal statute or regulation, agrees to pay, and the Department agrees to accept, a payment in the amount of THIRTY-TWO THOUSAND THREE HUNDRED FIFTY-FIVE AND NO/100 DOLLARS (\$32,355.00), of which Two Thousand Four Hundred Twelve and 04/100 Dollars (\$2,412.04) represents the Department's enforcement costs, in settlement of the claims set forth in this Settlement Agreement. The total amount of money expended by Respondent on cash payments to the Department as described above, shall be considered a civil penalty for tax purposes, as required by La. R.S. 30:2050.7(E)(1).

V

Respondent further agrees that the Department may consider the inspection report(s), permit record(s), the Notice of Potential Penalty and this Settlement Agreement for the purpose of determining compliance history in connection with any future enforcement or permitting action by the Department against Respondent, and in any such action Respondent shall be estopped from objecting to the above-referenced documents being considered as proving the violations alleged herein for the sole purpose of determining Respondent's compliance history.

VI

This Settlement Agreement shall be considered a final order of the Secretary for all purposes, including, but not limited to, enforcement under La. R.S. 30:2025(G)(2), and Respondent hereby waives any right to administrative or judicial review of the terms of this agreement, except such review as may be required for interpretation of this Settlement Agreement in any action by the Department to enforce this Settlement Agreement.

This Settlement Agreement is being made in the interest of settling the state's claims and avoiding for both parties the expense and effort involved in litigation or an adjudicatory hearing. In agreeing to the compromise and Settlement Agreement, the Department considered the factors for issuing civil penalties set forth in La. R.S. 30:2025(E) of the Act.

VIII

As required by law, the Department has submitted this Settlement Agreement to the Louisiana Attorney General for approval or rejection. The Attorney General's concurrence is appended to this Settlement Agreement.

ΙX

The Respondent has caused a public notice advertisement to be placed in the official journal of the parish governing authority in Calcasieu Parish, Louisiana. The advertisement, in form and wording approved by the Department, announced the availability of this Settlement Agreement for public view and comment and the opportunity for a public hearing. Respondent has submitted an original proof-of-publication affidavit and an original public notice to the Department and, as of the date this Settlement Agreement is executed on behalf of the Department, more than forty-five (45) days have elapsed since publication of the notice.

X

Payment is to be made within thirty (30) days from notice of the Secretary's signature. If payment is not received within that time, this Settlement Agreement is voidable at the option of the Department. The Respondent shall provide its tax identification number when submitting payment. Payments are to be made by check, payable to the Department of Environmental Quality, and mailed or delivered to the attention of Accountant Administrator, Financial Services Division, Department

of Environmental Quality, Post Office Box 4303, Baton Rouge, Louisiana, 70821-4303. Each payment shall be accompanied by a completed Settlement Payment Form attached hereto.

XI

In consideration of the above, any claims for penalties are hereby compromised and settled in accordance with the terms of this Settlement Agreement.

XII

Each undersigned representative of the parties certifies that he or she is fully authorized to execute this Settlement Agreement on behalf of his or her respective party, and to legally bind such party to its terms and conditions.

LOUISIANA INTEGRATED POLYETHYLENE JV LLC

	BY: (Signature)
	Timothy E. Carrell (Printed)
THUS DONE AND SIGNED in dup August, 2025	olicate original before me this 14th day of at Mestlake, Louisiana. NOTARY PUBLIC (ID # 40899)
	Katherine Vincent (stamped or printed)
	LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY Corevinoy J. Burdette, Secretary
	BY: Jerrie "Jerry" Lang Assistant Secretary Office of Environmental Compliance
THUS DONE AND SIGNED in dup	olicate original before me this 24th day of , at Baton Rouge, Louisiana.
OFFICIAL SEAL DEIDRA JOHNSON NOTARY ID # 51205 STATE OF LOUISIANA PARISH OF EAST BATON ROUGE My Commission is for Life	NOTARY PUBLIC (ID # 51205)
	(stamped or printed)
Approved:	cretary

JOHN BEL EDWARDS
GOVERNOR



ROGER W. GINGLES SECRETARY

State of Louisiana

DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL COMPLIANCE

JUN 1 2 2023

CERTIFIED MAIL (7020 2450 0001 6670 2723)
RETURN RECEIPT REQUESTED

LOUISIANA INTEGRATED POLYETHYLENE JV LLC

c/o C T Corporation System Agent for Service of Process 3867 Plaza Tower Drive Baton Rouge, LA 70816

RE: NOTICE OF POTENTIAL PENALTY

ENFORCEMENT TRACKING NO. AE-PP-22-00129

AGENCY INTEREST NO. 226602

Dear Sir/Madam:

On or about July 9, 2021, an incident inspection of LOUISIANA INTEGRATED POLYETHYLENE JV LLC (the FACILITY), owned and/or operated by LOUISIANA INTEGRATED POLYETHYLENE JV LLC (RESPONDENT), was performed to determine the degree of compliance with the Louisiana Environmental Quality Act (the Act) and the Air Quality Regulations. The facility is located at 2201 Old Spanish Trail in Westlake, Calcasieu Parish, Louisiana. The facility is subject to Program Level 3 requirements under the Chemical Accident Prevention Provisions (CAPP) regulations (40 CFR 68).

