St. Bernard Parish SO_2 Nonattainment Area Louisiana State Implementation Plan Revision

Submitted to:

EPA Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Proposal April 1, 2015

BOBBY JINDAL
GOVERNOR

PEGGY M. HATCH
SECRETARY

State of Louisiana

DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF THE SECRETARY

April 1, 2015

Mr. Ron Curry
Regional Administrator
EPA Region VI (6RA)
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202

RE: Draft St. Bernard Parish SO_2 State Implementation Plan and Attainment Demonstration

Dear Mr. Curry:

The Louisiana Department of Environmental Quality hereby submits the enclosed draft revision to the State Implementation Plan (SIP) to address the St. Bernard SO_2 Nonattainment Area.

A public hearing on the SIP revision will be held at 6:00 p.m. on May 21, 2015, at the St. Bernard Government Council Chambers, located at 8201 West Judge Perez Drive in Chalmette, Louisiana.

Written comments on the draft SIP should be directed to:

Cheryl S. Nolan
Administrator, Air Permits Division
P.O. Box 4313
Baton Rouge, Louisiana 70821-4313

Should you have any questions, please contact Vivian H. Aucoin of the Air Permits Division at (225) 219-3482 or at vivian.aucoin@la.gov.

Sincerely,

Peggy M. Hatch
Secretary

Enclosure

PMH:VHA

TABLE OF CONTENTS

SECTION 1: GENERAL 1
1.1 Background and Introduction 1
1.1.1 Purpose 1
1.1.2 Sulfur Dioxide 1
1.1.3 SO_2 National Ambient Air Quality Standard 1
1.2 SO_2 Designations 2
1.3 Geographic Location/Area Description 3
1.4 Legal Authority 3
1.5 Public Notice 3
SECTION 2: Emission Inventory 4
2.1 Overview 4
2.2 Point Sources 6
2.3 Nonpoint and Mobile Sources 6
2.4 Emissions Projections 7
SECTION 3: Model Analysis and Attainment Demonstration 7
SECTION 4: Ambient Air Quality Monitoring Network 9
SECTION 5: Reasonably Available Control Technology (RACT) 10
5.1 Summary 10
5.2 RACT Discussion 10
SECTION 6: Reasonable Further Progress (RFP) 13
SECTION 7: New Source Review (NSR) Permit Program 13
SECTION 8: Contingency Measures 14

APPENDICES

APPENDIX A: Public Notice Documents 17
Notification to the Louisiana Register 18
Notification to The Advocate 20
Notification to the St. Bernard Voice 23
APPENDIX B: Emissions Inventory 26
Louisiana Emission Inventory – St. Bernard Parish (By Year) 27
2011 NEI Emissions – St. Bernard Parish 28
APPENDIX C: SO_2 Modeling 29
Modeling Protocol 30
Technical Support Document 39
AERMOD Source Inputs 48
APPENDIX D: AQ 327 52
Public Notice Documentation 53
Rule Text 65
Public Hearing Transcript 73
APPENDIX E: Rain Draft AOC 87

SECTION 1: GENERAL

1.1 Background and Introduction

1.1.1 Purpose

In accordance with Sections 172 and 191-192 of the Clean Air Act (CAA), this submission constitutes the Louisiana Department of Environmental Quality's (LDEQ's) State Implementation Plan (SIP) providing for the attainment and maintenance of the 1-hour sulfur dioxide (SO_2) national ambient air quality standard (NAAQS) in St. Bernard Parish, Louisiana. St. Bernard Parish was designated as an SO_2 nonattainment area, effective October 4, 2013.[1] Compliance with the 1-hour standard must be achieved as expeditiously as practicable, but by no later than October 4, 2018.

1.1.2 Sulfur Dioxide

Sulfur dioxide, or SO_2, is regulated as a criteria pollutant by the U.S. Environmental Protection Agency (EPA). Anthropogenic SO_2 emissions originate chiefly from point sources, with fossil fuel combustion at electric utilities (~66%) and other industrial facilities (~29%) accounting for the majority of total emissions. Other anthropogenic sources of SO_2 include the extraction of metal from ore, as well as the burning of sulfur-containing fuels by locomotives, large ships, and equipment utilizing diesel engines.[2] Natural sources of SO_2 include volcanic activity and forest fires and are not a primary concern for the area in question.

1.1.3 SO_2 National Ambient Air Quality Standard

Section 109(d)(1) of the CAA requires EPA to periodically review the air quality criteria published under section 108 and the NAAQS promulgated under section 109 and to revise such criteria and standards as appropriate. On June 2, 2010, EPA revised the primary SO_2 NAAQS by establishing a new 1-hour standard at a level of 75 parts per billion (ppb) in order protect public health with an adequate margin of safety. The 75 ppb standard was promulgated on June 22, 2010, and became effective on August 23, 2010.[3] Compliance is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations, as determined in

[1] 78 FR 47191, August 5, 2013
[2] 75 FR 35524
[3] 75 FR 35520

accordance with Appendix T of 40 CFR Part 50 (*see* 40 CFR 50.17(b)). At the same time, EPA revoked the two prior primary standards of 140 ppb, evaluated over a 24-hour period, and 30 ppb, evaluated over an annual period, promulgated on April 30, 1971 (36 FR 8187) (*see* 40 CFR 50.4).

1.2 SO_2 Designations

Louisiana has historically been in compliance with the SO_2 NAAQS. EPA first designated Louisiana's three air quality control regions as "Better than National Standards" for SO_2 relative to the 1971 standards described above (*see* 40 CFR 81.319). With respect to the 1-hour SO_2 NAAQS, LDEQ recommended that each parish be designated as "attainment" (areas that meet the standard), "nonattainment" (areas that do not meet the standard), or "unclassifiable" (areas that cannot be classified on the basis of available information as meeting or not meeting the standard) in accordance with Section 107(d)(1)(A) of the CAA by letter dated May 26, 2011. This submission recommended that 42 parishes be designated as attainment, 4 based on monitored data and the remaining 38 based on parish-wide SO_2 emissions. Additionally, 20 parishes were recommended as unclassifiable, and 2 parishes, St. Bernard and West Baton Rouge, were recommended as nonattainment.

On July 25, 2012, Louisiana submitted an updated recommendation to EPA containing additional monitoring data for West Baton Rouge Parish. This correspondence indicated that Louisiana expected the West Baton Rouge monitor to be compliant with the 1-hour SO_2 NAAQS at the end of 2012 and requested that EPA defer its designation of the area to allow for consideration of 2012 monitoring results. On January 10, 2013, LDEQ submitted the certified ambient concentration data and the quality assurance data for the West Baton Rouge monitor. As anticipated, the data showed that the area had attained the 1-hour SO_2 standard. EPA reviewed the data and concurred with the data certification.[4]

In accordance with Section 107(d)(1)(B) of the Act, EPA designated a single parish, St. Bernard, as nonattainment with the 1-hour SO_2 standard.[5]

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[4] "Draft Technical Support Document (TSD)," Ron Curry, Regional Administrator for Air and Radiation, to Peggy Hatch, LDEQ Secretary, February 7, 2013

[5] Designations are codified at 40 CFR 81.319.

1.3 Geographic Location/Area Description

Louisiana's designated nonattainment area for the 2010 SO_2 NAAQS is St. Bernard Parish, Louisiana. The U.S. Census Bureau's 2013 population estimate for St. Bernard Parish is 42,482.[6] The parish has a total area of 2155.2 square miles, with 377.5 square miles of land area and 1777.7 square miles of water.[7]

Established in 1807, St. Bernard Parish is home to businesses such as Winn Dixie Louisiana, Inc., Valero Refining Company-Louisiana (Valero Refining), Domino Sugar, Rain CII Carbon LLC (Rain), and Chalmette Refining, L.L.C. (Chalmette Refining). The parish also offers many historical attractions such as the Chalmette National Historical Park, the Beauregard House Museum, and the Chalmette National Military Cemetery.

1.4 Legal Authority

The Louisiana Environmental Quality Act, La. R.S. 30:2001, et seq. (the Act), grants the secretary of LDEQ specific authority to adopt, amend, or repeal those rules and regulations that are necessary for the protection of the state's environment. Further, the Act provides the secretary with the general power to assure compliance with applicable federal laws and regulations and to assume authority for those delegated programs that exist under the provisions of the CAA. On February 22, 2010, Governor Bobby Jindal appointed Peggy M. Hatch, Secretary of LDEQ, as his designee to submit documents to EPA for approval and incorporation into Louisiana's SIP.

1.5 Public Notice

In accordance with La. R.S. 49:950 et seq. and 40 CFR 51.285 (Public Notification), LDEQ will publish a notice seeking comment on this proposed SIP in the following publications:

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[6] "State & County Quick Facts" United States Census Bureau. Retrieved July 24, 2014.
[7] http://www2.census.gov/geo/docs/maps-data/data/gazetteer/2014_Gazetteer/2014_gaz_counties_22.txt

- *The Advocate* April 3 and April 10, 2015
- *St. Bernard Voice* April 3 and April 10, 2015
- *Louisiana Register* April 20, 2015

A public hearing concerning this proposed SIP is scheduled for 6:00 p.m., Thursday, May 21, 2015, at the St. Bernard Government Council Chambers, located at 8201 West Judge Perez Drive, Chalmette, Louisiana 70043. The comment period will close at 4:30 p.m. on May 22, 2015.

A copy of this SIP revision may be viewed on April 6, 2015, on LDEQ's website;[8] at the St. Bernard Parish Library, 2600 Palmisano Boulevard, Chalmette, Louisiana 70043; and at LDEQ Headquarters, 602 North 5th Street, Baton Rouge, Louisiana 70802.

SECTION 2: EMISSION INVENTORY

2.1 Overview

Pursuant to the CAA, emission inventories (EIs) of criteria pollutants must be submitted to the federal government for nonattainment areas. The EI is required to define the sources of the criteria pollutants, the amount of each pollutant emitted, and any processes or control devices utilized. With the collected information, baseline emission levels are established, modeling is performed, control strategies are developed, and reduction goals are calculated. The EI is divided into four categories described in further detail below: point, nonpoint, onroad mobile, and nonroad mobile.

Section 172(c)(3) states that plan provisions shall include a comprehensive, accurate, current inventory of actual emissions from all sources of the relevant pollutant or pollutants in such area, including periodic revisions as the Administrator may determine necessary to assure that the requirements of this part are met.

EIs must be prepared for SO_2 nonattainment areas in accordance with the Consolidated Emissions Reporting Rule[9] and the update to this rule, the Air Emission Reporting Requirements

[8] http://www.deq.louisiana.gov/apps/pubNotice/default.asp
[9] 67 FR 39602, June 10, 2002

(AERR) rule.[10] The Louisiana EI identifies the type of emission sources present in an area, the amount of each pollutant emitted, and the types of processes and control devices employed at each plant or source category. The EI provides data for a variety of air quality planning tasks, including:

- establishing baseline emission levels;
- calculating emission reduction targets;
- developing control strategy for achieving the required emission reduction;
- calculating emission inputs into air quality simulation models; and
- tracking actual emission reductions against the established emissions growth and control budgets.

Louisiana's EI is consistent with the EPA's most recent emission inventory data requirements as codified at 40 CFR Part 51, Subpart A and in accordance with the 1-hour SO_2 Nonattainment Area SIP submission guidance. Louisiana has included an accurate EI of current emissions for all sources of SO_2, point, nonpoint, onroad mobile, and nonroad mobile sources, in the nonattainment area. *See* Table 2.1.

Table 2.1 St. Bernard Parish Reporting in Tons per Year (TPY)

Year	Major Source	Nonpoint and Mobile Sources
2005	6182	1,124
2008	5700	832
2011	4893	706

As shown in the table, there has been a downward trend in both point source and nonpoint and mobile source emissions. Point source emissions have been reduced by approximately 20 percent and the nonpoint and mobile emissions have been reduced by approximately 37 percent since 2005.

[10] 73 FR 76539, December 17, 2008

2.2 Point Sources

The state of Louisiana compiles a statewide EI for point sources on an annual basis. The reporting requirements for the nonattainment areas are in accordance with those of the CAA Amendments of 1990, LAC 33:III.918 and 919 (Recordkeeping and Annual Reporting and Emissions Inventory). Actual measurement with continuous emissions monitoring systems (CEMS) or approved state testing is used for reporting of emissions from an emissions point when such data exists. In the absence of CEMS or stack testing data, emissions shall be calculated using methods found in the most recent edition of EPA's Compilation of Air Pollution Emission Factors (AP-42), calculations published in engineering journals, or EPA/LDEQ approved estimation methodologies. Accordingly, all facilities that emit or have the potential to emit 10 TPY must report.[11]

A list of point sources located in St. Bernard Parish is included in Appendix B.

2.3 Nonpoint and Mobile Sources

Nonpoint sources are a collection of many small, individually unidentified points of air pollution emissions within a specified geographical area. Stationary minor sources that are not included in the point source inventory are included in the area source categories. Typically, these area sources are too numerous or too small to be addressed individually. Area sources can be divided into two groups depending on the mechanism of emission.

- Hydrocarbon evaporative emissions consist of emissions caused by gasoline distribution (examples are vehicle refueling and the refilling of underground gasoline tanks at service stations), dry cleaning, degreasing, surface coatings, graphic arts, cutback and emulsified asphalt paving, pesticide application, commercial and consumer solvent use, waste management practices, commercial bakeries, and leaking underground storage tanks.
- Fuel combustion emissions consist of emissions caused by stationary external combustion (residential and commercial), forest fires, structural fires, and agricultural burning. Emission estimates for area sources are made at the local level using category specific emission factors

[11] LAC 33:III.919.A.2, Table 6 (Sulfur Dioxide (SO_2) Nonattainment Area and Adjoining Parishes: Emissions Threshold Values)

applied to per capita or per employee figures or other data, including gasoline consumption, cargo tonnage, agricultural land use, and housing statistics.

Onroad mobile vehicles are those light and heavy duty gasoline and diesel automobiles and trucks that travel primarily on public highways. Onroad mobile emissions estimates within the nonattainment areas were developed utilizing the EPA 2011 National Emission Inventory (NEI).

Nonroad mobile sources are often included as non-point sources because of the number and size of sources. Nonroad sources include but are not limited to, railroad locomotives, commercial marine vessels, farm equipment, recreational boating, and lawn equipment. The EPA's NONROAD 2008 model was used to generate Louisiana's statewide parish-level off-road equipment emissions estimates for 2011. Neither NONROAD nor EPA's National Mobile Inventory Model (NMIM) include emissions estimates for railroad locomotives, aircraft, and marine vessels (excluding maintenance equipment). Louisiana emissions for locomotives and aircraft were derived from the 2011 NEI.

2.4 Emissions Projections

Because St. Bernard Parish is an SO_2 nonattainment area, nonattainment new source review (NNSR) requires SO_2 increases from new major sources and major modifications to be offset at > 1.00 to 1 (see Section 7 for more information on permitting requirements). Therefore, the emissions estimate for 2018 point sources is based on FY 2013 emissions at 3,523 TPY; there is no tool available to grow SO_2 emissions.

Nonpoint and mobile emissions data was taken form NEI database. Emissions projections for nonpoint and mobile sources are based on the reductions established in 2005, 2008, and 2011; there is no tool used to project SO_2 emissions. Therefore, the emissions estimate for 2018 nonpoint and mobile sources is approximately 625 TPY.

SECTION 3: MODEL ANALYSIS AND ATTAINMENT DEMONSTRATION

LDEQ's Technical Support Document is included as Appendix C. This document discusses, among other things, the model selection, the modeling domain, emissions inputs, meteorological data, background concentrations, and model outputs and results. Guidance from

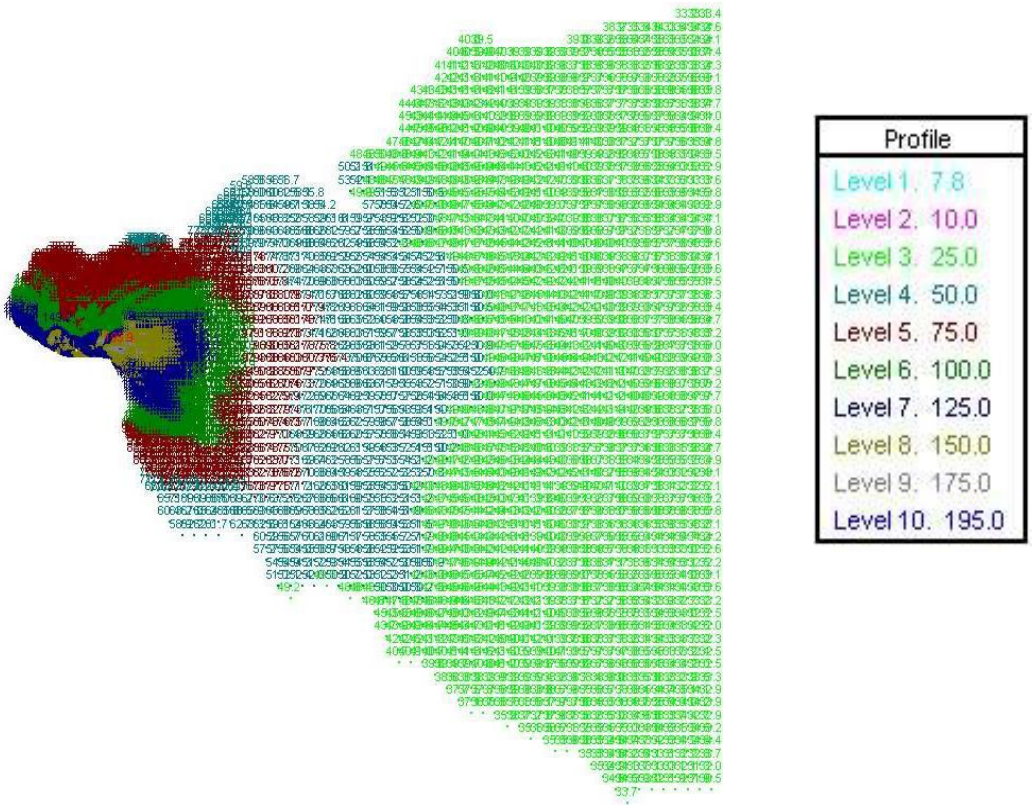
EPA indicated AERMOD should be used unless use of an alternative model could be justified. LDEQ used version 14134 of AERMOD for this demonstration; however, the following research should be considered:

- An evaluation of AERMOD done by EPA in 1998 states the AERMOD prediction bias exhibited on the Q-Q plots and in the RHC statistics shows an overall slight overprediction tendency.
- Research by Rood published in *Atmospheric Environment* in February 2014 suggests that CALPUFF performs better than AERMOD for 1-hour concentrations. The study determined that AERMOD has a strong positive bias and that puff models had nearly no bias.
- An evaluation of AERMOD by Frost and published in the *Journal of the Air & Waste Management Association* in March 2014 concludes that "a scientific evaluation examining hourly paired monitor and model values at concentrations of interest indicates overprediction and underprediction bias that is outside of acceptable model performance measures. Overprediction of 1-hr SO_2 concentrations by AERMOD presents major ramifications for state and local permitting authorities when establishing emission limits."

In the future, LDEQ will explore alternative modeling possibilities using CALPUFF. The department strongly urges EPA to consider this alternative in lieu of AERMOD as the model of choice for the second phase of the SO_2 standard implementation considering the potential wide-range impact that could result due overprediction of hourly SO_2 levels.

The highest total impact from the sources modeled coupled with the background contribution was 195.9µg/m^3(74.8ppb). The receptor at the violating monitor was modeled to be 149µg/m^3(57ppb). This modeled impact was based on Rain's waste heat boiler operated at a 900 lb/hr rate.

Image 3.1 Visual Representation of Modeling Results



SECTION 4: AMBIENT AIR QUALITY MONITORING NETWORK

Louisiana operates an approved air quality monitoring network in accordance with EPA regulations (40 CFR Part 58). The State monitors, compiles, and analyzes data for SO_2. The State submits to EPA an annual monitoring network plan that provides for the establishment and maintenance of air quality surveillance systems that consist of a network of monitoring stations. All ambient air quality data and associated quality assurance data is reported via the EPA Air Quality System (AQS). Louisiana has monitored for SO_2 since January 1, 1970, and has six (6) SO_2 monitors, listed in Table 4.1.

Table 4.1 Ambient Air Quality Monitors

	Site	Monitor ID	Sample Analysis Disc
1	Baton Rouge-Capitol	22-033-0009-42401-1	Ultraviolet Fluorescence
2	Chalmette Vista	22-087-0007-42401-1	Ultraviolet Fluorescence
3	Meraux	22-087-0004-42401-1	Ultraviolet Fluorescence
4	Shreveport Airport	22-015-0008-42401-1	Ultraviolet Fluorescence
5	Port Allen	22-121-0001-42401-1	Ultraviolet Fluorescence
6	Westlake	22-019-0008-42401-1	Ultraviolet Fluorescence

SECTION 5: REASONABLY AVAILABLE CONTROL TECHNOLOGY (RACT)

5.1 Summary

Section 172(c)(6) of the CAA requires that nonattainment area SIPs "include enforceable emission limitations, and such other control measures means or techniques….as well as schedules an timetable for compliance, as may be necessary or appropriate to provide for attainment of such standard in such area by the applicable attainment date specified in the part," namely October 4, 2018. Additionally, EPA expressed that a state could reject certain measures as not reasonably available for various reasons related to local conditions. Based on a review and analysis of emission reductions from reasonably available control technologies, RACT will provide the necessary emission reductions to attain the SO_2 NAAQS.

5.2 RACT Discussion

On June 20, 2013, LDEQ entered into an Administrative Order and Consent Agreement with Rain.[12] This document describes two primary measures intended to mitigate and improve the dispersion of SO_2 emissions from Rain's Chalmette Coke Plant. More specifically, Rain agreed to:

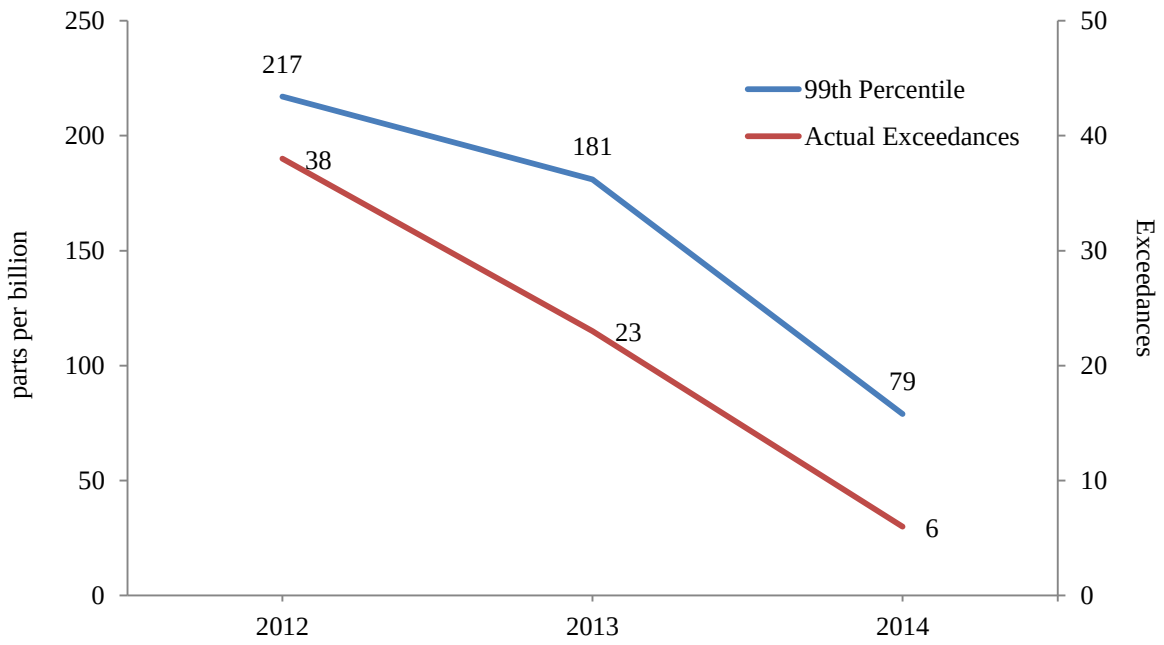
- replace the existing stack for the Waste Heat Boiler/Baghouse (EQT 0003) with a new stack with a height of approximately 199 feet;[13] and

[12] AE-AOA-13-00490 (EDMS Doc ID 8895595)
[13] The height of the original stack was 129 feet.

- immediately reduce the total amount of SO_2 emitted from the Waste Heat Boiler/Baghouse (EQT 0003) and the Pyroscrubber Stack (EQT 0004) to equal to or less than 1200 pounds per hour (lb/hr) (3-hour rolling average).

The Waste Heat Boiler/Baghouse began venting through the new stack on October 10, 2013.[14] As evidenced below, the impact of these measures has had an incontrovertibly positive impact on observed SO_2 concentrations at the Chalmette Vista and Meraux monitors.

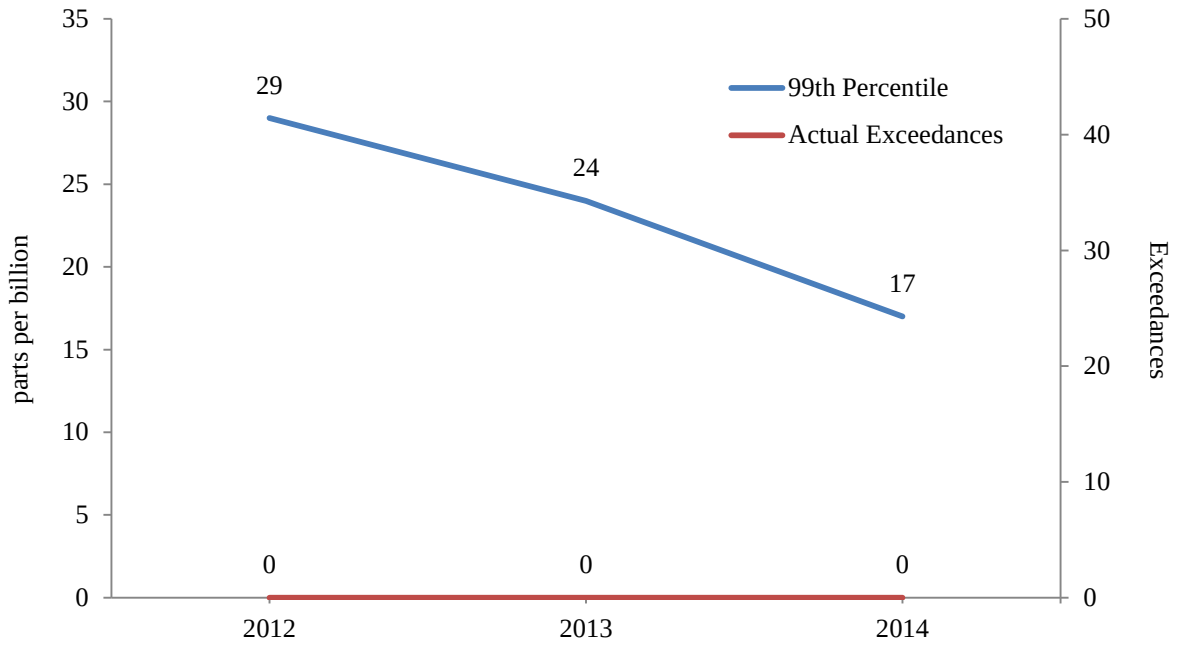
Chart 5.2.1 Chalmette Vista Monitor



	First Max	Second Max	99th Percentile	Actual Exceedances
2012	242	240	217	38
2013	325	251	181	23
2014	112	108	79	6

[14] EDMS Doc ID 9062721

Chart 5.2.2 Meraux Monitor



	First Max	Second Max	99th Percentile	Actual Exceedances
2012	59	44	29	0
2013	33	29	24	0
2014	34	18	17	0

During normal operations, gases exiting the coke kiln at the Chalmette Coke Plant are routed through the waste heat boiler and treated with hydrated lime in a baghouse for SO_3 removal and to control the potential formation of a visible plume before being discharged to the atmosphere. A small reduction in SO_2 emissions due to the lime injection is also possible.

In 2014, daily average SO_2 emissions from the Chalmette Coke Plant totaled 925 lb/hr.[15] Maximum hourly SO_2 emissions averaged 1060 lb/hr, with a high of 1494 lb/hr.

Rain plans to replace the current lime injection system with an SO_2 scrubber and baghouse in order to facilitate compliance with the 1-hour SO_2 NAAQS. An SO_2 scrubber is a flue gas desulfurization technology in which the calcium in limestone reacts with SO_2 in the flue gas. The reaction of SO_2 with limestone forms calcium sulfate, also known as synthetic gypsum,

[15] Days during which the facility was not fully operational were discounted.

which is recovered in the baghouse and can be used in the manufacture of wallboard and cement and as a soil amendment in agricultural and construction applications.

Permission to construct the SO_2 scrubber and baghouse was provided via an Authorization to Construct issued on June 20, 2014.[16] Operation and performance of the control equipment will be prescribed by a second Administrative Order and Consent Agreement or similar enforcement instrument and submitted to EPA with the final SO_2 SIP. A draft of this document is included as Appendix E and will limit SO_2 emissions to 900 lbs/hr.

Finally, other sources in the general area should experience SO_2 reductions through the implementation of federal programs, such as Tier 3 vehicle emission and fuel standards beginning in 2017.

SECTION 6: REASONABLE FURTHER PROGRESS (RFP)

In accordance with Section 171(1) of the CAA, "RFP is such annual incremental reductions in emission of the relevant air pollutant as are required by Subpart D or may reasonably be required by the EPA for the purpose of ensuring attainment of the applicable NAAQS by the October 4, 2018 attainment date."

EPA, in its 1-hour SO_2 Nonattainment Area SIP guidance, stated that "this definition is more appropriate for pollutants that are emitted by numerous and diverse sources, where the relationship between any individual source and the overall air quality is not explicitly quantified and where emission reductions are necessary to attain the NAAQS are inventory-wide."[17] This is not the case with SO_2. Consistent with EPA's guidance, it is only necessary to ensure that the affected facilities implement appropriate control measures as quickly as possible to ensure attainment of the standard by the attainment date.

SECTION 7: NEW SOURCE REVIEW (NSR) PERMIT PROGRAM

The nonattainment new source review (NNSR) program under LAC 33:III.504 applies on a pollutant-specific basis when a major source constructs or modifies in an area that is designated as nonattainment for a given pollutant. In order to construct a new major source or major

[16] EDMS Doc ID 9353796
[17] "Guidance for 1-Hour SO_2 Nonattainment Area SIP Submissions," April 23, 2014 (p. 40)

modification in an SO_2 nonattainment area, NNSR requires that new and modified sources of SO_2 emissions be controlled with Lowest Achievable Emission Rate (LAER) technology. In addition, the SO_2 increase associated with the physical change or change in the method of operation must be offset by greater SO_2 emission reductions to ensure that a net air quality benefit will occur. The offset requirement is satisfied via the purchase or use of Emission Reduction Credits (ERCs). An ERC represents a voluntary reduction in emissions of SO_2 from a source in the same nonattainment area.

As a condition for issuing a permit for a new major source or major modification in a nonattainment area, the public record must also contain an analysis, provided by the applicant, of alternate sites, sizes, production processes, and environmental control techniques and demonstrate that the benefits of locating the source in the nonattainment area significantly outweigh the environmental and social costs imposed. In addition, all existing major stationary sources owned or operated by the applicant in Louisiana must be in compliance with all applicable state and federal emission limitations and standards, the CAA, and all conditions in a state or federally enforceable permit, or be on schedules for compliance.

The EPA has approved both Louisiana's NNSR and ERC banking programs.[18] Note that per a rule revision promulgated November 20, 2012 (AQ 327),[19] revisions to LDEQ's ERC banking program (LAC 33:III.Chapter 6) were made such that creditable SO_2 reductions could be banked and traded as ERC. No further revisions to LAC 33:III.504 or Chapter 6 are required to implement the NNSR program in St. Bernard Parish.

SECTION 8: CONTINGENCY MEASURES

Section 172(c)(9) of the CAA defines contingency measures as such measures in a SIP that are to be implemented in the event that an area fails to make RFP, or fails to attain the NAAQS, by the applicable attainment date. Contingency measures are to become effective without further action. The contingency plan ensures that the contingency measures are adopted expeditiously once they are triggered.

[18] LAC 33:III.504 was approved on September 30, 2002 (67 FR 61270); LAC 33:III.Chapter 6 was approved on September 27, 2002 (67 FR 60877)
[19] *See* Appendix D.

The contingency plan for sulfur dioxide is triggered upon monitoring a violation of the 1-hour sulfur dioxide standard. A violation occurs when the design value for the area exceeds 75 ppb on one or more monitors in the network over the 3 year data collection period. Implementation of contingency measures will take effect as soon as practical.

Implementation of the contingency plan involves analysis of data to determine the cause of the violation. If, after this analysis is complete, the state determines that the violation was caused by events that can be controlled within the state's jurisdiction through regulatory actions, the state will determine the appropriate measures for implementation at major SO_2 sources and implement such measures as expeditiously as possible through the use of emergency rules and/or appropriate Administrative Orders. The State has regulatory authority to implement emergency rules for cause which may include violations of the NAAQS (La. R.S. 2050).