In correspondence dated January 6, 2021, the Respondent informed the Department of an agreement between Sasol Chemicals (USA) LLC and LyondellBasell Industries N.V. to form a 50/50 joint venture (JV) company, through which LyondellBasell Industries N.V. acquired 50 percent of Sasol's Lake Charles Chemical Complex (LCCC) (AI 3271) 1.5 MM ton ethane cracker, 0.9 MM ton low and linear-low density polyethylene plants, and all associated infrastructure. The Notification of Change form (NOC-1) requested the transfer of six (6) Title V Air Permits to the Respondent effective December 1, 2020, and noted that the facility operator changed to Equistar Chemicals, LP. In a letter signed March 18, 2021, the Department transferred the requested permits to the Respondent, effective December 1, 2020. The transferred permits and subsequently issued permits to the Respondent are listed in the table below:

Unit	3113-V4AA	December 15, 2021	N/A	November 7, 2024
Low Density Polyethylene (LDPE)	3113-V4	October 12, 2020	December 1, 2020	

	3116-V4	October 12, 2020	December 1, 2020	
Linear Low Density Polyethylene (LLDPE) Unit	3116-V4AA	October 15, 2021	N/A	January 10, 2024
(rrnse) öist	3116-V5	December 3, 2021	N/A	
	3118-V3	December 9, 2020	December 1, 2020	Inciana 10 (2024
Ethylene 2 (ETH2) Unit	3118-V3AA	October 15, 2021	N/A	January 10, 2024
	3167-V0	January 10, 2019	December 1, 2020	Innian, 10, 2024
Steam 2 Unit	3167-V0AA	October 15, 2021	N/A	January 10, 2024
	3168-V0	January 10, 2019	December 1, 2020	January 10, 2024
Wastewater Treatment Plant 2	3168-V0AA	October 15, 2021	N/A	January 10, 2024
	3170-V1	January 5, 2021	December 1, 2020	
Utilities, Offsites, and	3170-V1AA	October 15, 2021	N/A	January 10, 2024
(nfrastructure (UO&I)	3170-V2	October 28, 2022	N/A	
Louisiana Integrated Polyethylene	PSD-LA-840	April 8, 2021	N/A	N/A
JV LLC	PSD-LA-840 (M1)	December 3, 2021	N/A	N/A

In written correspondence dated July 15, 2021, the Respondent reported an unauthorized release of ethylene from the West Cooling Tower (EQT0979 in 3170-V1/EQT0168 in PSD-LA-840/Y080-1001) to the atmosphere. Ethylene is a Volatile Organic Compound (VOC). The Respondent reported that the leak originated inside the acetylene reactor aftercooler, X050-3815, in the ETH2 Unit. The Respondent reported 32.59 tons or 65,180 pounds of ethylene was released over eleven (11) days, from June 29, 2021, until the unit was shutdown and the aftercooler was isolated on July 9, 2021.

The release was initially suspected on June 23, 2021, at the West Cooling Tower based on an intermittent lower explosive limit (LEL) alarm on the top of the tower. The West Cooling Tower is located in Utilities, Offsites, and Infrastructure (UOI) and it services a total of six (6) units, three (3) of which are owned and/or operated by the Respondent, the ETH2 Unit, LLDPE Unit, and the LDPE Unit. Each unit that is connected to the West Cooling Tower is equipped with a total organic carbon (TOC) monitor within their boundary limits on the cooling tower return and supply lines; those monitors were reading normal. Additionally, operations performed LEL monitoring with a hand-held LEL meter on the top of the tower and observed normal readings. The Respondent contracted a third party consultant to sample each unit's return line associated with the West Cooling Tower to determine if a leak was occurring. On June 29, 2021, ETH2 operations collected and analyzed samples at the facility's lab. The lab verified the presence of a leak in the acetylene reactor aftercooler, X050-3815; however, the lab was not able to quantify the leak. The Respondent assumed the release was from a small pin hole leak and that it would not exceed reportable quantity (RQ) for any of the constituents (Ethylene, Ethane, Methane, Hydrogen, and Propane) present in the heat exchanger. Additionally, the Respondent stated the leaking equipment would need to be isolated from the process in order to complete a repair and the Respondent believed that emissions associated with shutting down the unit would be greater than the potential emissions from delaying the

repair. On July 1, 2021, the Respondent contracted another third party consultant to quantify the leak. The consultant was not able to arrive onsite until July 8, 2021, at which time helium leak testing was performed.

On July 9, 2021, the Respondent received preliminary leak rate results from the consultant, indicating a leak rate of 400-500 pounds/hour (lbs./hr.) from the heat exchanger. ETH2 operations began shutting down the unit to repair the leak, and at approximately 9:47 PM on July 9, 2021, operations was able to stop the leak. The Respondent reported that the discharge was determined to not be preventable, due to the failure of a cooling water heat exchanger earlier than the useful life of the heat exchanger. The expected life should have been 8.3 years to reach half tube wall thickness and this heat exchanger had only been in service for approximately two (2) years. In correspondence dated June 9, 2023, the Respondent's representative stated the heat exchanger did not have any prior issues to the incident and did not undergo any preventative maintenance or inspections. Additionally, any required maintenance and inspections will be conducted during the next planned turnaround, which occurs approximately every ten (10) years.

On or about July 9, 2021, an incident inspection of the facility was performed to determine the degree of compliance with the Louisiana Environmental Quality Act (the Act) and the Air Quality Regulations. While the investigation by the Louisiana Department of Environmental Quality (the Department) is not yet complete, the following violations were noted during the course of the inspection:

- A. The Respondent exceeded the permitted VOC emission limits for the West Cooling Tower. Specifically, the Respondent reported an estimated ethylene release rate of 400-500 lbs./hr. from the exchanger, which exceeded the permitted 6.74 lb./hr. hourly maximum. Additionally, the estimated total amount of ethylene released from June 29, 2021 through July 9, 2021, was 32.59 tons, which exceeds the 29.52 tons per year (tpy) maximum for VOC emissions. Each exceedance of permit limits is a violation of Title V Air Permit No. 3170-V1 and PSD-LA-840, LAC 33:III.501.C.4, La. R.S. 30:2057(A)(1), and La. R.S. 30:2057(A)(2).
- B. The Respondent failed to accurately report actual VOC emissions in the 2021 Emissions Inventory. Specifically, the Respondent is subject to annual emissions inventory reporting pursuant to LAC 33:III.919. The Respondent submitted emissions inventory for reporting year 2021 on April 28, 2022, and revised emissions inventory on September 22, 2022. The Respondent reported 29.5212 tons of VOC emissions for the West Cooling Tower (EQT0168/Source ID SR5108/Release Point ID RP8012) in the Emissions Reporting and Inventory Center in both the original and revised submittals for reporting year 2021. In correspondence dated July 15, 2021, the Respondent reported an estimated 32.59 tons of ethylene were released from the West Cooling Tower to the atmosphere from June 29, 2021 through July 9, 2021. Pursuant to LAC 33:III.919.F.1.b. actual emissions shall be reported for all sources of emissions at a facility, including but not limited to, emissions from routine operations, General Condition XVII emissions, fugitive emissions, flash gas emissions, emissions from insignificant sources, emissions occurring during maintenance, start-ups, shutdowns, upsets, downtime, and emissions in excess of permit emission limitations, regardless of the amount. The failure to accurately report actual VOC emissions in the 2021 emissions inventory is a violation of Specific Requirement 311 of Title V Air Permit No. 3170-V1, LAC 33:III.919.F.1.b, LAC 33:III.501.C.4, and La, R.S. 30:2057(A)(2). On or about April 4, 2023, the Respondent submitted Revision No. 2 for

the 2021 Emissions Inventory, which accurately reported the VOC emissions for the 2021 reporting year.

On or about March 17, 2023, the Department conducted a file review to determine the degree of compliance with the Louisiana Environmental Quality Act (the Act) and the Air Quality Regulations. While the investigation by the Department is not yet complete, the following violations were noted during the course of the file review:

- A. The Respondent failed to use and diligently maintain air pollution control facilities, any device or contrivance, operating procedure or abatement scheme used to prevent or reduce air pollutants, in proper working order whenever any emissions are being made which can be controlled by the facility. Specifically, in written correspondence dated August 5, 2021, the Respondent reported an unauthorized discharge from the LDPE Unit of approximately 5,299.8 lbs. of ethylene between July 31, 2021, at 8:49 AM and August 2, 2021, at 8:11 AM. On or about August 2, 2021, at 8:10 AM, the LDPE Unit Regenerative Thermal Oxidizer (RTO) (EQT0648) was found bypassed and returned to service at 8:11 AM. The ethylene release was above the RQ (1,000 lbs.), and was caused by a control valve closing due to an instrument failure on a burst indicator for a rupture disk on baghouse D063-8100B. The RTO control system is designed to protect the burner chamber in the event of a system upset; consequently, the inlet valve closed and the bypass valve opened in response to the faulty indication. The control system is designed and permitted to allow bypassing the RTO for maintenance. The unauthorized discharge was determined to be preventable. This is a violation of Specific Requirement 106 of Title V Air Permit No 3113-V4, LAC 33:III.905.A. LAC 33:III.501.C.4. La. R.S. 30:2057(A)(1), and La. R.S. 30:2057(A)(2). As a corrective action, the Respondent has implemented measures including the RTO status to both the console and outside operator rounds. Additionally, the shift supervisor will confirm once per shift that the RTO is in operation, and a visual indicator has been added to the main screen of the operator console, which indicates the RTO status by changing colors (red/green) depending on the status.
- B. The Respondent failed to use and diligently maintain air pollution control facilities, any device or contrivance, operating procedure or abatement scheme used to prevent or reduce air pollutants, in proper working order whenever any emissions are being made which can be controlled by the facility. Specifically, on or about October 5, 2021, approximately 18 lbs. of 1, 3-Butadiene, a class II Toxic Air Pollutant (TAP), was released to the atmosphere from an opened liquid line flare valve located on WR#3 Mix C4 while the Respondent was loading the Mix C4 railcar. After approximately 25 minutes of the valve being open, the Respondent closed the valve. The failure to maintain the liquid line flare valve in the closed position while loading the Mix C4 railcar is a failure to use an air pollution control facility in proper working order whenever any emissions are being made which can be controlled by the facility, which is a violation of LAC 33:III.905.A, La. R.S. 30:2057(A)(1), and La. R.S. 30:2057(A)(2).

C. The Respondent reported the following opacity exceedances:

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00 m	2021 Title V First Semiannual Monitoring Report (9/28/2021)	3113-V4	EQT 0640/0001 (LPDE-2081- 2001) LDPE HP Multi- Point Ground Flare	3/5/2021 (10 minutes)	Particulate matter from this source shall be controlled so that the shade or appearance of the emission is not denser than 20 percent average opacity; except the emissions may have an average opacity in excess of 20 percent for not more than one sbe-minute period in any 60 consecutive minutes.	The LDPE Unit was undergoing a process upset due to a maifunction in the reactor. The Respondent determined that the steam valve did not open fast enough during the shutdown.	The Respondent added steam to the flare immediately. Additionally, a feed forward steam-assist control valve was added to the control scheme.	Specific Requirement No. 103 LAC 33:III.1311.C
2.	2021 Title V First Semiannual Monitoring Report (9/28/2021)	3113-V4	EQT 0540/0001 (LPDE-2081- 2001) LDPE HP Multi- Point Ground Flare	4/26/2021 (49 minutes)	Particulate matter from this source shall be controlled so that the shade or appearance of the emission is not denser than 20 percent average opacity; except the emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.	The LDPE Unit was undergoing an unanticipated shutdown when the flare began smoking due to a control equipment malfunction (a broken shear pin).	The Respondent replaced the shear pin immediately. Additionally, a change to the flare staging logic will be implemented in order to engage some of the high pressure stages earlier during a flaring event. A limit switch indicating closure status will be added to the control scheme.	Specific Requirement No. 103 LAC 33:III.1311.C
3.	2021 Title V First Semiannual Monitoring Report (9/28/2021)	3113-V4	EQT 0640/0001 (LPDE-Z081- 2001) LDPE HP Multi- Point Ground Flare	6/23/2021 {14 minutes}	Particulate matter from this source shall be controlled so that the shade or appearance of the emission is not denser than 20 percent average opacity; except the emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.	The LDPE Unit was undergoing an unanticipated shutdown when the flare began smoking due to a control equipment maifunction (a broken shear pin).	The Respondent replaced the shear pin immediately. Additionally, alternative shear pin technology will be implemented to reduce the likelihood of shear pin failures and improve the integrity of the flare staging. A limit switch indicating closure status will be added to the control scheme.	Specific Requirement No. 103 LAC33:III.1311.C
4	2021 Title V First Semiannual Monitoring Report (9/28/2021)	3118-V3	EQT 0094 (ETH2-Q081- 1000) Ethylene-2 Ground Flare Package	6/14/2021 (6 minutes 46 seconds)	Particulate matter from this source shall be controlled so that the shade or appearance of the emission is not denser than 20 percent average opacity; except the emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 50 consecutive minutes.	During correspondence via telephone on February 22, 2022, the Respondent's representative stated the malfunction was due to poor design of the flare, which did not allow for proper thermal growth, causing buckling and cracking.	The malfunctioning stage was isolated to stop the opacity event, and the ground flare design is under evaluation to identify potential improvements.	Specific Requirement No. 68 LAC 33:III.1311.C