EPA has acknowledged "that SO_2 presents special considerations"[20] as a directly-emitted pollutant. EPA has further stated that control efficiencies are well known for SO_2 and it would be unlikely for an area to have installed necessary controls and fail to meet the standard. As such, EPA guidance states that a comprehensive program to identify sources causing a violation of the SO_2 NAAQS, conduct aggressive follow-up for compliance and enforcement procedures for expediting enforcement agreements is a valid contingency approach.

Determination of the appropriate contingency measure(s) for implementation will involve the following actions:

- Identification/evaluation of prospective control measures for identified sources;
- Initiation of stakeholder process;and
- Implementation of contingency measures through promulgation of appropriate control rules and/or Administrative Orders adhering to public notice and comment requirements.

The secretary of LDEQ has broad authority to implement such measures through Administrative Orders under La. R.S. 30:2011.D(6), which states that the secretary shall have such powers and duties to "issue such orders or determinations as may be necessary to effectuate

[20] "Guidance for 1-Hour SO_2 Nonattainment Area SIP Submissions," April 23, 2014 (p. 41)

the purpose of this Subtitle, to issue cease and desist orders as provided in La. R.S. 30:2025, and to delegate the power to issue such orders to the appropriate assistant secretary."

APPENDIX A: PUBLIC NOTICE DOCUMENTS

NOTIFICATION TO THE LOUISIANA REGISTER

Public Notice

Department of Environmental Quality
Office of the Secretary
Legal Division

2010 Sulfur Dioxide
National Ambient Air Quality Standards
State Implementation Plan Revisions

Under the authority of the Louisiana Environmental Quality Act, LA R.S. 30:2051 et seq., the secretary gives notice that the Office of Environmental Services, Air Permits Division, Manufacturing Section, will submit to the Environmental Protection Agency (EPA) a revision to the Louisiana State Implementation Plan (SIP) for sulfur dioxide.

On June 2, 2010, EPA strengthened the primary National Ambient Air Quality Standards (NAAQS) for SO_2. EPA revised the primary SO_2 NAAQS by establishing a new 1-hour standard at a level of 75 parts per billion (ppb). The EPA has designated St. Bernard Parish as nonattainment for the new NAAQS. The SIP revision will implement standards required by the Clean Air Act for the nonattainment area.

All interested persons are invited to submit written comments concerning the revisions no later than 4:30 p.m., Friday, May 22, 2015, to Vivian H. Aucoin, Office of Environmental Services, P.O. Box 4313, Baton Rouge, LA. 70821-4313, (225) 219-3482, or by email to vivian.aucoin@la.gov. A public hearing will be held at 6:00 p.m. on Thursday, May 21, 2015 at the St. Bernard Government Council Chambers, 8201 West Judge Perez Drive, Chalmette, LA 70043.

A copy of the revision may be viewed on April 6, 2015 on the LDEQ website; at the St. Bernard Parish Library at 2600 Palmisano Boulevard, Chalmette, Louisiana 70043; or the LDEQ headquarters at 602 N. 5th Street, Baton Rouge, Louisiana 70802.

NOTIFICATION TO THE ADVOCATE

Amanda Polito

Attachments: Pub-PN-SIPso2.doc

From: Heather Desporte
Sent: Thursday, March 26, 2015 2:47 PM
To: 'Legal Ads'
Subject: public notice

Please reply back to email:

The attached public notice is scheduled for publication as a legal ad in your newspaper on **Friday, April 3, 2015.** You should also receive a copy of the notice via fax. **Please compare the emailed notice to the faxed copy to assure the information transmitted properly and that nothing was dropped out of the electronic form**. Please respond back with whether or not you have received the fax and email. Thanks.

***All of the billing information is listed on the letter that was sent to you via fax.**

Heather Desporte

Louisiana Department of Environmental Quality
Office of Environmental Services
Permits Support Services Division
PHONE: (225) 219-3279
FAX: (225) 325-8206

Amanda Polito

Subject: FW: public notice

From: Mixon, Elizabeth [mailto:lmixon@theadvocate.com] **On Behalf Of** Legal Ads
Sent: Thursday, March 26, 2015 2:52 PM
To: Heather Desporte
Subject: RE: public notice

Received.
Thank you.

THE ADVOCATE

Libby Mixon
Public Notices Representative
legal.ads@theadvocate.com Tel: (225) 388-0128
www.theadvocate.com Fax: (225) 388-0164

LPA Newspaper of the Year
Reaching 78% of area adults each week
7290 Bluebonnet Blvd., Baton Rouge, LA 70810

From: Heather Desporte [mailto:Heather.Desporte@la.gov]
Sent: Thursday, March 26, 2015 2:47 PM
To: Legal Ads
Subject: public notice

Please reply back to email:

The attached public notice is scheduled for publication as a legal ad in your newspaper on **Friday, April 3, 2015.** You should also receive a copy of the notice via fax. **Please compare the emailed notice to the faxed copy to assure the information transmitted properly and that nothing was dropped out of the electronic form**. Please respond back with whether or not you have received the fax and email. Thanks.

***All of the billing information is listed on the letter that was sent to you via fax.**

Heather Desporte

Louisiana Department of Environmental Quality
Office of Environmental Services
Permits Support Services Division
PHONE: (225) 219-3279
FAX: (225) 325-8206

NOTIFICATION TO THE ST. BERNARD VOICE

Amanda Polito

Attachments: Pub-PN-SIPso2.doc

From: Heather Desporte
Sent: Thursday, March 26, 2015 2:47 PM
To: 'publicnotices@thestbernardvoice.com'
Subject: public notice

Please reply back to email:

The attached public notice is scheduled for publication as a legal ad in your newspaper on **Friday, April 3, 2015.** You should also receive a copy of the notice via fax. **Please compare the emailed notice to the faxed copy to assure the information transmitted properly and that nothing was dropped out of the electronic form**. Please respond back with whether or not you have received the fax and email. Thanks.

***All of the billing information is listed on the letter that was sent to you via fax.**

Heather Desporte

Louisiana Department of Environmental Quality
Office of Environmental Services
Permits Support Services Division
PHONE: (225) 219-3279
FAX: (225) 325-8206

Amanda Polito

Subject: FW: public notice

From: Public Notices [mailto:publicnotices@thestbernardvoice.com]
Sent: Monday, March 30, 2015 11:59 AM
To: Heather Desporte
Subject: Re: public notice

Dear Ms. Desporte:

I am confirming that I received your email. The notice(s) will run on April 3. Thank you!
Sincerely,

Shea Drake

NOTE: Public notices must be submitted by Monday at 5 p.m. prior to the Friday publication. Deadlines are subject to change due to special events and holiday.

Shea Drake | Legal & Public Notice Clerk

On Thu, Mar 26, 2015 at 2:46 PM, Heather Desporte <Heather.Desporte@la.gov> wrote:

Please reply back to email:

The attached public notice is scheduled for publication as a legal ad in your newspaper on **Friday, April 3, 2015.** You should also receive a copy of the notice via fax. **Please compare the emailed notice to the faxed copy to assure the information transmitted properly and that nothing was dropped out of the electronic form**. Please respond back with whether or not you have received the fax and email. Thanks.

***All of the billing information is listed on the letter that was sent to you via fax.**

Heather Desporte

Louisiana Department of Environmental Quality
Office of Environmental Services
Permits Support Services Division
PHONE: (225) 219-3279
FAX: (225) 325-8206

APPENDIX B: EMISSIONS INVENTORY

LOUISIANA EMISSION INVENTORY – ST. BERNARD PARISH (BY YEAR)

TABLE B.1		
2011 Emission Inventory – Sulfur Dioxide Emissions (TPY)		
AI	**Facility Name**	**Emissions**
1239	Valero	213.7
1329	Chalmette Cane Sugar Refinery	0.66
1376	Chalmette Refining LLC – Chalmette Refinery	386.35
2557	Rain CII Carbon LLC- Chalmette Coke Plant	4281.79
17664	Southern Natural Gas Co – Toca Compressor Station	0.22
17691	TOCA Gas Processing Plant	3.24
26893	Targa Midstream Services LLC – Yscloskey Gas Plant	6.95
86857	ELOI Bay Platform No. 1	0.32
93523	Valero Terminating & Distribution Co. – Meraux Terminal	0.09
93523	Meraux Terminal	0.31
	2011 Source Totals	**4893.63**

TABLE B.2		
2012 Emission Inventory – Sulfur Dioxide Emissions (TPY)		
AI	**Facility Name**	**Emissions**
1239	Valero	153.09
1329	Chalmette Cane Sugar Refinery	0.67
1376	Chalmette Refining LLC – Chalmette Refinery	241.91
2557	Rain CII Carbon LLC- Chalmette Coke Plant	4657.14
17664	Southern Natural Gas Co – Toca Compressor Station	0.17
17691	TOCA Gas Processing Plant	4.56
26893	Targa Midstream Services LLC – Yscloskey Gas Plant	4.55
86857	ELOI Bay Platform No. 1	0.24
	2012 Source Totals	**5062.33**

TABLE B.3		
2013 Emission Inventory – Sulfur Dioxide Emissions (TPY)		
AI	**Facility Name**	**Emissions**
1239	Valero	200.74
1329	Chalmette Cane Sugar Refinery	0.76
1376	Chalmette Refining LLC – Chalmette Refinery	255.46
2557	Rain CII Carbon LLC- Chalmette Coke Plant	3061.88
17664	Southern Natural Gas Co – Toca Compressor Station	0.17
17691	TOCA Gas Processing Plant	3.27
86857	ELOI Bay Platform No. 1	0.41
	2013 Source Totals	**3522.69**

2011 NEI EMISSIONS – ST. BERNARD PARISH

Source Type	SO_2 Emission TPY
Point	4773.34
Nonpoint	702.22
Nonroad	1.31
Onroad	2.35

APPENDIX C: SO_2 MODELING

MODELING PROTOCOL

SO_2 Modeling Protocol

Louisiana Department of Environmental Quality
Office of Environmental Services
Air Permits Division

1. Background

On June 2, 2010, EPA revised the primary sulfur dioxide (SO_2) national ambient air quality standard (NAAQS) by establishing a new 1-hour standard at a level of 75 parts per billion (ppb) in order protect public health with an adequate margin of safety. The 75 ppb standard was promulgated on June 22, 2010, and became effective on August 23, 2010.[1] EPA also revoked the existing 24-hour and annual primary standards, but retained the 3-hour secondary standard. The form of the 1-hour standard is a 3-year average of the 99th percentile of the annual distribution of daily maximum 1-hour average concentrations. Dispersion modeling is necessary to demonstrate attainment of the 1-hour ambient air quality standard for SO_2. The purpose of this document is to set forth procedures used by the Louisiana Department of Environmental Quality (LDEQ) in modeling efforts for attainment planning for SO_2.

2. St. Bernard Parish Background

St. Bernard Parish is located southeast of New Orleans and has three major sources of SO_2 emissions as described below. In accordance with Section 107(d)(1)(B) of the Clean Air Act (CAA), EPA promulgated a single parish, St. Bernard, as nonattainment with the 1-hour SO_2 standard on July 25, 2013.[2] This designation was based on data from the Chalmette Vista monitoring site that showed violations of the standard.

Meteorologically, the area has winds that predominantly originate from southerly directions, varying from southeast to southwest. The Chalmette Vista site is located at the northwest side of the industrial complex area and is more often impacted by emissions than the parish's other SO_2 monitor, the Meraux monitor. According to EPA's Technical Support Document "Louisiana Area Designations For the 2010 SO_2 Primary National Ambient Air Quality Standard," emissions sources closest to the violating monitor are located in St. Bernard Parish. This suggests that sources in St. Bernard Parish are causing or contributing to the monitored violation of the 2010 SO_2 NAAQS. The three largest sources of SO_2 in the parish are two refineries and a carbon calcining facility: Valero Refining Company-Louisiana (Valero Refining), Chalmette Refining, L.L.C. (Chalmette Refining), and Rain CII Carbon LLC (Rain).

The source furthest from the monitor is the Valero Refining facility located in Meraux. This facility has had major SO_2 reductions due to EPA's refinery initiative.[3] The refinery produces propane, motor gasoline, kerosene, diesel, No.6 fuel oil, and other miscellaneous petroleum products. The initial petroleum refining process separates crude oil into different fractions based upon its boiling point ranges. Light hydrocarbon fractions may undergo catalytic reforming to rearrange short chain hydrocarbon streams for use in gasoline blending. Heavier fractions may undergo catalytic cracking to break up the large hydrocarbon compounds into useful gasoline blending components. Various process streams are also treated to remove sulfur before further processing takes place. Petroleum refinery operations typically include auxiliary systems such as hydrogen production, wastewater treating, and steam production.

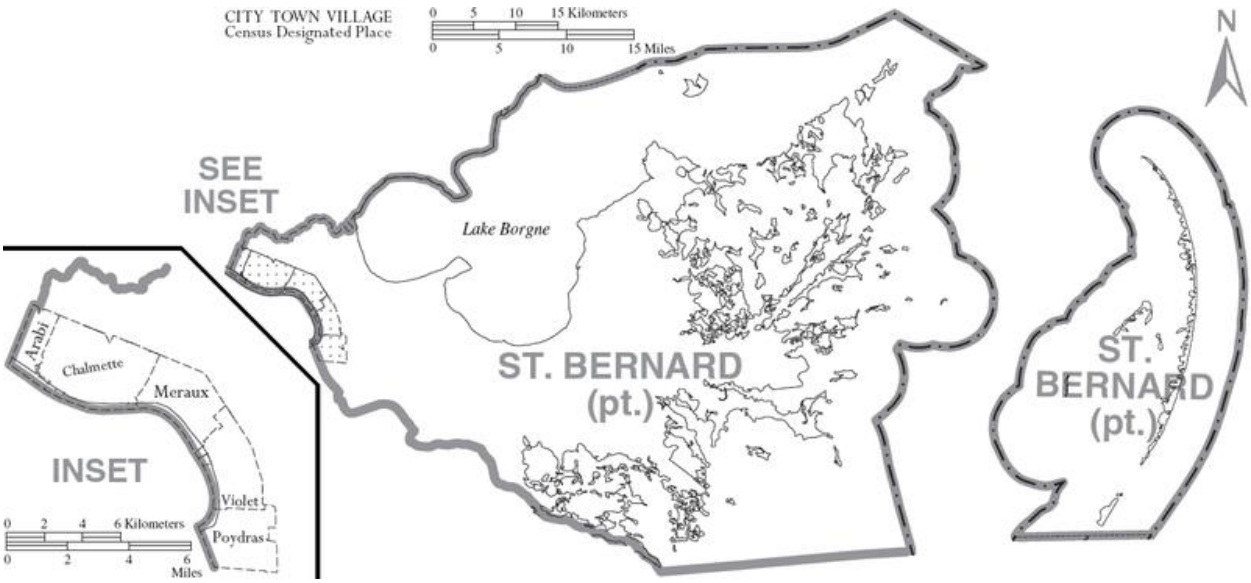
Chalmette Refining is operated by ExxonMobil. This refinery has also implemented EPA-required controls that have significantly reduced SO_2 emissions.[4] Chalmette Refining is an

[1] 75 FR 35520
[2] Designations are codified at 40 CFR 81.319.
[3] http://www2.epa.gov/enforcement/murphy-oil-usa-clean-air-act-settlement#reductions
[4] http://www2.epa.gov/enforcement/consent-decree-chalmette-refining-llc

integrated crude operation (high conversion) which includes crude distillation, catalytic reforming, fluid catalytic cracking (FCC), hydrocracking, HF alkylation, delayed coking, and aromatics processing units. The refinery is capable of producing gasoline, diesel, benzene/toluene/xylene (BTX), distillates, and elemental sulfur, as well as by-products such as petroleum coke and liquefied petroleum gas (LPG).

Rain is a carbon calcining facility located nearest to the violating monitor. Rain has fewer SO_2 controls in relation to the aforementioned facilities, but is currently implementing controls and process changes to mitigate SO_2 emissions. These measures include the addition of a flue gas desulfurization device and raising the height of the main process stack. Analysis was done to determine the worst case dispersion using three scenarios: startup, normal operations, and operation through the waste heat boiler. Operations through the waste heat boiler were determined to be the worst case scenario for SO_2 dispersion; these parameters were run for the full five years of meteorology to determine the maximum impact from the facility.

Image 2.1 St. Bernard Parish



3. Model Selection

3.1 AERMOD

Guidance from EPA indicated that for area designations under the 1-hour SO_2 primary NAAQS, AERMOD should be used unless use of an alternative model can be justified (Section 3.2, Appendix W). LDEQ will use the 14134 version of AERMOD for this demonstration. EPA asserts AERMOD is appropriate for the SIP development process because SO_2 concentrations result from direct emissions from combustion sources so that concentrations are highest relatively close to sources and are much lower at greater distances due to dispersion. Given the source-oriented nature of this pollutant (see, e.g., 75 FR at 35570), dispersion models are appropriate to predict the near-field concentrations of this pollutant.