5.	2021 Title V Second Semiannual Monitoring Report (3/29/2022)	3113-V4	EQT 0640/0001 (LPDE-2081- 2001) LDPE HP Multi- Point Ground Flare	8/17/2021 (10 minutes)	Particulate matter from this source shall be controlled so that the shade or appearance of the emission is not denset than 20 percent average opacity, except the emission may have an average opacity in excess of 20 percent for not more than one steminute period in any 50 consecutive minutes.	The LDPE Unit was undergoing an unanticipated shutdown when an opacity event occurred due to premature shearing of a broken shear pin on Stage 7.	Immediate measures were taken to end the event, and the shear pin was replaced as soon as possible. Additional DCS indication was added to all shear pin valves that will help increase operator response time if the valve opens but falls to open fully.	Specific Requirement No. 103 LAC 33:III.1311.C
6.	2021 Title V Second Semiannual Monitoring Report (3/29/2022)	3113-V4	EQT 0640/0001 (LPDE-2081- 2001) LDPE HP Multi- Point Ground Flare	9/17/2021 (27 minutes)	Particulate matter from this source shall be controlled so that the shade or appearance of the emission is not denser than 20 percent average opacity; except the emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.	The LDPE Unit was undergoing an unanticipated shutdown when an opacity event occurred due to premature shearing of a broken shear pin on Stage 8.	Immediate measures were taken to end the event, and the shear pin was replaced as soon as possible. Evaluation from the vendor on the pin design for Stage 8 pressure safety equipment found that a new pin with upgraded strength is recommended over the original design: A stronger pin for Stage 7 and 8 was implemented per vendor's evaluation results.	Specific Requirement No. 103 LAC 33:IJL3311.C
7.	2021 Title V Annual Compliance Certification (3/29/2022)	3116- V4AA	EQT 0064 LLPOE-GF- Multi-Point Ground Flare System	10/26/2021 (183 minutes)	Particulate matter from this source shall be controlled so that the shade or appearance of the emission is not denser than 20 percent average opacity; except the emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.	The LLDPE Unit was undergoing an unanticipated shutdown when the vent recovery compressor 2 rd stage suction valve falled. The vents that are normally routed to the vent recovery compressor were rerouted to the flare per design, which along with poor steam quality at the flare resulted in an opacity exceedance.	The vent recovery unit (VRU) started back up after repairing the machine. Additionally, during the most recent outage, permanent condensate drain orifices were added to the headers directly below the steam assist on the flare to ensure steam to the tips stay dry and steam is adequately distributed.	Specific Requirement 112 LAC 33:HI.1311.C
8.	2022 Title V First Semiannual Monitoring Report (9/26/2022)	3113- V4AA	EQT 0001 UPDE-GF- Multi-Point Ground Flare System	2/8/2022 (7 minutes 34 seconds)	Particulate matter from this source shall be controlled so that the shade or appearance of the emission is not denser than 20 percent average opacity; except the emissions may have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes.	During a minor flaring event, the Stage 7 shear pir failed prematurely, causing the ground flare to have an opacity event.	Operations immediately blocked-in Stage 7, replaced the shear pin, and placed Stage 7 back in service. A capital project was submitted to replace all the existing pins on the valves with the new recommended shear pins.	Specific Requirement No. 103 LAC 33:IH.1311.C

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9	2022 Title V First Semiannual Monitoring Report (9/26/2022)	3116-V5	EQT 0064 LLPDE-GF- Muffi-Point Ground Flare System	4/7/2022 (1 hour 55 minutes)	Particulate matter from this source shall be controlled so that the shade or appearance of the emission is not denser than 20 percent average opacity; except the emissions may have an average opacity in excess of 20 percent for not more than one sis-minute period in any 60 consecutive minutes.	The LLDPE Unit vent recovery compressor C-5206 tripped due to a high-level alarm on the low-pressure accumulator. The alarm was caused by resin blockage in the strainer to the pump, which caused a liquid level to build in the low-pressure accumulator, and once a high level was reached, the compressor tripped. The vents that typically route to the vent recovery unit were re-routed to the low-pressure ground flare per design, which resulted in opacity exceedance.	The unit lowered rates immediately, and the strainer to the pump was unclogged. Three VRU operations procedures were updated to include continuous cleaning of the strainer before the pump ran be turned on. The low-pressure ground flare system per design should account for additional vents from the VRU and is currently under engineering evaluation.	Specific Requirement 112 LAC 33:HI.1311.C
20.	2022 Title V First Semiannual Monhoring Report (9/26/2022)	311 6 - V 5	EQT 0064 LLPDE-GF- Multi-Point Ground Flare System	6/22/2022 (12 minutes)	Particulate matter from this source shall be controlled so that the shade or appearance of the emission is not denser than 20 percent average opacity; except the emissions may have an average opacity in excess of 20 percent for not more than one sb-minute period in any 60 consecutive minutes.	The LLDPE Unit vent recovery compressor C-5206 tripped due to a high-level accumulator. The high-level alarm was initiated due to a pump seal failure, which caused the level to build up in the high-pressure accumulator, resulting in the compressor trip. The vents that typically route to the vent recovery unit were rerouted to the low-pressure ground flare per design, which resulted in opacity exceedance.	The unit lowered rates immediately to end the event and the pump seal was fixed. The low-pressure ground flare system per design should account for additional vents from the VRU and is currently under engineering evaluation.	Specific Requirement 112 LAC 33:III.1311.C
11.	2022 Title V First Semiannual Monitoring Report (9/26/2022)	3118- V3AA	EQT 0094 (ETH2-Q081- 1000) Ethylene-2 Ground Flare Package	4/26/2022 (11 minutes 42 seconds)	Particulate matter from this source shall be controlled so shat the shade or appearance of the emission is not denser than 20 percent average opacity; except the emissions may have an average opacity in excess of 20 percent for not more than one ski-minute period in any 60 consecutive minutes.	During the startup of the Ethylene 2 Unit, the ground flare experienced an opacity exceedance for 11 minutes and 42 seconds due to an inadequate flare design.	The unit made efforts to stabilize operations as soon as possible to end the event. Ethylene 2 ground flare system design is currently under engineering evaluation to identify potential improvements.	Specific Requirement 68 LAC 33:HI.1311.C