The AERMOD modeling system includes several components. The regulatory components are:

- AERMOD: the dispersion model (Version Date 14134)
- AERMAP: the terrain processor for AERMOD (Version Date 11103)
- AERMET: the meteorological data processor for AERMOD (Version Date 14134)

The non-regulatory components are:

- BPIPPRIME: the building input processor (Version Date 04274)
- AERMINUTE: the preprocessor to AERMET (Version Date 14237)
- AERSURFACE: the surface characteristics processor for AERMET (Version Date 13016)
- AERSCREEN: a recently released screening version of AERMOD (Version Date 14147)

The regulatory default option will be used and requires the use of terrain elevation data and stack-tip downwash, and assumes a 4-hour half-life for SO_2 in urban areas.

AERSCREEN, a conservative alternative which is a screening-level model based on AERMOD, was used to screen out sources outside the parish greater than 20 km from the violating monitor from refined modeling. The model produces estimates of "worst-case" 1-hour concentrations for a single source without the need for hourly meteorological data, and includes conversion factors to estimate "worst-case" 3-hour, 8-hour, 24-hour, and annual concentrations.

3.2 Model Control Options

The regulatory default options within the modeling system will be set through the use of the MODELOPT keyword contained within the control pathway of the air quality model. The modeling will include terrain elevation data, routine processing of averages when missing data or calm meteorological data occurs and stack-tip downwash calculations for Valero Refining, Chalmette Refining, and Rain. If necessary, the protocol document will be updated to include alternate modeling procedures.

4. Modeling Domain

4.1 Determining Sources to Model

When considering other sources to include in the modeling, Appendix W states in Section 8.2.3.b that all sources expected to cause a significant concentration gradient in the vicinity of the source of interest should be explicitly modeled and that the number of such sources is expected to be small except in unusual cases.

Other sources in the area, i.e. those not causing significant concentration gradients in the vicinity of the source of interest, should be included in the modeling via monitored background concentrations. Most major sources in the 50 kilometer (km) surrounding the violating monitor are located to the north in St. Charles Parish and in the non-predominant wind direction. Through analysis of permitted data within 20 km of the violating monitor, it was determined that modeling all sources that are permitted for greater than 10 tons per year will capture 99.74% of permitted SO_2 emissions The remaining sources in the parish and outside of the 20 km radius in

the area will be captured by background concentrations. Sources in other parishes will be evaluated during the second phase of the SO_2 standard implementation

4.2 Receptor Grid

LDEQ's modeling will be performed around a violating monitor. The domain will be centered on the violating monitor and extended to include the entire parish.

Receptor placement will include the complete St. Bernard Parish area and will be of sufficient density to provide resolution needed to detect significant gradients in the concentrations, with receptors placed closer together near the source to detect local gradients and placed farther apart away from the source. In addition, receptors will be placed at key locations such as around facility fence lines, which define the ambient air boundary for a particular source. Receptors will be placed with 100 meter (m) spacing extending 2 km from the fence line of the three major facilities in St. Bernard Parish; spacing will be 250 m from 2-7 km; 500 m interval from 7-11 km; and 1,000 m interval from 11-50 km beyond.

5. Emissions Inputs

Consistent with past SO_2 modeling guidance (section 4.5.2 of U.S. EPA 1994) and regulatory modeling for other programs (Appendix W, section 8.1), dispersion modeling for the purposes of SIP development should be based on the use of maximum allowable emissions or federally enforceable permit limits within the parish. Also consistent with past and current guidance, in the absence of allowable emissions or federally enforceable permit limits, potential to emit emissions, design capacity, should be used. Because of the short-term nature of the new SO_2 NAAQS, the maximum short term or hourly emission rate should be input into AERMOD for each modeled hour. Intermittent sources such as emergency equipment operated less than 100 hours and other small sources will be omitted. Occasional startup and shutdown emissions will be annualized.

Consistent with previous SO_2 modeling guidance (U.S. EPA, 1994) and section 6.2.2 of Appendix W, for stacks with heights that are within the limits of Good Engineering Practice (GEP), actual heights should be used in modeling. If stack heights exceed GEP, then GEP heights will be used with the individual stack's other parameters. For stacks modeled with actual heights below GEP, building downwash will be considered. GEP stack height refers to the height at which emission releases from isolated stacks or vents will not cause excessive ground level concentrations in the immediate vicinity of a source due to building downwash effects, or complex terrain. Section 123 of the CAA limits the modeling stack height to GEP when performing air quality analyses in an effort to prevent facilities from installing excessively tall stacks to meet ambient air quality and increment standards. When performing air quality analyses, the EPA has outlined three differing techniques for determining GEP stack height:

1. Stacks less than the 65 meter de minimis level; do not have to undergo a GEP determination,

2. GEP is calculated using mathematical formulas that consider nearby building dimensions and building/stack configurations, or

3. GEP is calculated using fluid model studies.

For sources with site specific data availability, the department will model all stacks at the lesser of their actual stack height, or GEP stack height as determined by the BPIP PRIME preprocessor. Building downwash influences obtained from the BPIP PRIME output will be included in the model input file for the air quality dispersion model as deemed necessary on a case-by-case basis. Any stack that was built prior to December 31, 1970 will be modeled based upon the actual stack height per 40 CFR 52.21(h).

The spreadsheet with the building and fenceline receptors and emission inventory of sources and their emissions will also be made available.

Rain emissions inputs will be from the selected worst case scenario as determined by LDEQ.

6. Meteorological Data

Appendix W states in Section 8.3.1.1 that the user should acquire enough meteorological data to ensure that worst-case conditions are adequately represented in the model results.

Appendix W states that 5 years of NWS meteorological data or at least one year of site-specific data should be used (Section 8.3.1.2, Appendix W) and should be adequately representative of the study area. If one or more years (including partial years) of site-specific data are available, those data are preferred.

The recently released met processing tools, AERMINUTE and AERMET, should be used for processing 1-minute wind data. The 1-minute wind data address many of the issues with excess calm and missing data hours. The 1-minute data should be processed for use in regulatory modeling. Five years of NWS meteorological data will be used for this modeling demonstration.

The meteorological data will be obtained from the New Orleans/Slidell National Weather Station as determined by the LDEQ Primary Meteorological Data Source recommendation for the area. The most recent available 5 years of data will be used.

Table 6-1 LDEQ Primary Meteorological Data Sources

Regional Office	Primary Surface Station	Surrogate Surface Station	Surrogate Cloud Cover Station	Upper Air Station
Acadiana	Case-by-case	Case-by-case	Case-by-case	Lake Charles (NWS 03937)
Capital	Baton Rouge (NWS 13970)	Case-by-case	Lafayette (NWS 13976	Lake Charles (NWS 03937)
Northeast	Shreveport (NWS 13957)	Barksdale (WBAN 12958)	Longview, TX (WBAN 03901)	Shreveport (NWS 13957)
Northwest	Shreveport (NWS 13957)	Barksdale (WBAN 12958)	Barksdale (WBAN 12958)	Shreveport (NWS 13957)
Southeast	New Orleans (NWS 12916)	Belle Chase (WBAN 12958)	New Orleans (NWS 12942)	Slidell (NWS 53813)
Southwest	Lake Charles (NWS 03937)	NA	Port Arthur (NWS 12917)	Lake Charles (NWS 03937)

7. Background concentrations

As discussed in EPA's March 1, 2011 memo "Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2 Ambient Air Quality Standard" (U.S. EPA, 2011a), and the March 24, 2011 SO_2 designations guidance memo (U.S. EPA, 2011b) EPA recommends a "first tier" approach for a uniform monitored background concentration based on the monitored design values for the latest 3-year period, regardless of the years of meteorological data used in the modeling. All SO_2 monitors in the area are strongly influenced by area sources, making this value overly conservative.

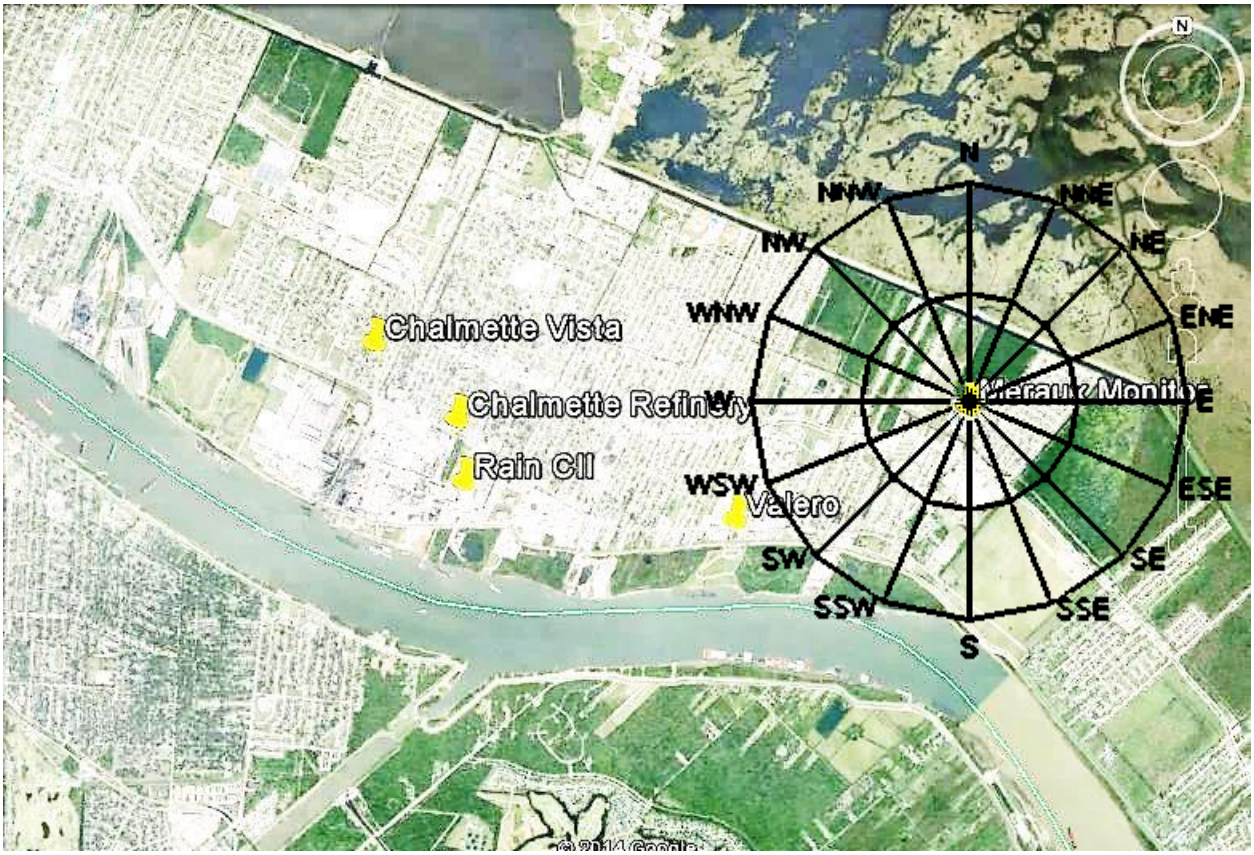
Section 8.2.2 of Appendix W gives guidance on background concentrations for isolated single sources and is, according to Appendix A of Guidance for 1-Hour SO_2 Nonattainment Area SIP Submissions, also applicable for multi-source areas. One option is, as described in Section 8.2.2.b:

> "Use air quality data in the vicinity of the source to determine the background concentration for the averaging times of concern. Determine the mean background concentration at each monitor by excluding concentrations when the source in question is impacting the monitor… For shorter time periods, the meteorological conditions accompanying concentrations of concern should be identified. Concentrations for meteorological conditions of concern, at monitors, not impacted by the source in question, should be averaged for separate averaging time to determine the average background value. Monitoring sites inside a 90 degree sector downwind of the source may be used to determine the area of impact."

The Meraux and Chalmette Vista monitoring sites are located 5 km apart; therefore meteorological conditions at the Chalmette Vista monitor are representative of those at the Meraux monitor. The Chalmette Refining, Valero Refining, and Rain facilities all sit in the arc from 213-281 degrees relative to the Meraux monitor. Hourly SO_2 values that corresponded to hours when the wind direction was between 213 and 281 degrees, and had a wind speed of at least 2 miles per hour were removed and replaced with blank values.

These adjusted hourly values were averaged for each of the years 2011, 2012, and 2013. The highest average, 2.5 ppb, was then used as background. The Meraux monitor is a non-violating monitor that is 5 km from the violating monitor in St. Bernard Parish so this monitor is still influenced by industrial sources. For this reason, LDEQ proposes that all other SO_2 sources in the parish are captured at this background level. The spreadsheets of this analysis will be made available upon request.

Image 7.1 Monitor Positioning



8. Model Outputs and Results

LDEQ will make available electronic copies of all modeling files, including model input files, output files, met data with appropriate documentation, if processing performed, and building downwash files.

9. References

LDEQ, 2006, Air Quality Modeling Procedures, August 2006

USEPA, 2005, Appendix W to Part 51 - Guideline on Air Quality Models, November 9, 2005

US EPA, 2010, Guidance Concerning the Implementation of the 1-hour SO2 NAAQS for the Prevention of Significant Deterioration Program, August 23, 2010

US EPA 2011, Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2 National Ambient Air Quality Standard, March 1, 2011

USEPA, 2011, Area Designations for the 2010 Revised Primary Sulfur Dioxide National Ambient Air Quality Standards, March 24, 2011

USEPA, 2014, Guidance for 1-Hour SO2 Nonattainment Area SIP Submissions, April 24, 2014

TECHNICAL SUPPORT DOCUMENT

SO_2 Modeling
Technical Support Document

Louisiana Department of Environmental Quality
Office of Environmental Services
Air Permits Division

1. Background

On June 2, 2010, EPA revised the primary sulfur dioxide (SO_2) national ambient air quality standard (NAAQS) by establishing a new 1-hour standard at a level of 75 parts per billion (ppb) in order protect public health with an adequate margin of safety. The 75 ppb standard was promulgated on June 22, 2010, and became effective on August 23, 2010.[1] EPA also revoked the existing 24-hour and annual primary standards, but retained the 3-hour secondary standard. The form of the 1-hour standard is a 3-year average of the 99th percentile of the annual distribution of daily maximum 1-hour average concentrations. Dispersion modeling is necessary to demonstrate attainment of the 1-hour ambient air quality standard for SO_2. The purpose of this document is to set forth procedures used by the Louisiana Department of Environmental Quality (LDEQ) in modeling efforts for attainment planning for SO_2.

2. St. Bernard Parish Background

St. Bernard Parish is located southeast of New Orleans and has three major sources of SO_2 emissions as described below. In accordance with Section 107(d)(1)(B) of the Clean Air Act (CAA), EPA promulgated a single parish, St. Bernard, as nonattainment with the 1-hour SO_2 standard on July 25, 2013.[2] This designation was based on data from the Chalmette Vista monitoring site that showed violations of the standard.

Meteorologically, the area has winds that predominantly originate from southerly directions, varying from southeast to southwest. The Chalmette Vista site is located at the northwest side of the industrial complex area and is more often impacted by emissions than the parish's other SO_2 monitor, the Meraux monitor. According to EPA's Technical Support Document "Louisiana Area Designations For the 2010 SO_2 Primary National Ambient Air Quality Standard," emissions sources closest to the violating monitor are located in St. Bernard Parish. This suggests that sources in St. Bernard Parish are causing or contributing to the monitored violation of the 2010 SO_2 NAAQS. The three largest sources of SO_2 in the parish are two refineries and a carbon calcining facility: Valero Refining Company-Louisiana (Valero Refining), Chalmette Refining, L.L.C. (Chalmette Refining), and Rain CII Carbon LLC (Rain).

The source furthest from the monitor is the Valero Refining facility located in Meraux. This facility has had major SO_2 reductions due to EPA's refinery initiative.[3] The refinery produces propane, motor gasoline, kerosene, diesel, No.6 fuel oil, and other miscellaneous petroleum products. The initial petroleum refining process separates crude oil into different fractions based upon its boiling point ranges. Light hydrocarbon fractions may undergo catalytic reforming to rearrange short chain hydrocarbon streams for use in gasoline blending. Heavier fractions may undergo catalytic cracking to break up the large hydrocarbon compounds into useful gasoline

[1] 75 FR 35520
[2] Designations are codified at 40 CFR 81.319.
[3] http://www2.epa.gov/enforcement/murphy-oil-usa-clean-air-act-settlement#reductions

blending components. Various process streams are also treated to remove sulfur before further processing takes place. Petroleum refinery operations typically include auxiliary systems such as hydrogen production, wastewater treating, and steam production.