Each opacity exceedance greater than twenty (20) percent for greater than six (6) minutes in 60 consecutive minutes is a violation of any applicable permit and associated requirement(s) listed

above, LAC 33:III.1311.C, LAC 33:III.501.C.4, La. R.S. 30:2057(A)(1), and La. R.S. 30:2057(A)(2).

D. The Respondent reported the following unauthorized discharges:

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1.	2021 Title V			1/10/2021 (3 hours)		231.6	The thermal oxidizer (TO) was offline due to the inlet fan tripping on a false high vibration alarm, resulting in the bypass. As a	Specific Requirement 106		
2.	Annual Compliance Certification (3/29/2022)	3113-V4	EQT 0648 LDPE-Q063- 8100	3/22/2021 (1 hour 33 minutes)	Ethylene	101	corrective action, the unit added distributed control system (DCS) logic that generates alarms status to help operator increase response time.	40 CFR 60.562-1(d) LAC 33:HL905.A		
э.	Correspondence dated 4/26/2022		Thermal Oxidizer	1/19/2021 (6 hours)	Ethylene	560.9	The TO was inadvertently bypassed during unit start up. As a corrective action, a Management of Change (MOC) was implemented to include a permissive that requires the TO to be online during an early step in the unit start-up sequence.	Specific Requirement 106 40 CFR 60.562-1(d) LAC33:HI.905.A		
4.	2021 Title V Annual	3113-V4	3113-V4	3113-V4		7/23/2021 (2 hours 51 minutes)		272.90	The TO went offline due to a failure in the burst sensors on the rupture disc, causing the safety	
5.	Compliance Certification		EQT 0648/EQT0004 LDPE-Q063-	8/10/2021 (27 minutes)	Ethylene	40.20	equipment to rupture prematurely, causing emissions to bypass the thermal oxidizer. As a corrective action, the TO alarm alert on the DCS was changed to high priority and an evaluation of the current burst sensor design is being conducted by the unit engineers and vendors.	Specific Requirement 106		
6.	(3/29/2022) Correspondence dated	3113-	8100 Thermal Oxidizer	12/28/2021 (3 hours 58 minutes)	<i>Differe</i>	327.50		40 CFR 60.562-1(d)		
7.	4/26/2022	V4AA		12/30/2021 (38 minutes)		52,30				
8.	2022 Title V First Semiannual Monitoring Report (9/25/2022) Electronic correspondence dated 3/14/2023	3113- V4AA	EQT 0004 LDPE-0063- 8100 Thermal Oxidizer	1/31/2022 (45 minutes)	Ethylene	87	The LDPE Unit discovered that the TO was bypassed due to an inlet fan motor trip, causing the TO to go offline. Immediate measures were taken to end the event by placing the TO back in operation as soon as possible. Verification of the variable frequency drive setting will ensure that the communication from the field is appropriately relayed to the DCS. In electronic correspondence dated 3/14/2023, a representative of the Respondent reported 87 lbs. of ethylene were released during this event, which exceeds the 3-52 lb./hour VOC permit limit.	Specific Requirement 106 40 CFR 60.562-1(d) LAC 33:III.905,A		

Each unauthorized discharge is a violation of any applicable permit and associated requirement(s) listed above, LAC 33:III.501.C.4, La. R.S. 30:2057(A)(1), and La. R.S. 30:2057(A)(2).

E. The Respondent reported the following violations of permitted operating parameters:

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1.	2021 Title V Annual Compliance	3170-V1	EQT 0168 UOI-Y080- 1001	January 2021	Monitor cooling water in each liest exchanger system for the HAP(s) listed in 40 CFR 63	ETH2 Unit inadvertently missed the required	The internal lab will maintain blank chain of custody forms in the event that the certified lab doesn't provide a populated one. In addition, the cooling water samples were added to	Specific Requirement 61
2.	Certification (3/29/2022)		West Cooling Tower	August 2021	Subpart XX Table 1 using any method fisted in 40 CFR 136.	monthly cooling water sample.	the site lab system (LIMS) so that a preprinted label will be available for the lab to scan to ensure proper sample tracking.	40 CFR 63.1086(a)
3.	2021 Title V Annual Compliance Certification (3/29/2022)	3116-V5	EQT 0064 LLDPE-GF- Multi Point Ground Flare system	12/11/2021 (21 minutes)	Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.	The LLDPE Unit high pressure (HP) flare and low pressure (LP) flare pilots lost flame pressure. The natural gas flow and pressure increased, causing the natural gas valve to close, which extinguished the flame. The Respondent reported 683 ibs. of methane were released to the atmosphere as a result of this event.	As a corrective action, the data collection rates on all instruments on the natural gas header were decreased from ten (10) seconds to one (1) second to ensure that proper data resolution will be available. Additionally, slower ramp rates were added to the supplemental natural gas lines to the LP and HP flare to help reduce overall impact on the natural gas header by preventing them from opening or closing too rapidly.	Specific Requirement 75 40 CFR 63.11(b)(5)
4.	2022 Title V First Semiannual Monitoring Report (9/26/2022)	3118- V3AA	EQT0094 ETH2-Q081- 1000 Ethylene-2 Ground Flare Package	4/27/2022 (3 hours)	Heat content >≖ 300 British Thermal Units (BTU)/scf	On 4/27/22, during the startup of the Ethylene 2 Unit, the DCS BTU controller inadvertently switched to manual mode with a set point of zero BTU/scf. The heating value on the low-pressure flare dropsped below the required 300 BTU/scf limit for one 3-hour period.	Upon discovery, Operations placed the BTU controller valve into automatic mode to resume automatic BTU control. The manual BTU controller DCS setpoint was adjusted to 350 BTU/scf. Additionally, an environmental critical alarm was assigned to this setpoint, in electronic correspondence dated 3/14/2023, a representative of the Respondent stated there were no excess emissions during this event. Additionally, Title V Permit No. 3118-V3AA specific requirements 21 and 41 specify a minimum heat content of 200 BTU/scf; however, a representative of the Respondent stated that the flare is steam-assisted with a minimum heat content of 300 BTU/scf. The Respondent stated, a request for the correction for specific requirements to reflect the flare's applicability will occur during the permit renewal process.	Specific Requirement 21 40 CFR 60.18(c)(3)(ii) and 40 CFR 63.11(b)(6)(ii)

Each failure to operate according to permitted requirements is a violation of any applicable permit and associated requirement(s) listed above, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).

F. The Respondent reported the following violations of CAPP requirements:

1.	2021 Title V Arinual Compliance Certification (3/29/2022)	3118- V3AA	UNF 0003 ETH2 Unit	11/24/2021	The owner/operator shall perform a pre-startup safety review for new stationary sources and for modified stationary sources when the modification is significant enough to require a change in the process safety information.	ETH2 Unit inadvertently falled to perform a pre-startup safety review for two (2) modified stationary sources (Selective Catalytic Reduction Equipment A and B).	An emergency work order was in place to change out the failed bearings on the Selective Catalytic Reduction Equipment A and B without a Management of Change (MOC) in place. The importance of a MOC during emergency maintenance work was discussed with site maintenance personnel. Additionally, the Process Safety Management Department is enhancing the site wide MOC computer-based training to include examples of changes that require a MOC, change approval, and startup approval.	Specific Requirement 171 40 CFR 68.77(a)
2.	2021 Title V			11/26/2021	The owner/operator shall perform a pre-startup safety review for new stationary sources and	During an unplanned outage, the LDPE Unit maintenance inadvertently failed to perform a pre-startup safety review of the secondary compressor tubing replacement. The tubing was replaced without a MOC in place.	Training will be conducted with all maintenance personnel on the MOC process.	Specific Requirement 186
ą.	Compliance Certification (3/29/2022)	Annual Compliance Certification (3/29/2022) UNF 0001 — LDPE Unit	12/7/2021	for modified stationary sources when the modification is significant enough to require a change in the process safety information.	The LDPE Unit observed during the daily safety walk that a crane vendor inadvertently failed to perform a pre-startup safety review on an overhead crane pendant modification. The pendant was changed without a MOC in place.	The importance of the MOC was discussed with the vendor and LyondellBasell Industries N.V. purchasing filed a non-conformance with the vendor. Maintenance implemented a process verification on the scope of work performed outside of normal working hours by vendors.	40 CFR 68.77(a)	

						On 3/4/22, at		
4	2022 Title V First Semiannual Monitoring Report (9/26/2022) T 207565 Written Notification dated 3/10/2022	3113. VAA	UNF0001 LDPE-Low Density Polyethylene Unit	3/4/22	The owner or operator shall assure that maintenance materials, spare parts, and equipment are suitable for the process application for which they will be used.	approximately 5:43AM during a controlled unit shutdown, an ethylene release occurred from the reactor pressure control valve located on the Tubular Reactor. The amount of ethylene released from the event was 5,092 pounds, which exceeded the reportable quantity. The appropriate agencies were notified of the exceedance. In addition, the sevenday follow-up letter was submitted to LDEQ on 3/10/2022 (Report # 22-01181), it was later determined that the correct boits and washers on the reactor pressure control valve flange were not installed per design specifications during construction.	Immediately the unit began depressurizing the system to the LDPE high-pressure multi-point ground flare and activating the deluge system to suppress the ethylene vapor. All associated equipment was shut down, isolated, and purged with nitrogen. The maintenance department installed the correct bolts and washers on the reactor pressure control valve flange. Additionally, the execution of a reactor pressure control valve checklist for valve installation, post-installation inspections, and valve removal will be introduced.	Specific Requirement 186 40 CFR 68.73(f)

Each failure to operate according to permitted requirements is a violation of any applicable permit and associated requirement(s) listed above, LAC 33:III.501.C.4, and La. R.S. 30:2057(A)(2).

G. The Respondent reported the following violations of monitoring requirements:

2022 Title V First Semiannual Monitoring Report (9/26/2022)	3116-V5	FUGO002 LLDPE-FUG LLDPE Unit Fugitives	4/2022 - 6/2022	Comply with the requirements of 40 FR 63 Subpart H or UU and the requirements referenced therein, except as specified in 40 CFR 63.2480 (b) — (d).	At the beginning of the 3rd quarter, it was discovered that the required 2rd quarter monitoring for 18 insulated components were missed. The new LDAR contractor monitoring team did not recognize that the requirements for insulated valves were different than insulated connectors, which are only required to be monitored annually. The 18 insulated valves missed were monitored in the following quarter. The LDAR contractor has updated the quarterly close-out procedure to include a close-out meeting before the end of the monitoring period to verify all required components were monitored. In addition, the facility is undergoing a 2 year revalidation effort to ensure all components are captured and properly classified in the LDAR database.	Specific Requirement 115 40 CFR 63.2480(a)