Chalmette Refining is operated by ExxonMobil. This refinery has also implemented EPA-required controls that have significantly reduced SO_2 emissions.[4] Chalmette Refining is an integrated crude operation (high conversion) which includes crude distillation, catalytic reforming, fluid catalytic cracking (FCC), hydrocracking, HF alkylation, delayed coking, and aromatics processing units. The refinery is capable of producing gasoline, diesel, benzene/toluene/xylene (BTX), distillates, and elemental sulfur, as well as by-products such as petroleum coke and liquefied petroleum gas (LPG).

Rain is a carbon calcining facility located nearest to the violating monitor. Rain has fewer SO_2 controls in relation to the aforementioned facilities, but is currently implementing controls and process changes to mitigate SO_2 emissions. These measures include the addition of a flue gas desulfurization device and raising the height of the main process stack. Analysis was done to determine the worst case dispersion using three scenarios: startup, normal operations, and operation through the waste heat boiler. Operations through the waste heat boiler were determined to be the worst case scenario for SO_2 dispersion; these parameters were run for the full five years of meteorology to determine the maximum impact from the facility.

3. Model Selection

3.1 AERMOD

Guidance from EPA indicated that for area designations under the 1-hour SO_2 primary NAAQS, AERMOD should be used unless use of an alternative model can be justified (Section 3.2, Appendix W). LDEQ used the 14134 version of AERMOD for this demonstration.

The AERMOD modeling system includes several components. The regulatory components are:

- AERMOD: the dispersion model (Version Date 14134)
- AERMAP: the terrain processor for AERMOD (Version Date 11103)
- AERMET: the meteorological data processor for AERMOD (Version Date 14134)

The non-regulatory components are:

- BPIPPRIME: the building input processor (Version Date 04274)
- AERMINUTE: the preprocessor to AERMET (Version Date 14237)
- AERSURFACE: the surface characteristics processor for AERMET (Version Date 13016)

[4] http://www2.epa.gov/enforcement/consent-decree-chalmette-refining-llc

- AERSCREEN: a recently released screening version of AERMOD (Version Date 14147)

The regulatory default option was used in the modeling exercises.

3.2 Model Control Options

The regulatory default options within the modeling system were set through the use of the MODELOPT keyword contained within the control pathway of the air quality model. Terrain elevation data was obtained from National Elevation Dataset (NED) GeoTIFF files that were produced by the United States Geological Survey (USGS). There was routine processing of averages when missing data or calm meteorological data occurred, and routine stack-tip downwash calculations for Valero Refining, Chalmette Refining, and Rain.

4. Modeling Domain

4.1 Determining Sources to Model

When considering other sources to include in the modeling, Appendix W states in Section 8.2.3.b that all sources expected to cause a significant concentration gradient in the vicinity of the source of interest, the Chalmette Vista Monitor, should be explicitly modeled and that the number of such sources is expected to be small except in unusual cases.

Other sources in the area, i.e. those not causing significant concentration gradients in the vicinity of the source of interest, were included in the modeling via monitored background concentrations. As stated in the St. Bernard Parish Background section, there are 3 major sources located in close proximity to the monitor, Valero Refining, Chalmette Refining, and Rain. Most major sources in the 50 kilometers (km) surrounding the violating monitor are located to the north in St. Charles Parish and in the non-predominant wind direction. Through analysis of permitted data within 20 km of the violating monitor, the three major sources in the area were determined to be the main sources of concern. The remaining sources in the parish are captured by background concentrations. Sources in other parishes will be evaluated during the second phase of the SO_2 standard implementation. This approach is appropriate according to EPA's March 2011 memo "Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2, National Ambient Air Quality Standard." This memo states that, "the modeling analysis should focus on the area within about 10 km of the project location in most cases. The routine inclusion of all sources within 50 km of the project location, the nominal distance for which AERMOD is applicable, is likely to produce an overly conservative result in most cases."

4.2 Receptor Grid

Receptor placement included the complete St. Bernard Parish area and is of sufficient density to provide resolution needed to detect significant gradients in the concentrations, with receptors placed closer together near the source to detect local gradients and placed farther apart away from the source. In addition, receptors were placed at key locations such as around facility fence

lines, which define the ambient air boundary for a particular source. Receptors were placed with 100 meter (m) spacing extending 2 km from the fence line of the three major facilities in St. Bernard Parish; spacing was 250 m from 2-7 km; 500 m interval from 7-11 km; and 1,000 m interval from 11-50 km beyond.

5. Emissions Inputs

Maximum allowable emissions and federally enforceable permit limits were used for the modeled sources. Intermittent sources such as emergency equipment and other small sources were omitted. Intermittent engines were modeled with annualized emissions based on the ratio of the operating hours to 8760 hours. According to EPA's March 1, 2011 memo[5], due in part to the relatively low release heights typically associated with emergency generators, an assumption of continuous operation for these intermittent emissions would in many cases result in them becoming the controlling emissions scenario for determining compliance with the 1-hour standard. For stacks with heights that are within the limits of Good Engineering Practice (GEP), actual heights were used in modeling. If stack heights exceed GEP, then GEP heights were used with the individual stack's other parameters.

The building, fenceline, and receptor inputs are available upon request and the input parameters of the modeled sources and their modeled emissions are attached.

6. Meteorological Data

The meteorological data was obtained from the New Orleans/Slidell National Weather Station as determined by the LDEQ Primary Meteorological Data Source recommendation for the area. The data from 2009-2013 was used. The data was processed by Oris using the recently released met processing tools, AERMINUTE and AERMET.

7. Background Concentrations

The inclusion of ambient background concentrations is important in determining cumulative impacts. The modeled contribution to the cumulative analysis should follow the form of the standard and be calculated as described in Section 2.6.1.2 of the August 23, 2010 clarification memo on "Applicability of Appendix W Modeling Guidance for the 1-hour SO_2 National Ambient Air Quality Standard."

As discussed in EPA's March 1, 2011 memo "Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2 Ambient Air Quality Standard"[6], and the

[5] EPA 2011, Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2 National Ambient Air Quality Standard, March 1, 2011

[6] ibid

March 24, 2011 SO_2 designations guidance memo[7] EPA recommends a less conservative "first tier" approach for a uniform monitored background concentration based on the monitored design values for the latest 3-year period, regardless of the years of meteorological data used in the modeling. All SO_2 monitors in the area are strongly influenced by area sources, making this value overly conservative.

Section 8.2.2 of Appendix W gives guidance on background concentrations for isolated single sources and is, according to Appendix A of Guidance for 1-Hour SO_2 Nonattainment Area SIP Submissions, also applicable for multi-source areas. One option is, as described in Section 8.2.2.b:

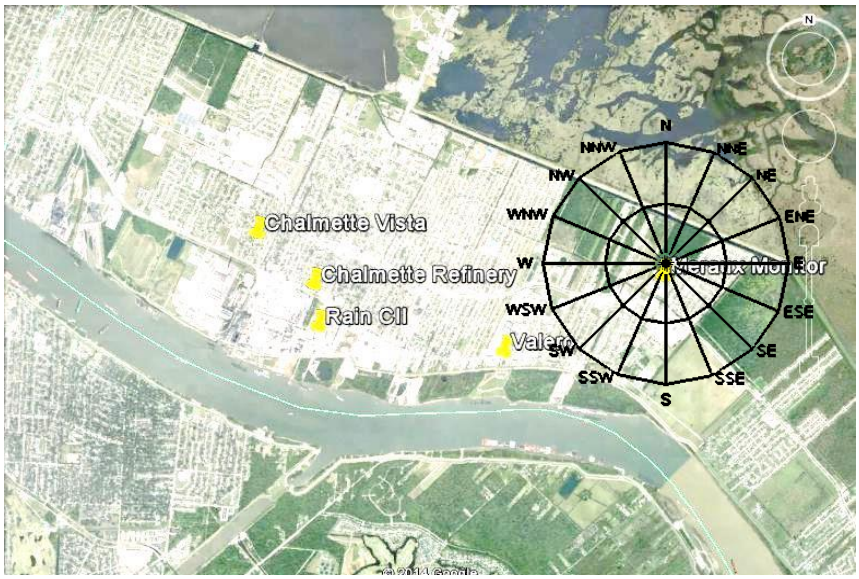
> "Use air quality data in the vicinity of the source to determine the background concentration for the averaging times of concern. Determine the mean background concentration at each monitor by excluding concentrations when the source in question is impacting the monitor… For shorter time periods, the meteorological conditions accompanying concentrations of concern should be identified. Concentrations for meteorological conditions of concern, at monitors, not impacted by the source in question, should be averaged for separate averaging time to determine the average background value. Monitoring sites inside a 90 degree sector downwind of the source may be used to determine the area of impact."

The Meraux and Chalmette Vista monitoring sites are located 5 km apart; therefore meteorological conditions at the Chalmette Vista monitor are representative of those at the Meraux monitor. The Chalmette Refining, Valero Refining, and Rain facilities all sit in the arc from 213-281 degrees relative to the Meraux monitor. Hourly SO_2 values that corresponded to hours when the wind direction was between 213 and 281 degrees, and had a wind speed of at least 2 miles per hour were removed and replaced with blank values.

The resulting hourly values were averaged for each year and the highest yearly average, 2.5 ppb, was used.

[7] EPA, 2011, Area Designations for the 2010 Revised Primary Sulfur Dioxide National Ambient Air Quality Standards, March 24, 2011

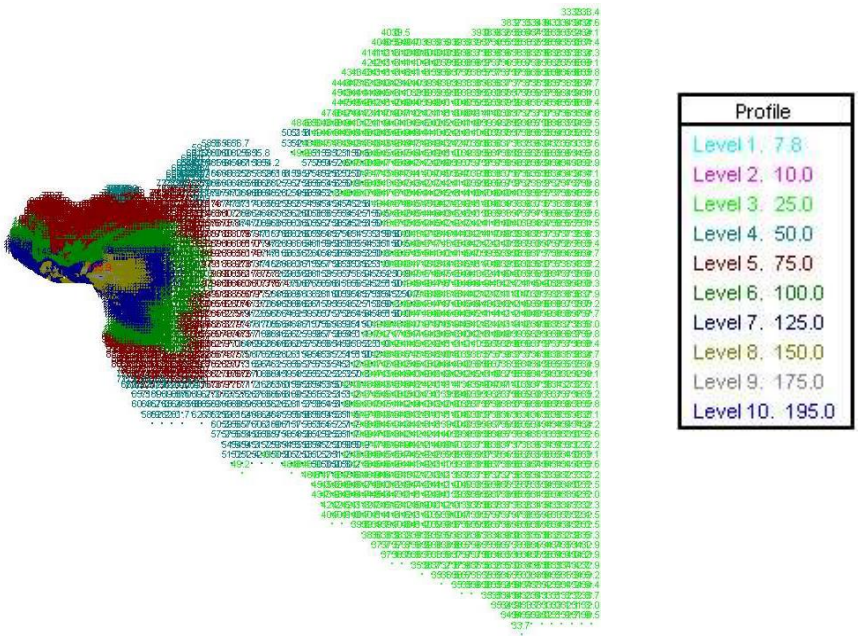
Image 7.1 Monitor Positioning



8. Model Outputs and Results

The highest total impact from the sources modeled coupled with the background contribution was 195.9µg/m^3(74.8ppb). The receptor at the violating monitor was modeled to be 149µg/m^3(57ppb). This modeled impact was based on Rain's waste heat boiler operated at a 900 lb/hr rate.

Image 8.1 Visual Representation of Modeling Results



LDEQ will make available electronic copies of all modeling files, including model input files, output files, met data with appropriate documentation upon request.

9. References

LDEQ, 2006, Air Quality Modeling Procedures, August 2006

USEPA, 2005, Appendix W to Part 51 - Guideline on Air Quality Models, November 9, 2005

US EPA, 2010, Guidance Concerning the Implementation of the 1-hour SO_2 NAAQS for the Prevention of Significant Deterioration Program, August 23, 2010

US EPA 2011, Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2 National Ambient Air Quality Standard, March 1, 2011

USEPA, 2011, Area Designations for the 2010 Revised Primary Sulfur Dioxide National Ambient Air Quality Standards, March 24, 2011

USEPA, 2014, Guidance for 1-Hour SO_2 Nonattainment Area SIP Submissions, April 24, 2014

AERMOD SOURCE INPUTS

Source ID	Source Description	Easting (X)	Northing (Y)	Base Elevation	Stack Height	Temperature	Exit Velocity	Stack Diameter	SO2
		(m)	(m)	(ft)	(ft)	(°F)	(fps)	(ft)	(lb/hr)
109A	BenFree Reboiler	215707.77	3314700.8	7.18503937	150	507.992	15.6	6.5	1.76
277	No. 2 FCC Stack	215874.46	3314993.65	5.380577428	180	600.008	80.5	7	291.31
300	Boiler B-6	215910.13	3315028.24	6.56167979	150	298.004	51	4.669947507	4.42
200	Boiler B-5	215933.03	3315016.56	5.971128609	150	298.004	51	4.669947507	4.42
106A	Boiler TB-01	215827.92	3314761.84	6.955380577	33	345.002	38.46	4	3.24
192	Marine Recovery Flare	215566	3314287	11.08923885	88	537.998	65.62	0.81988189	0.93
1572	NHT Debut Reboiler	215857.86	3314761.08	6.955380577	125	624.992	13.21	4.459973753	1.12
100A	Hydrocracker/Hydrotreater/Fractionato	215965.81	3315013.5	5.807086614	226	600.008	21.5	9.169947507	10.51
107A	Boiler B-7	215870.21	3314752.99	6.988188976	150	298.004	51	4.669947507	2.67
177	No. 2 Alky Reboiler	215952.2	3314935.07	6.397637795	200	415.994	5.61	8.830052493	1.6
1772A,B,C	Platformer Charge Heater	215951.2	3314858.54	6.88976378	180	579.992	16.93	7.5	9.04
1472	NHT Charge Heater	215988.98	3314862.01	6.397637795	126	725	14.43	4.709973753	1.19
1972	Platformer Debut Reboiler	215986.91	3314856.52	6.266404199	125	510.008	6.31	3.709973753	1.26
1672	NHT Depent Reboiler	215984.83	3314851.02	6.135170604	125	500	11.69	4.459973753	1.37
1272A	No. 1 Crude Heater	215995.4	3314848.53	6.233595801	170	350.006	23.2	10.25	9.95
573	DHT Charge Heater	215980.6	3314761.26	6.397637795	48.3300525	1099.994	14.04	4.209973753	1.1
193	SRU No. 2 Incinerator	216002.1	3314808.42	6.496062992	200	500	107	2	16.75
500	SRU No. 3 Incinerator	216002.1	3314808.42	6.496062992	200	1200.002	21	5.970144357	39.94
176	Vacuum Heaters	216066.87	3314808.97	7.119422572	110	300.002	20	7.5	4.93
180	ROSE Heater	216082.12	3314800.82	7.480314961	110	350.006	10.83	8	3.4
292	MDH Product Fractionator Heater and C	216100.13	3314749.32	7.80839895	150	350.006	14.9	9	5.05
2072	North Flare Stack	216275.39	3314951.2	6.725721785	200	1832	65.6	4.5	5.21
377	South Flare Stack	216258.32	3314888.39	7.578740157	200	1832	65.6	4.5	506.12
K2804	No. 1 Coker Diesel Compressor Engine	212777.3	3315602.15	7.086614173	7.54986877	400.01	65.62	0.49015748	0.54
26A	No. 1 Coker Heater (F-2800)	212784.5	3315600.41	6.824146982	150	669.992	30.5	6	3.43
BBE	Blend Building Engines	213316.67	3315614.69	8.530183727	5	159.998	2.3	0.5	0.01
LE	Lab Engines	213316.67	3315614.69	8.530183727	5	159.998	2.3	0.5	0.01
ICE4	Internal Combustion Engine No. 4	213316.67	3315614.69	8.530183727	12.1000656	399.992	116.91	0.5	1.03
ICE5	Internal Combustion Engine No. 5	213316.67	3315614.69	8.530183727	12.1000656	399.992	116.91	0.5	1.03
45A	FCC Heater (F-7801)	213303.64	3315361.71	9.120734908	149.899934	649.994	22.3	5.25	2.45
49	Alky Isostripper Reboiler (F-7901)	213249.49	3315323.17	9.317585302	190	460.004	41.3	5.68011811	5.04
K8104	No. 2 Coker Compressor Diesel Engine	212550.93	3315142.67	11.81102362	8	399.992	112.5	1	1

21A	No. 3 Pretreater Heater (F-2504)	213155.18	3315204	10.00656168	43	690.008	18	4	1.09
22A	No. 3 Pretreater Reboiler (F-2505)	213159.2	3315202.68	10.00656168	43	678.002	21	4	1.44
47	FCC Regenerator Flue Gas Scrubber Vent	213257.09	3315243.08	9.087926509	213.299869	145.004	46.6	8.330052493	68.14
48	FCC Regenerator Aux. Burner (F-7802)	213257.09	3315243.08	9.087926509	213.299869	145.004	46.6	8.330052493	1.93
46	SRU Train 1/2 Thermal Oxidizer (F-8003/	212986.09	3315115.84	9.744094488	157.200131	800.006	54.5	4	95
SL	Sulfur Loading	212973.08	3315098.43	10.10498688	9.83989501	69.998	0	0.330052493	0.15
60A	No. 2 Coker Heater (F-8101)	212520.17	3315074.67	10.82677165	200	829.994	53.8	6	7.35
24A	Hydrocracker Splitter Reboiler (F-2304)	213205.9	3315162.3	9.809711286	61	899.996	28.2	5	1.79
20A	No. 3 Hot Oil Heater (F-2506)	213210.71	3315161.29	9.809711286	160	559.004	17.7	10	6.65
ICEU2	Internal Combustion Engine No. 2	213270	3315186	9.350393701	12.1000656	399.992	116.91	0.5	0.01
74A	No. 3 Reformer Regeneration Vent	213154.35	3315131.01	9.67847769	40	300.002	92.5	0.669947507	0.76
38A	No. 3 Reformer Rx 3 Preheater (F-2503)	213126.68	3315118.42	10.03937008	75	577.994	20	6	2.94
25AB	Hydrocracker Stabilizer Reboiler (F-2303	213205.59	3315150.55	9.744094488	55	899.996	22.6	5	3.22
ICEU3	Internal Combustion Engine No. 3	213277	3315183	9.416010499	12.1000656	399.992	116.91	0.5	0.01
19B	No. 3 Reformer Rx 2Preheater (West) (F-	213134.33	3315115.44	9.875328084	150	631.994	15.7	11	6.06
ICEU1	Internal Combustion Engine No. 1	213284	3315180	9.481627297	12.1000656	399.992	116.91	0.5	0.01
27A	Boiler No. 402	213000.2	3315067.25	11.05643045	135	420.008	43	8.99015748	13.3
19A	No. 3 Reformer Rx 1Preheater (East) (F-2	213146.61	3315111.8	9.547244094	150	645.008	15.7	11	7.11
23C	Hydrocracker 1st/2nd Stage Rx Preheate	213204.39	3315133.71	9.580052493	136	899.996	18	4	1.61
70A	Boiler No. 10	213079.91	3315082.5	10.07217848	62	410	65.4	6.919947507	13.3
23D	Hydrocracker 1st/2nd Stage Rx Preheate	213215.03	3315130.33	9.3832021	136	899.996	16.4	4	1.61
17AB	ISOM Heater (North/South) (F-600)	213123.68	3315092.31	10.40026247	35.3999344	750.002	27.6	5	2.45
39A	HDS Heater (F-3300)	212993.79	3315040.19	11.18766404	100.100066	469.994	30.8	5	2.91
40A	HDS Stripper Reboiler (F-3301)	212994.76	3315040.17	11.18766404	149.899934	590	68.5	5.200131234	2.8
66A	Boiler No. 9	213083.8	3315064.25	10.36745407	62	440.006	63.5	4.99015748	13.3
56A	ISOM Recycle Compressor 1/2 (K-600/60	213163.05	3315082.41	9.842519685	20	399.992	60.7	0.700131234	0.04
11A	No. 1 Hot Oil Heater (F-1201)	213104.86	3315037.32	11.18766404	122.399934	890.006	23	9	5.95
86	Thermal Oxidizer F-1400	212862.75	3314973.36	10.92519685	35	1599.998	2.5	4	0.01
51	440 hp Waste Gas Compressor No. 2 (K-	213030.54	3315003.74	11.48293963	18	1000.004	0.1	3.299868766	0.02
50	440 hp Waste Gas Compressor No. 1 (K-	213034.35	3315001.42	11.58136483	18	1000.004	0.1	3.299868766	0.02
52	825 hp Waste Gas Compressor No. 3 (K-	213030.4	3314998.19	11.54855643	24.8999344	1000.004	0.1	3.299868766	0.04
85A	TDU Detol Reboiler (F-4201)	213166.61	3315033.5	9.120734908	140	435.002	10.5	7.799868766	4.2
85B	TDU Heater (F-4202)	213166.61	3315033.5	9.120734908	140	435.002	10.5	7.799868766	1.54
85C	TDU Preheater (F-4203)	213166.61	3315033.5	9.120734908	140	435.002	10.5	7.799868766	1.44

53A	1500 hp Waste Gas Compressor No. 4 (K	213026.19	3314984.99	11.61417323	24.8999344	1000.004	0.1	3.299868766	0.05
14A	No. 2 Hot Oil Heater (F-1105)	213179.14	3315032.06	9.350393701	122.399934	899.996	26.9	9	6.06
16A	Prefractionator Reboiler (F-1106)	213199.28	3315025.99	10.07217848	95.1000656	550.004	16.4	5	1.65
99A	GHU Heater/F-9401	213382.84	3315109.67	9.514435696	163	395.006	22.3	2.799868766	2.1
28A	No. 1 Flare (Candelabra)	212514.17	3314873.22	11.90944882	172	1830.002	65	26	0.02
61A	CFHT Fractionator Reboiler/F-7702	213375.23	3314994.92	9.3832021	170	350.006	22.6	4.5	1.82
37A	No. 2 Crude Atmospheric Heater (F-7401	213246.8	3314920.46	11.45013123	180	728.006	29.9	9	7.35
44	CFHT Reactor Heater/F-7701	213367.7	3314972.59	9.448818898	170	370.004	17.1	5.700131234	2.45
4A	No. 1 Crude Vacuum Heater (F-1)	213083.71	3314858.78	12.04068241	150	555.008	62.7	4	3.15
7A	Ortho Rerun Reboiler (F-1500)	213201.63	3314892.79	12.69685039	75.5	890.006	29.5	4.5	1.79
9A	No. 3 Ortho Reboiler (F-1600)	213200.23	3314876.18	12.5656168	86.6000656	750.002	38.1	6	4.62
68A	No. 3 Flare	212705.41	3314792.5	12.3687664	35	1832	65.62	0.5	0.03
2A	No. 1 Crude Atmospheric Heater (F-6)	213090.46	3314839.52	12.4343832	132	550.004	25.9	8	6.13
1A	No. 1 Crude Atmospheric Heater (F-5)	213090.45	3314839.19	12.4671916	132	550.004	25.3	8	6.13
29A	No. 2 Flare (Pencil)	212771.82	3314787.31	12.4671916	191	1830.002	65	2.5	153.18
41A	No. 1 Reformer Heater/F-7501-7	213323.53	3314912.71	9.251968504	213	489.992	28.5	9.799868766	14.6
43	No. 2 Crude Vacuum Heater (F-7601)	213305.62	3314877.89	11.58136483	170	759.992	31.5	6	3.85
65A	No. 2 Crude Gas Oil Heater (F-7410)	213324.67	3314867.41	10.56430446	171	773.006	44	7	6.48
199	Waste Heat Boiler/Baghouse	212794.45	3315253.96	12.66404199	199	359.996	58	9	900

APPENDIX D: AQ 327

PUBLIC NOTICE DOCUMENTATION

CAPITAL CITY PRESS

Publisher of
THE ADVOCATE

RECEIVED
AUG 23 2012
LA. DEPT. OF ENV. QUALITY
LEGAL AFFAIRS DIVISION

PROOF OF PUBLICATION

The hereto attached notice was published in THE ADVOCATE, a daily newspaper of general circulation published in Baton Rouge, Louisiana, and the Official Journal of the State of Louisiana, City of Baton Rouge, and Parish of East Baton Rouge, in the following issues:

08/20/12

Shelley Calloni, Public Notice Clerk

Sworn and subscribed before me by the person whose signature appears above

August 20, 2012

M. Monic McChristian,
Notary Public ID# 88293
State of Louisiana
My Commission Expires: Indefinite

M. MONIC MCCHRISTIAN NOTARY PUBLIC NO. 88293 STATE OF LOUISIANA

NOTICE OF INTENT

Department of Environmental Quality
Office of the Secretary
Legal Division

Offset Requirements and Emission Reduction Credits Banking
(LAC 33:III.504, 601, 603, 605, 607, 615 and 619) (AQ327)

Under the authority of the Environmental Quality Act, R.S. 30:2001 et seq., and in accordance with the provisions of the Administrative Procedure Act, R.S. 49:950 et seq., the Secretary gives notice that rulemaking procedures have been initiated to amend the Air regulations, LAC 33:III.504, 601, 603, 605, 607, 615 and 619 (AQ327).

The Baton Rouge area (i.e., the parishes of Ascension, East Baton Rouge, Iberville, Livingston, and West Baton Rouge) was formerly designated as nonattainment with respect to the 1997 8-hour ozone National Ambient Air Quality Standards (NAAQS) of 0.08 parts per million (ppm). As such, increases of nitrogen oxides (NOX) and volatile organic compounds (VOC) emissions were governed by nonattainment new source review (NNSR) procedures provided by LAC 33:III.504. Under NNSR, prior to the construction of a new major stationary source or a major modification of an existing major stationary source, an owner or operator must obtain offsets for significant increases in emissions of NOX and VOC in the form of emission reduction credits (ERC) banked in accordance with LAC 33:III.Chapter 6.

On November 30, 2011, the U.S. Environmental Protection Agency (EPA) redesignated the Baton Rouge area to attainment of the 1997 ozone NAAQS, effective December 30, 2011. At the same time, EPA approved LDEQ's ozone maintenance plan, which projected no net growth in point source NOX and VOC emissions in the five parish area through 2022. However, another ozone standard, with which the Baton Rouge area is not in compliance, will soon be implemented.

On March 27, 2008, EPA lowered the primary ozone NAAQS from 0.08 ppm to 0.075 ppm. This standard became effective on May 27, 2008. However, on September 16, 2009, the agency announced it would reconsider the NAAQS and therefore delayed implementation of the new standard. On January 19, 2010, EPA proposed that the NAAQS should be set within the range of 0.060 to 0.070 ppm. Then, on September 2, 2011, President Obama requested that Administrator Jackson withdraw the draft Ozone National Ambient Air Quality Standards. Since the ongoing review of the ozone NAAQS will not be completed for several years, the EPA is now moving ahead with certain required actions to implement the 2008 standard. One such action is to designate areas as either attainment, nonattainment, or unclassifiable.

Based on air quality data from 2009 - 2010, LDEQ recommended to EPA that East Baton Rouge Parish be designated as nonattainment. By letter dated December 9, 2011, EPA informed LDEQ that, in addition to East Baton Rouge, the agency intends to designate as nonattainment the parishes of Ascension, Iberville, Livingston, and West Baton Rouge and plans to promulgate final ozone designations in spring of 2012. On April 30, 2012, EPA issued a final rule entitled "Implementation of the 2008 National Ambient Air Quality Standards for Ozone: Nonattainment Area Classifications Approach, Attainment Deadlines and Revocation of the 1997 Ozone Standards for Transportation Conformity Purposes." This Rule formally designated the five parishes as nonattainment, effective July 20, 2012.

This Rule is necessary to ensure that the Baton Rouge area continues to make progress toward attainment of the 2008 ozone NAAQS and to mitigate increases of NOX and VOC emissions consistent with the area's approved ozone maintenance plan.

This Rule will also remove references to the 2005 Attainment Plan and Transport Demonstration SIP and the associated inventory comparisons from Chapter 6. Currently, if the ozone design value for the Baton Rouge area is above the NAAQS for ozone, Chapter 6 requires LDEQ to compare the current total point source emissions inventory as defined in LAC 33:III.605.A to the base line inventory associated with the 2005 Attainment Plan and Transport Demonstration SIP. The outcome of this comparison is used to determine baseline emissions for calculating the surplus emission reduction. However, the 2005 Attainment Plan and Transport Demonstration SIP has since been superseded by the 1997 8-Hour Moderate SIP Revision (Redesignation Package), which was approved by EPA on November 30, 2011 (76 FR 74000). As such, the relationship between the current total point source emissions inventory and the base line inventory is no longer meaningful.

Finally, this Rule will allow for creditable reductions of criteria pollutants other than NOX and VOC to be banked. EPA promulgated a 1-hour NAAQS for SO2 on June 22, 2010. Based on 2008 - 2010 monitoring data, LDEQ recommended that the parishes of St. Bernard and West Baton Rouge be designated as nonattainment. Major stationary sources located in these parishes will be subject to the provisions of Chapter 6 for the purpose of utilizing SO2 emission reductions as offsets in accordance with LAC 33:III.504. The basis and rationale for this Rule are to ensure that the Baton Rouge area continues to make progress toward attainment of the 2008 ozone NAAQS, mitigate increases of NOX and VOC emissions consistent with the area's approved ozone maintenance plan, remove references to the 2005 Attainment Plan and

DEQ - OSEC/LAD REG ***4694495***
SUSAN HAM
PO BOX 4302 RM 821-74
BATON ROUGE LA 70821-4314

Transport Demonstration SIP and the associated inventory comparisons from Chapter 6, and allow for creditable reductions of criteria pollutants other than NOX and VOC to be banked. This Rule meets an exception listed in R.S. 30:2019(D)(2) and R.S. 49:953(G)(3); therefore, no report regarding environmental/health benefits and social/economic costs is required.

This Rule has no known impact on family formation, stability, and autonomy as described in R.S. 49:972.

A public hearing will be held on September 26, 2012, at 1:30 p.m. in the Galvez Building, Oliver Pollock Conference Room, 602 N. Fifth Street, Baton Rouge, LA 70802. Interested persons are invited to attend and submit oral comments on the proposed amendments. Should individuals with a disability need an accommodation in order to participate, contact Deidra Johnson at the address given below or at (225) 219-3985. Two hours of free parking are allowed in the Galvez Garage with a validated parking ticket.

All interested persons are invited to submit written comments on the proposed regulation. Persons commenting should reference this proposed regulation by AQ327. Such comments must be received no later than October 1, 2012, at 4:30 p.m., and should be sent to Deidra Johnson, Attorney Supervisor, Office of the Secretary, Legal Division, Box 4302, Baton Rouge, LA 70821-4302 or to FAX (225) 219-4068 or by e-mail to deidra.johnson@la.gov. Copies of these proposed regulations can be purchased by contacting the DEQ Public Records Center at (225) 219-3168. Check or money order is required in advance for each copy of AQ327. These proposed regulations are available on the Internet at www.deq.louisiana.gov/portal/tabid/2669/default.aspx.

These proposed regulations are available for inspection at the following DEQ office locations from 8 a.m. until 4:30 p.m.: 602 N. Fifth Street, Baton Rouge, LA 70802; 1823 Highway 546, West Monroe, LA 71291; State Office Building, 1525 Fairfield Avenue, Shreveport, LA 71101; 1301 Gadwall Street, Lake Charles, LA 70615; 111 New Center Drive, Lafayette, LA 70508; 110 Bamatara Street, Lockport, LA 70374; 201 Evans Road, Bldg. 4, Suite 420, New Orleans, LA 70123.

Herman Robinson, CPM
Executive Counsel

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State of Louisiana
Parish of Rapides
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NOTICE OF INTENT

Department of Environmental Quality
Office of the Secretary
Legal Division

Offset Requirements and Emission Reduction Credits Banking
(LAC 33:III:504, 601, 603, 605, 607, 615 and 619) (AQ327)

Under the authority of the Environmental Quality Act, R.S. 30:2001 et seq., and in accordance with the provisions of the Administrative Procedure Act, R.S. 49:950 et seq., the secretary gives notice that rulemaking procedures have been initiated to amend the Air Regulations, LAC [illegible] (AQ327).

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Herman Robinson, CPM
Executive Counsel

I, Bill Heirtzler, Director of Advertising,

of THE TOWN TALK, published at Alexandria,

Louisiana do solemnly swear that the

Legal Notice

advertisement, as per clipping attached, was

published in the regular and entire issue of said

newspaper, and not in any supplement thereof

for one insertion(s) commencing with the issue

dated August 15, 2012 and ending with the

issue dated August 15, 2012.

Bill Heirtzler

Subscribed and sworn to before me
this 20th day of August, 2012 at
Alexandria, Louisiana.

Terry A. Broussard
Notary Number 19477
My commission is for life.

RECEIVED
AUG 21 2012
LA. DEPT. OF ENV. QUALITY
LEGAL AFFAIRS DIVISION

Publisher of

THE NEWS-STAR
MONROE, LOUISIANA
PROOF OF PUBLICATION

The hereto attached advertisement

Was published in the NEWS-STAR.

A daily newspaper of general circulation.

Published in Monroe, Louisiana.

Parish of Ouachita in the issues of:

August 15, 2012

Elaine Parker

LEGAL AD DEPT.