2.	2022 Title V First Semiannual Monitoring Report (9/26/2022)	3118- V3AA	FUGODO3 ETH2-FE-1- Ethylene 2 Plant Process Fugitives	2 nd Quarter 2022	Comply with the requirements of 40 CFR 63 Subpart UU. Subpart YY.	At the beginning of the 3 rd quarter, it was discovered that the required 2 rd quarter monitoring for 49 valves were missed. 41 valves were insulated and 8 valves were misclassified in the LDAR database as insulated. The new LDAR contractor monitoring team did not recognize that the requirements for insulated valves were different than insulated connectors, which are only required to be monitored annually. The 49 valves missed were monitored in the following quarter. The LDAR contractor has updated the quarterly close-out procedure to include a close-out meeting before the end of the monitoring period to verify all required components were monitored. In addition, the facility is undergoing a 2 year revalidation effort to ensure all components are captured and properly classified in the LDAR database.	Specific Requirement 108 40 CFR 63.1103(e)(3)
3.	2022 Title V First Semiannual Monitoring Report (9/26/2022) Electronic correspondenc e dated 3/14/2023	3118- V3AA	FUG0003 ETH2-FE-1- Ethylene 2 Plant Process Fugitives	1 ⁴ and 2 rd Quarter 2022	Comply with the requirements of 40 CFR 63 Subpart UU. Subpart YY.	On 8/10/2022, during field validation, it was discovered that the required first and second quarter monitoring for 24 valve components were missed. The valves were classified incorrectly in the LDAR database as closed vent systems, which are monitored annually. The valves are in light liquid service and should be monitored quarterly. The valve classifications and monitoring frequencies were corrected in the LDAR database. In electronic correspondence dated 3/14/2023, a representative of the Respondent stated that the components were monitored on 8/17/2022. The LDAR contractor team is verifying all descriptions, parts, streams, tagging, and drawing numbers of all valves, pumps, compressors, and pressure relief devices in the LDAR database with the provided piping and instrumentation diagrams. In addition, the facility is undergoing a 2 year revalidation effort to ensure all components are captured and properly classified in the LDAR database.	Specific Requirement 108 40 CFR 63.1103(e)(3)

Each failure to monitor as required is a violation of any applicable permit and associated requirement(s) listed above, LAC 33:III.501.C.4, La. R.S. 30:2057(A)(1), and La. R.S. 30:2057(A)(2).

Pursuant to La. R.S. 30:2050.3(B), you are hereby notified that the issuance of a penalty assessment is being considered for the violation(s) described herein. Written comments may be filed regarding the violation(s) and the contemplated penalty. If you elect to submit comments, it is requested that they be submitted within ten (10) days of receipt of this notice.

Prior to the issuance of any additional appropriate enforcement action, you may request a meeting with the Department to present any mitigating circumstances concerning the violation(s). If you would like to have such a meeting, please contact Courtney Tolbert at 225-219-3347 or courtney.tolbert@la.gov within ten (10) days of receipt of this NOTICE OF POTENTIAL PENALTY.

The Department is required by La. R.S. 30:2025(E)(3)(a) to consider the gross revenues of the Respondent and the monetary benefits of noncompliance in order to determine whether a penalty will be assessed and the amount of such penalty. Please forward the Respondent's most current annual gross revenue statement along with a statement of the monetary benefits of noncompliance for the cited violations to the above named contact person within ten (10) days of receipt of this NOTICE OF POTENTIAL PENALTY. Include with your statement of monetary benefits the method(s) you utilized to arrive at the sum. If you assert that no monetary benefits have been gained, you are to fully justify this statement. If the Respondent chooses not to submit the requested most current annual gross revenues statement within ten (10) days, it will be viewed by the Department as an admission that the Respondent has the ability to pay the statutory maximum penalty as outlined in La. R.S. 30:2025.

For each violation described herein, the Department reserves the right to seek civil penalties and the right to seek compliance with its rules and regulations in any manner allowed by law, and nothing herein shall be construed to preclude the right to seek such penalties and compliance.

The Department assesses civil penalties based on LAC 33:I.Subpart1.Chapter 7. To expedite closure of this NOTICE OF POTENTIAL PENALTY, the Respondent may offer a settlement amount to resolve any claim for civil penalties for the violation(s) described herein. The Respondent may offer a settlement amount, but the Department is under no obligation to enter into settlement negotiations. The decision to proceed with a settlement is at the discretion of the Department. The settlement offer amount may be entered on the attached "NOTICE OF POTENTIAL PENALTY REQUEST TO SETTLE" form. The Respondent may submit the settlement offer within one hundred and eighty (180) days of receipt of this NOTICE OF POTENTIAL PENALTY. The Respondent must include a justification of the offer. DO NOT submit payment of the offer amount with the form. The Department will review the settlement offer and notify the Respondent as to whether the offer is or is not accepted.

To reduce document handling, please refer to the Enforcement Tracking Number and Agency Interest Number on the front of this document on all correspondence in response to this action.

Sincerely.

Celena J. Cage

Assistant Secretary

Office of Environmental Compliance

CJC/CJT/cjt Alt ID No. 0520-00514

c: Louisiana Integrated Polyethylene JV LLC c/o Anthony Wood 2201 Old Spanish Trail Westlake, LA 70669

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

OFFICE OF ENVIRONMENTAL COMPLIANCE

ENFORCEMENT DIVISION

Attn: Courtney Tolbert

NOTICE OF POTENTIAL PENALTY
REQUEST TO SETTLE (OPTIONAL)