Sworn and subscribed before me by

The person whose signature appears above in Monroe, LA on this

16th day of August 20 12 AD

SARAH M. WALKER
OUACHITA PARISH
MY COMMISSION IS A LIFE
NOTARY PUBLIC
LOUISIANA

Sarah M Walker

NOTARY PUBLIC

NOTICE OF INTENT

Department of Environmental Quality
Office of the Secretary
Legal Division

Ozone Requirements and Emission Reduction Credits Banking (LAC 33:III:601, 603, 605, 607, 615 and 619) (AQ327)

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Herman Robinson, CPM
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Monroe, LA
August 15, 2012
0001208314

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LA. DEPT. OF ENV. QUALITY
LEGAL AFFAIRS DIVISION

Acadiana's Daily Newspaper

THE ADVERTISER

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AFFIDAVIT OF PUBLICATION

Susan Ham, Paralegal
LA Department of Environmental Quality
OSEC/Legal Affairs Division
Remediation & Regulation Development Section
P. O. Box 4302
Baton Rouge, LA 70821-4302

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I, Rose Penfold, do solemnly swear that I am the LEGAL CLERK of THE ADVERTISER, a newspaper printed and published at Lafayette, in the Parish of Lafayette, State of Louisiana, and that from my personal knowledge and reference to the files of said publication, the advertisement of

NOTICE OF INTENT
Department of Environmental Quality
Office of the Secretary
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Offset Requirements and Emission Reduction Credits Banking
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was published in THE ADVERTISER on the following dates:

*Sunday, August 12, 2012

Rose Penfold

ROSE PENFOLD
LEGAL CLERK

Sworn to and subscribed before me this 27th day of August, 2012.

Inca J. Cormier

Notary Public – Inca J. Cormier ID# 054201

1598796
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The Times-Picayune

3800 HOWARD AVENUE, NEW ORLEANS, LOUISIANA 70125-1429 TELEPHONE (504) 826-3201

Exhibit A Attached

State of Louisiana

Parish of Orleans

City of New Orleans

Personally appeared before me, a Notary in and for the parish of Orleans, Heather Grant who deposes and says that she is an Assistant Controller of The Times-Picayune, L.L.C., a Louisiana Corporation, Publishers of The Times-Picayune, Daily and Sunday, of general circulation; doing business in the City of New Orleans and the State of Louisiana, and that the attached

LEGAL NOTICE

Re: Offset Requirements and Emission Reduction Credits Banking

Advertisement of LA Department Environmental

Quality OSEC/Legal Affairs Division
PO Box 4302
Baton Rouge, LA 70821

Was published in The Times Picayune

3800 Howard Ave.
New Orleans, LA 70125

On the following dates August 13, 2012

I attest that the copy attached hereto as "Exhibit A" is a true and correct copy of the advertisement published in The Times-Picayune on these dates.

Sworn to and subscribed before me this 14th Day of August, 2012

Notary Public

My commission expires at my death.

Charles A. Ferguson, Jr.

Notary identification number 23492

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Environmental Quality
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A public hearing will be held on September 26, 2012, at 1:30 p.m. in the Galvez Building, Oliver Pollock Conference Room, 602 N. Fifth Street, Baton Rouge, LA 70802. Interested persons are invited to attend and submit oral comments on the proposed amendments. Should individuals with a disability need an accommodation in order to participate, contact Deidra Johnson at the address given below or at (225)

219-3985. Two hours of free parking are allowed in the Galvez Garage with a validated parking ticket.

All interested persons are invited to submit written comments on the proposed regulation. Persons commenting should reference this proposed regulation by AQ327. Such comments must be received no later than October 3, 2012, at 4:30 p.m., and should be sent to Deidra Johnson, Attorney Supervisor, Office of the Secretary, Legal Division, Box 4302, Baton Rouge, LA 70821-4302 or to FAX (225) 219-4068 or by e-mail to deidra.johnson@la.gov. Copies of these proposed regulations can be purchased by contacting the DEQ Public Records Center at (225) 219-3168. Check or money order is required in advance for each copy of AQ327. These proposed regulations are available on the Internet at www.deq.louisiana.gov/portal/tabid/1669/default.aspx.

These proposed regulations are available for inspection at the following DEQ office locations from 8 a.m. until 4:30 p.m.: 602 N. Fifth Street, Baton Rouge, LA 70802; 1823 Highway 546, West Monroe, LA 71292; State Office Building, 1525 Fairfield Avenue, Shreveport, LA 71101; 1301 Gadwall Street, Lake Charles, LA 70615; 111 New Center Drive, Lafayette, LA 70508; 110 Barataria Street, Lockport, LA 70374; 201 Evans Road, Bldg. 4, Suite 420, New Orleans, LA 70123.

Herman Robinson, CPM
Executive Counsel

RULE TEXT

Title 33

ENVIRONMENTAL QUALITY

Part III. Air

Chapter 5. Permit Procedures

§504. Nonattainment New Source Review (NNSR) Procedures and Offset Requirements in Specified Parishes

A. - A.1. …

2. ~~Except as specified in Subsection M of this Section, t~~The potential to emit of a stationary source shall be compared to the major stationary source threshold values listed in Subsection L, Table 1 of this Section to determine whether the source is major.

3. ~~Except as specified in Subsection M of this Section, t~~The emissions increase that would result from a proposed modification, without regard to project decreases, shall be compared to the trigger values listed in Subsection L, Table 1 of this Section to determine whether a calculation of the net emissions increase over the contemporaneous period must be performed.

a. - d. …

4. ~~Except as specified in Subsection M of this Section, t~~The net emissions increase shall be compared to the significant net emissions increase values listed in Subsection L, Table 1 of this Section to determine whether a nonattainment new source review must be performed.

A.5. - D.4. …

5. ~~Except as specified in Subsection M of this Section, e~~Emission offsets shall provide net air quality benefit, in accordance with offset ratios listed in Subsection L, Table 1 of this Section, in the area where the NAAQS for that pollutant is violated.

D.6. - F. …

1. ~~Except as specified in Subsection M of this Section, o~~Offsets shall be required at the ratio specified in Subsection L, Table 1 of this Section. All emission reductions claimed as offset credit shall be from decreases of the same regulated pollutant or pollutant class (e.g., VOC) for which the offset is required, except that direct $PM_{2.5}$ emissions or emissions of $PM_{2.5}$ precursors may be offset by reductions in direct $PM_{2.5}$ emissions or emissions of any $PM_{2.5}$ precursor, if such offsets comply with the interprecursor trading hierarchy and ratio established in the approved SIP for a particular nonattainment area.

F.2. - L. …

* * *

M. Offset Requirements in Specified Parishes. ~~Notwithstanding the major stationary source and major modification significant net increase threshold values and minimum offset ratios established by Subsection L, Table 1 of this Section,~~Except as provided in Paragraph M.4 of this Section, the provisions of this Subsection shall apply to stationary sources located in the parishes of Ascension, East Baton Rouge, Iberville, Livingston, and West Baton Rouge ~~as long as each~~if the parish's ~~nonattainment~~designation with respect to the 8-hour national ambient air quality standard (NAAQS) for ozone is attainment, ~~"~~marginal~~"~~ nonattainment, or ~~"~~moderate nonattainment.~~"~~

~~1. For an existing stationary source with a potential to emit of 50 tons per year or more of VOC or NO_X, consideration of the net emissions increase will be triggered for any project that would:~~

~~a. increase emissions of VOC or NO_X by 25 tons per year or more, without regard to any project decreases;~~

~~b. increase emissions of the highly reactive VOC (HRVOC) listed below by 10 tons per year or more, without regard to any project decreases:~~

~~i. 1,3-butadiene;~~

~~ii. butenes (all isomers);~~

~~iii. ethylene;~~

~~iv. propylene.~~

~~2. The following sources shall provide offsets for any net emissions increase:~~

~~a. a new stationary source with a potential to emit of 50 tons per year or more of VOC or NO_X;~~

~~b. an existing stationary source with a potential to emit of 50 tons per year or more of VOC or NO_X with a significant net emissions increase of VOC, including HRVOC, or NO_X of 25 tons per year or more.~~

~~3. The minimum offset ratio for an offset required by Paragraph M.2 of this Section shall be 1.2 to 1.~~

1. New Stationary Sources. The owner or operator of a new stationary source shall provide offsets for potential VOC and NO_X emissions in excess of 50 tons per year.

2. Existing Stationary Sources

a. Consideration of the net emissions increase shall be triggered for any physical change or change in the method of operation that would increase emissions of VOC or NO_X by 25 tons per year or more, without regard to any project decreases.

b. The owner or operator of an existing stationary source with a potential to emit 50 tons per year or more of VOC shall provide VOC offsets for each physical change or change in the method of operation that would result in a net emissions increase of 25 tons per year or more of VOC.

c. The owner or operator of an existing stationary source with a potential to emit 50 tons per year or more of NO_X shall provide NO_X offsets for each physical change or change in the method of operation that would result in a net emissions increase of 25 tons per year or more of NO_X.

3. Offsets shall be required at a ratio of 1.1 to 1.

4. The provisions of this Subsection shall not apply to any new *major stationary source* or *major modification* as defined in Subsection K of this Section.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 19:176 (February 1993), repromulgated LR 19:486 (April 1993), amended LR 19:1420 (November 1993), LR 21:1332 (December 1995), LR 23:197 (February 1997), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2445 (November 2000), LR 27:2225 (December 2001), LR 30:752 (April 2004), amended by the Office of Environmental Assessment, LR 30:2801 (December 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2436 (October 2005), LR 31:3123, 3155 (December 2005), LR 32:1599 (September 2006), LR 33:2082 (October 2007), LR 34:1890 (September 2008), LR 37:1568 (June 2011), LR 38:0000 (April 2012), LR 38:**.

Chapter 6. Regulations on Control of Emissions through the Use of Emission Reduction Credits (ERC) Banking

§601. Purpose

A. This Chapter establishes the means of enabling stationary sources to identify and preserve or acquire emission reductions for New Source Review (NSR) offsets. ~~The pollutants to which this Rule applies are nitrogen oxides (NO_x) and volatile organic compounds (VOC).~~

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.
HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 20:874 (August 1994),

amended by the Office of Environmental Assessment, Environmental Planning Division, LR 28:301 (February 2002), amended by the Office of the Secretary, Legal Affairs Division, LR 38:**.

§603. Applicability

A. Major stationary sources are subject to the provisions of this Chapter for the purpose of utilizing emission reductions as offsets in accordance with LAC 33:III.504. Minor stationary sources located in ~~ozone~~ nonattainment areas may submit ERC applications for purposes of banking. Sources located in EPA-designated ~~ozone~~ attainment areas may not participate in the emissions banking program. Any stationary point source at an affected facility is eligible to participate.

B. Notwithstanding Subsection A of this Section, sources located in the parishes of Ascension, East Baton Rouge, Iberville, Livingston, and West Baton Rouge may participate in the emissions banking program for purposes of securing offsets where required by LAC 33:III.504.M.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 20:874 (August 1994), amended LR 24:2239 (December 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 25:1622 (September 1999), LR 28:301 (February 2002), amended by the Office of the Secretary, Legal Affairs Division, LR 33:2068 (October 2007), LR 38:**.

§605. Definitions

A. The terms used in this Chapter are defined in LAC 33:III.111 with the exception of those terms specifically defined as follows.

* * *

Bankable Emission Reductions—reductions of ~~NO_x or VOC~~a criteria pollutant that meet the provisions of this Chapter at the time of review and approval.

* * *

Base Case Inventory—~~the aggregate point-source emissions inventory for either NO_x or VOC from the nine modeled parishes, as modeled for the 2005 Attainment Plan and Transport Demonstration SIP dated December 2001, which includes 1997 actual emissions from point sources, banked ERC and pending ERC applications where the emission reduction occurred between January 1, 1990 and December 31, 1997, and adjustments for growth. Separate inventories have been established for NO_x and VOC.~~ Repealed.

Base Line Inventory—~~the aggregate point-source emissions inventory for either NO_x or VOC from the nine modeled parishes associated with the 2005 Attainment Plan and Transport Demonstration SIP dated December 2001, which accounts for emission reductions modeled to demonstrate attainment of the 1-hour national ambient air quality standard (NAAQS) for ozone. Separate inventories have been established for NO_x and VOC.~~ Repealed.

* * *

Current Total Point-Source Emissions Inventory—~~the aggregate point-source emissions inventory for either NO_x or VOC from the nine modeled parishes compiled from the emissions inventory records and updated annually in accordance with LAC 33:III.919 plus any banked ERC and pending ERC applications originally included in the base case inventory that have not expired.~~ Repealed.

* * *

Modeled Parishes—~~the parishes of Ascension, East Baton Rouge, East Feliciana, Iberville, Livingston, Pointe Coupee, St. Helena, West Baton Rouge, and West Feliciana.~~ Repealed.

Offset—a legally enforceable reduction, approved by the department, in the rate of actual emissions from an existing stationary point source, which is used to compensate for a significant net increase in emissions ~~of NO_x or VOC~~ from a new or modified stationary source in accordance with the requirements of LAC 33:III.504. To be valid, an offset must meet the definition of ERC.

* * *

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 20:874 (August 1994), LR 25:1622 (September 1999), LR 26:2448 (November 2000), LR 28:301 (February 2002), amended by the Office of the Secretary, Legal Affairs Division, LR 33:2068 (October 2007), LR 34:1890 (September 2008), LR 37:3221 (November 2011), LR 38:**.

§607. Determination of Creditable Emission Reductions

A. - B.2. …

C. Procedures for Calculating the Surplus Emission Reduction. The following procedures shall be used in calculating the quantity of surplus air emission reductions.~~When considering NO_x reductions, only the NO_x inventory and ERC and pending ERC applications for NO_x will be considered. Conversely, when considering VOC reductions, only the VOC inventory and ERC and pending ERC applications for VOC will be considered.~~

1. ~~If the design value for the nonattainment area is above the national ambient air quality standard (NAAQS) for ozone, the department shall compare the current total point-source emissions inventory for the modeled parishes to the base case inventory, except that, beginning with the 2005 emissions inventory, this comparison shall be made to the base line inventory.~~Reserved.

2. - 3. …

4. Quantify ~~b~~Baseline ~~e~~Emissions~~ as follows:~~. Baseline emissions shall be the lower of actual emissions or adjusted allowable emissions determined in accordance with Paragraph C.3 of this Section.

~~a. for stationary sources located in ozone nonattainment areas:~~

~~i. if the design value for the nonattainment area is above the NAAQS for ozone and the current total point-source inventory for the modeled parishes exceeds the base case inventory or base line inventory, as appropriate per Paragraph C.1 of this Section, baseline emissions shall be the lower of actual emissions, adjusted allowable emissions determined in accordance with Paragraph C.3 of this Section, or emissions attributed to the stationary point source(s) in question in the base case or base line inventory, as appropriate; or~~

~~ii. if the design value for the nonattainment area is not above the NAAQS for ozone or the current total point-source inventory for the modeled parishes does not exceed the base case inventory or base line inventory, as appropriate per Paragraph C.1 of this Section, baseline emissions shall be the lower of actual emissions or adjusted allowable emissions determined in accordance with Paragraph C.3 of this Section; and~~

~~b. for stationary sources located in ozone attainment areas, baseline emissions shall be the lower of actual emissions or adjusted allowable emissions determined in accordance with Paragraph C.3 of this Section.~~

C.5. - D. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 20:877 (August 1994), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 25:1622 (September 1999), LR 28:302 (February 2002), amended by the Office of the Secretary, Legal Affairs Division, LR 32:1601 (September 2006), LR 33:2068 (October 2007), LR 38:**.

§615. Schedule for Submitting Applications

A. …

B. If a parish is ~~re~~designated as ~~ozone~~ nonattainment by the EPA after January 1, 2012, applications for banking ERCs in such parish must be submitted by March 31 of the year following the effective date of the EPA designation.

C. - D. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 20:878 (August 1994), amended LR 21:681 (July 1995), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 25:1623 (September 1999), LR 26:486 (March 2000), LR 28:304 (February 2002), amended by the Office of the Secretary, Legal Affairs Division, LR 33:2068 (October 2007), LR 38:**.

§619. Emission Reduction Credit Bank

A. The department shall maintain a banking database that shall consist of a record of all information concerning applications, deposits, withdrawals, and transactions, as well as pertinent date(s) concerning such information. ~~The current total point-source emissions inventory for both NO_x and VOC shall also be included.~~ All data in the banking database shall be available to the public upon request.

B. - C. …

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Air Quality Division, LR 20:879 (August 1994), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2449 (November 2000), LR 28:305 (February 2002), amended by the Office of the Secretary, Legal Affairs Division, LR 38:**.