SEO DEO

BATON ROUGE, LOUISIANA		ezi in se i ireî	ur iivimi)	LOUISIAN	
Enforcement Tracking No.	AE-PP-22-00129		Contact Name	Courtney Tolbert	
Agency Interest (AI) No.	226602		Contact Phone No.	225-219-3347	
Alternate ID No.	0520-00514				
Respondent:	Louislana integral	ted Polyethylene Facility Name:		Louisiana Integrated Polyethylene JV	
	c/o C T Corporation		Physical Location:	2201 Old Spanish Trail	
	3867 Plaza Tower			Westlake, LA 70669	
	Baton Rouge, LA 70816		Parish:	Calcasieu	
The first transfer of the second seco		(check the app	licable option)		
Department has the In order to resolve Respondent is inter	right to assess civil p any claim for civil p ested in entering into	enalties based on L enalties for the vi	AC 33:I.Subpart1.Chapte olations in NOTICE OF I	Department with the understanding that the 17. POTENTIAL PENALTY (AE-PP-22-00129), the ment and would like to set up a meeting to	
		ment offer within	one hundred and eight	y (180) days of receipt of this NOTICE OF	
DO NOT SUBI	mponent = vironmental Project (E	BEP)component (or OFFER WITH THIS	\$ otional)= \$ FORM- the Department v	netary benefit of non-compliance. will review the settlement offer and notify the	
			TICE OF POTENTIAL PEN ded in settlement offer.	ALTY (AE-PP-22-00129) and has attached a	
information and belief formare true, accurate, and com	ed after reasonable in plete. I also certify th	iquiry, the stateme at I do not owe ou	ents and information att Istanding fees or penalt	alties for false statements, that based on ached and the compliance statement above, les to the Department for this facility or any ized representative of the Respondent.	
Respondent's Signature		Respondent's Printed Name		Respondent's Title	
	•				
Respondent's Physical Address		Res	oondent's Phone #	Date	
	MAIL COMPL	ETED DOCUME	NT TO THE ADDRESS	BELOW:	
Louisiana Department of Env Office of Environmental Com Enforcement Division P.O. Box 4312 Baton Rouge, LA 70821			,		

WHAT IS A SETTLEMENT AGREEMENT?

Once the Department has determined that a penalty is warranted for a violation, the Assistant Secretary of the Department, with the concurrence of the Attorney General, may enter into a settlement agreement with the Respondent as a means to resolve the Department's claim for a penalty.

HOW DOES THE SETTLEMENT AGREEMENT PROCESS WORK?

To begin the settlement agreement process, the Department must receive a written settlement offer. Once this offer is submitted, it is sent for approval by the Assistant Secretary of the Office of Environmental Compliance. The formal Settlement Agreement is drafted and sent to the Attorney General's office where the Attorney General has a 90 day concurrence period. During this time, the Respondent is required to run a public notice in an official journal and/or newspaper of general circulation in each affected parish. After which, a 45 day public comment period is opened to allow the public to submit comments. Once the Department has received concurrence, the settlement agreement is signed by both parties. The Department then forwards a letter to the responsible party to establish a payment plan and/or beneficial environmental project (BEP).

WHAT SHOULD I INCLUDE IN A SETTLEMENT AGREEMENT?

The Department uses the penalty determination method defined in LAC 33:1.705 as a guideline to accepting settlement offers. The penalty matrix is used to determine a penalty range for each violation based on the two violation specific factors, the nature and gravity of the violation and the degree of risk/impact to human health and property.

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IMPACT H OR	and the second	\$32,500 to \$20,000	\$20,000 to \$15,000	\$15,000 to \$11,000
E OF RISK OR IUMAN HEALT PROPERTY	WORKE.	\$11,000 to \$8,000	\$8,000 to \$5,000	\$5,000 to \$3,000
DEGREE (TO HUI	JINOR	\$3,000 to \$1,500	\$1,500 to \$500	\$500 to \$100

Degree of Risk to Human Health or Property

Major: (actual measurable harm or substantial risk of harm) A violation of major impact to an environmental resource or a hazard characterized by high volume and/or frequent occurrence and/or high pollutant concentration.

Moderate: (potential for measurable detrimental impact) A violation of moderate impact and hazard may be one characterized by occasional occurrence and/or pollutant concentration that may be expected to have a detrimental effect under certain conditions

Minor; (no harm or risk of harm) A violation of minor impact are isolated single incidences and that cause no measurable detrimental effect or are administrative in nature.

Nature and Gravity of the Violation

Major: Violations of statutes, regulations, orders, permit limits, or permit requirements that result in negating the intent of the requirement to such an extent that little or no implementation of requirements occurred.

Moderate: Violations that result in substantially negating the intent of the requirements, but some implementation of the requirements. Minor: Violations that result in some deviation from the intent of the requirement, however, substantial implementation is demonstrated.

The range is adjusted using the following violator specific factors:

- 1. history of previous violations or repeated noncompliance;
- 2. gross revenues generated by the respondent;
- 3. degree of culpability, recalcitrance, defiance, or indifference to regulations or orders;
- 4. whether the Respondent has failed to mitigate or to make a reasonable attempt to mitigate the damages caused by the violation; and
- whether the violation and the surrounding circumstances were immediately reported to the department, and whether the violation was concealed or there was an attempt to conceal by the Respondent.



Given the previous information, the following formula is used to obtain a penalty amount.

Penalty Event Total = Penalty Event Minimum + (Adjustment Percentage x [Penalty Event Maximum - Penalty Event Minimum])

After this, the Department adds any monetary benefit of noncompliance to the penalty event. In the event that a monetary benefit is gained due to the delay of a cost that is ultimately paid, the Department adds the applicable judicial interest. Finally, the Department adds all response costs including, but not limited to, the cost of conducting inspections, and the staff time devoted to the preparation of reports and Issuing enforcement actions.

WHAT IS A BEP?

A BEP is a project that provides for environmental mitigation which the respondent is not otherwise legally required to perform, but which the defendant/respondent agrees to undertake as a component of the settlement agreement.

Project categories for BEPs include public health, pollution prevention, pollution reduction, environmental restoration and protection, assessments and audits, environmental compliance promotion, and emergency planning, preparedness and response. Other projects may be considered if the Department determines that these projects have environmental merit and is otherwise fully consistent with the intent of the BEP regulations.

WHAT HAPPENS IF MY OFFER IS REJECTED?

If an offer is rejected by the Assistant Secretary, the Legal Division will contact the responsible party, or anyone designated as an appropriate contact in the settlement offer, to discuss any discrepancies.

WHERE CAN I FIND EXAMPLES AND MORE INFORMATION?

Settlement Offers	searchable in <u>EDMS</u> using the following filters
Settlement Agreements	Media: Air Quality, Function: Enforcement: Description: Settlement
Penalty Determination Method	specific examples can be provided upon request
Beneficial Environmental Projects	LAC 33:1 Chapter 25
	FAQs provided by the Louisiana State Bar Association