PUBLIC HEARING TRANSCRIPT

In The Matter Of:

IN RE: OFFSET REQUIREMENTS AND EMISSION REDUCTION CREDITS BANKING LOG #: AQ327

PUBLIC HEARING

September 26, 2012

RECEIVED
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ORIGINAL

STATE OF LOUISIANA

DEPARTMENT OF ENVIRONMENTAL QUALITY

IN RE:

OFFSET REQUIREMENTS AND EMISSION REDUCTION CREDITS BANKING

LOG #: AQ327

PUBLIC HEARING

The Public Hearing held by the Department of Environmental Quality, Regulation Development Section, at the Galvez Building, Oliver Pollock Conference Room, 602 N. Fifth Street, Baton Rouge, Louisiana, beginning at 1:32 p.m., on September 26, 2012.

BEFORE:

Lori B. Overland
Certified Court Reporter
In and For the State of
Louisiana

ASSOCIATED REPORTERS, INC.
(225) 216-2036

A P P E A R A N C E S

FOR THE LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY:

Susan Ham
Hearing Officer

Department of Environmental Quality
Legal Affairs Division, 8th Floor
Regulation Development
602 N. Fifth Street
Baton Rouge, Louisiana 70802

* * * * *

I N D E X

EXAMINATION:	PAGE(S):
None	
EXHIBITS:	
None	
REPORTER'S PAGE	11
REPORTER'S CERTIFICATE	12

* * * * *

1 * * * * *

2 **MS. HAM:**

3 Good afternoon. My name is Susan
4 Ham, and I'm employed by the Louisiana
5 Department of Environmental Quality.
6 I'll be serving as hearing officer this
7 afternoon to receive comments regarding
8 proposed amendments to air quality,
9 radiation protection and water quality
10 regulations.
11 The commend period for the
12 amendments AQ327 and AQ333 began on
13 August 20, 2012, when the notices of
14 intent were published in the Louisiana
15 Register. The comment period will close
16 at 4:30 p.m., October 3, 2012. It would
17 be helpful to us if all oral comments
18 received today were followed up in
19 writing.
20 This public hearing provides a forum
21 for all interested parties to present
22 comments on the proposed changes. This
23 hearing is not being conducted in a
24 question and answer format. Please
25 remember that the purpose of this public

1 hearing is to allow you, the public, an
2 opportunity to express your thoughts
3 concerning today's proposed amendments.
4 I'll ask that each person commenting
5 come up and sit at the front table and
6 begin by stating his or her name and
7 affiliation for the record.
8 The first amendment is designated by
9 the Log Number AQ327.
10 The Baton Rouge area (i.e., the
11 parishes of Ascension, East Baton Rouge,
12 Iberville, Livingston, and West Baton
13 Rouge) was formerly designated as
14 nonattainment with respect to the 1997
15 eight-hour ozone National Ambient Air
16 Quality Standards (NAAQS) of 0.08 parts
17 per million (ppm). As such, increases of
18 nitrogen oxides (NOX) and volatile
19 organic compounds (VOC) emissions were
20 governed by nonattainment new source
21 review (NNSR) procedures provided by LAC
22 33:III.504. Under NNSR, prior to the
23 construction of a new major stationary
24 source or a major modification of an
25 existing major stationary source, an

1 owner or operator must obtain offsets for
2 significant increases in emissions of NOX
3 and VOC in the form of emission reduction
4 credits (ERC) banked in accordance with
5 LAC 33:III.Chapter 6.
6 On November 30, 2011, the U.S.
7 Environmental Protection Agency (EPA)
8 redesignated the Baton Rouge area to
9 attainment of the 1997 ozone NAAQS,
10 effective December 30, 2011. At the same
11 time, EPA approved LDEQ's ozone
12 maintenance plan, which projected no net
13 growth in point source NOX and VOC
14 emissions in the five parish area through
15 2022. However, another ozone standard,
16 with which the Baton Rouge area is not in
17 compliance, will soon be implemented.
18 On March 27, 2008, EPA lowered the
19 primary ozone NAAQS from 0.08 ppm to
20 0.075 ppm. This standard became
21 effective on May 27, 2008. However, on
22 September 16, 2009, the agency announced
23 it would reconsider the NAAQS and
24 therefore delayed implementation of the
25 new standard. On January 19, 2010, EPA

1 proposed that the NAAQS should be set
2 within the range of 0.060 to 0.070 ppm.
3 Then, on September 2, 2011, President
4 Obama "requested that Administrator
5 Jackson withdraw the draft Ozone National
6 Ambient Air Quality Standards." Since
7 the ongoing review of the ozone NAAQS
8 will not be completed for several years,
9 the EPA is now moving ahead with certain
10 required actions to implement the 2008
11 standard. One such action is to
12 designate areas as either attainment,
13 nonattainment, or unclassifiable.
14 Based on air quality data from 2008
15 - 2010, LDEQ recommended to EPA that East
16 Baton Rouge Parish be designated as
17 nonattainment. By letter dated December
18 9, 2011, EPA informed LDEQ that, in
19 addition to East Baton Rouge, the agency
20 intends "to designate as nonattainment
21 the parishes of Ascension, Iberville,
22 Livingston, and West Baton Rouge" and
23 "plans to promulgate final ozone
24 designations in spring of 2012." On
25 April 30, 2012, EPA issued a final rule

1 entitled, "Implementation of the 2008
2 National Ambient Air Quality Standards
3 for Ozone: Nonattainment Area
4 Classifications Approach, Attainment
5 Deadlines and Revocation of the 1997
6 Ozone Standards for Transportation
7 Conformity Purposes." This rule formally
8 designated the five parishes as
9 nonattainment, effective July 20, 2012.
10 This rule is necessary to ensure
11 that the Baton Rouge area continues to
12 make progress toward attainment of the
13 2008 ozone NAAQS and to mitigate
14 increases of NOX and VOC emissions
15 consistent with the area's approved ozone
16 maintenance plan.
17 This rule will also remove
18 references to the 2005 Attainment Plan
19 and Transport Demonstration SIP and the
20 associated inventory comparisons from
21 Chapter 6. Currently, if the ozone
22 design value for the Baton Rouge area is
23 above the NAAQS for ozone, Chapter 6
24 requires LDEQ to compare the current
25 total point-source emissions inventory,

as defined in LAC 33:III.605.A, to the baseline inventory associated with the 2005 Attainment Plan and Transport Demonstration SIP. The outcome of this comparison is used to determine baseline emissions for calculating the surplus emission reduction. However, the 2005 Attainment Plan and Transport Demonstration SIP has since been superseded by the 1997 eight-hour Moderate SIP Revision (Redesignation Package), which was approved by EPA on November 30, 2011 (76 FR 74000). As such, the relationship between the current total point-source emissions inventory and the baseline inventory is no longer meaningful.

Finally, this rule will allow for creditable reductions of criteria pollutants other than NOX and VOC to be banked. EPA promulgated a one-hour NAAQS for SO2 on June 22, 2010. Based on 2008 - 2010 monitoring data, LDEQ recommended that the parishes of St. Bernard and West Baton Rouge be designated as

1 nonattainment. Major stationary sources
2 located in these parishes will be subject
3 to the provisions of Chapter 6 for the
4 purpose of utilizing SO2 emission
5 reductions as offsets in accordance with
6 LAC 33:III.504.
7 Does anyone care to comment on this
8 regulation?
9 (No response.)
10 **MS. HAM:**
11 If not, the hearing on AQ327 is
12 closed.
13 Thank you for your attention and
14 participation.
15 This hearing is closed.
16 **THE HEARING CONCLUDED AT 1:39 P.M.**
17 * * * * *

1 **R E P O R T E R ' S P A G E**

2 I, Lori B. Overland Certified Court
3 Reporter, in and for the State of Louisiana,
4 the officer, as defined in Rule 28 of the
5 Federal Rules of Civil Procedure and/or
6 Article 1434(b) of the Louisiana code of
7 Civil Procedure, before whom this sworn
8 testimony was taken, do hereby state on the
9 Record
10 That due to the interaction in the
11 spontaneous discourse of this proceeding,
12 dashes (--) have been used to indicate
13 pauses, changes in thought, and/or talk
14 overs; that same is the proper method for a
15 Court Reporters's transcription of
16 proceeding, and that the dashes (--) do not
17 indicated that words or phrases have been
18 left out of this transcript;
19 That any words and/or names which could
20 not be verified through reference material
21 have been denoted with the phrase
22 "(inaudible)."
23 OFFICIAL SEAL
24 LORI B. OVERLAND
Certified Court Reporter
in and for the State of Louisiana
Certificate Number 97083
Certificate expires 12-31-12
. C . R .
25 # 97083

1 **C E R T I F I C A T I O N**

2 I, the undersigned reporter, do hereby
3 certify that the above and foregoing is a
4 true and correct transcription of the
5 stenomask tape of the proceedings had
6 herein, taken down by me and transcribed
7 under my supervision, to the best of my
8 ability and understanding, at the time and
9 place hereinbefore noted, in the above
10 entitled cause.
11 I further certify that the witness was
12 duly sworn by me in my capacity as a
13 Certified Court Reporter pursuant to the
14 provisions of R.S. 37:2551 et seq. in and
15 for the state of Louisiana; that I am not of
16 counsel nor related to any of the counsel of
17 any of the parties, nor in the employ of any
18 of the parties, and that I have no interest
19 in the outcome of this action.
20 I further certify that my license is in
21 good standing as a court reporter in and for
22 the state of Louisiana.
23 _____
24 Lori Overland, C.C.R.
25 OFFICIAL SEAL LORI G. OVERLAND Certified Court Reporter In and for the State of Louisiana Certificate Number 97093 Certificate expires 12-31-12

APPENDIX E: RAIN DRAFT AOC

CERTIFIED MAIL (____ ____ ____ ____ ____)
RETURN RECEIPT REQUESTED

RAIN CII CARBON LLC
c/o Elwood F. Cahill, Jr
Agent for Service of Process
Sher Garner Cahill Richter, et.al.
909 Poydras Street, 28th Floor
New Orleans, LA 70112-1003

RE: ADMINISTRATIVE ORDER ON CONSENT
ENFORCEMENT TRACKING NO. AE-AOC-15-00398
AGENCY INTEREST NO. 2557

Dear Sir:

Pursuant to the Louisiana Environmental Quality Act (La. R.S. 30:2001, *et seq.*), the attached **ADMINISTRATIVE ORDER ON CONSENT** is hereby served on **RAIN CII CARBON LLC (RESPONDENT)**.

Any questions concerning this action should be directed to Guna Gunasekaran at (225) 219-3721.

Sincerely,

Celena J. Cage
Administrator
Enforcement Division

CJC/AG/ag
Alt ID No. 2500-00006
Attachment

DRAFT

c: Rain CII Carbon LLC
Jimmy Delaneuville
700 Coke Plant Road
Chalmette, LA 70043

DRAFT

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY

OFFICE OF ENVIRONMENTAL COMPLIANCE

IN THE MATTER OF	*	
	*	
RAIN CII CARBON LLC	*	**ENFORCEMENT TRACKING NO.**
ST. BERNARD PARISH	*	
ALT ID NO. 2500-00006	*	**AE-AOC-15-00398**
	*	
	*	**AGENCY INTEREST NO.**
	*	
PROCEEDINGS UNDER THE LOUISIANA	*	**2557**
ENVIRONMENTAL QUALITY ACT,	*	
La. R.S. 30:2001, ET SEQ.	*	

ADMINISTRATIVE ORDER ON CONSENT

The following **ADMINISTRATIVE ORDER ON CONSENT** is issued this day to **RAIN CII CARBON LLC (RESPONDENT)** by the Louisiana Department of Environmental Quality (the Department), under the authority granted by the Louisiana Environmental Quality Act (the Act), La. R.S. 30:2001, *et seq*., and particularly by La. R.S. 30:2011(D)(6) and (D)(14). The Respondent consents to the requirements set forth below.

FINDINGS OF FACT

I.

The Respondent owns and/or operates the Chalmette Coke Plant (the facility), a green petroleum coke calcining facility, located at 700 Coke Plant Road in Chalmette, St. Bernard Parish, Louisiana. The facility currently operates under Title V Permit No. 2500-00006-V2 issued on March 21, 2012.

II.

On June 22, 2010, the U.S. Environmental Protection Agency (EPA) promulgated a revised national ambient air quality standard (NAAQS) for sulfur dioxide (SO_2). *See*, 75 Fed. Reg. 35,520. The

new 1-hour SO_2 NAAQS of 75 parts per billion (ppb) is intended to provide the requisite protection of public health for this criteria pollutant.

III.

In correspondence dated July 25, 2013, the EPA notified the State of Louisiana that it intended to designate St. Bernard Parish as a nonattainment area for the 1-hour SO_2 NAAQS based on area monitoring conducted from 2009-2011. The EPA published a final rule on this designation in the Federal Register on August 5, 2013. *See,* 78 Fed. Reg. 47,191. Pursuant to this notice, the effective designation date for St. Bernard Parish was October 4, 2013. *See also,* 40 C.F.R. § 81.319.

IV.

As required by Section 110(a) of the Federal Clean Air Act, the Department is required to implement a plan to attain or maintain the SO_2 NAAQS. The State Implementation Plan (SIP) must demonstrate that all sources contributing to or having the potential to contribute to violations will be sufficiently controlled to ensure timely attainment and maintenance of the new SO_2 standard for the designated area.

V.

On February 20, 2013, the Department published notice that a revision to the infrastructure of the Louisiana SIP would be provided to the EPA as required by CAA Section 110(a) (1) and (2). *See,* 39 La. Reg. 433 (1302Pot1).

VI.

To comply with the requirements set forth in CAA Section 110(a) and the implementing regulations, the Department reviewed all measures necessary to achieve attainment on or before the attainment deadline established for the 1-hour SO_2 NAAQS promulgated on June 22, 2010. This

assessment included air quality modeling conducted for the geographic area within and surrounding St. Bernard Parish.

VII.

The Department has determined that the attainment demonstration for the State of Louisiana should include enforceable restrictions for SO_2 emitted from the Rain CII Carbon facility located in Chalmette, St. Bernard Parish, Louisiana. These enforceable restrictions are based, in part, on air quality modeling conducted by the Department and the reductions deemed necessary to achieve attainment for all air monitors located within St. Bernard Parish.

VIII.

In a separate agreement between the Department and Respondent (Enforcement Tracking No. AE-AOA-13-00490), effective on June 20, 2013, Respondent voluntarily agreed to replace the stack for the Waste Heat Boiler/Baghouse (EQT 0003) with a new stack with a height of approximately 199 feet. According to the Respondent, the new stack was installed and operational on October 10, 2013.

ADMINISTRATIVE ORDER

Based on the foregoing, the Department **HEREBY ORDERS**, and the Respondent hereby **AGREES** that:

I.

The Respondent shall construct and operate a SO_2 scrubbing system to achieve the emissions limits set forth in Paragraph II of this **ADMINISTRATIVE ORDER ON CONSENT**. Construction of the SO_2 scrubbing system commenced on December 28, 2014 and construction shall be completed no later than December 31, 2015. The SO_2 scrubbing system shall be operational no later than February 29, 2016.

II.

Upon operation of the SO_2 scrubbing system referenced in paragraph I of this **ADMINISTRATIVE ORDER ON CONSENT**, the Respondent shall comply with the emissions limitations set forth below:

Source ID	Source Description	Sulfur Dioxide (SO_2) Limit
EQT 0003	Waste Heat Boiler/Baghouse	900 pounds/hour

III.

The Respondent shall submit construction progress reports quarterly until completion of the proposed construction. The first report is due thirty (30) days after the effective date of this **ADMINISTRATIVE ORDER ON CONSENT.** Within fifteen (15) days of any deadline specified in paragraph I of this **ADMINISTRATIVE ORDER ON CONSENT**, the Respondent shall submit a certification of compliance or non-compliance with the activity required to be completed in paragraph I. If the Respondent reports non-compliance with a scheduled event, the certification shall include a discussion of the cause of the delay, an anticipated date of completion, and a discussion of any impairment of a subsequent due date. Nothing in this **ADMINISTRATIVE ORDER ON CONSENT** constitutes an approval of any delays of compliance with the deadlines.

IV.

The emissions limits set forth in paragraph II of this **ADMINISTRATIVE ORDER ON CONSENT** shall be made a part of the SO_2 NAAQS SIP submitted on behalf of the State of Louisiana.

V.

The Respondent shall continue to comply with all reporting and recordkeeping requirements contained within all applicable permits.

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VI.

Under CAA Section 504(a), permits issued under this section shall include enforceable emission limitations and standards. In accordance with CAA Section 504(a) and as a part of this agreement, the Department will modify Title V Permit No. 2500-00006-V2 to include the federally enforceable limitations listed in paragraph II of this **ADMINISTRATIVE ORDER ON CONSENT**.

VII.

This **ADMINISTRATIVE ORDER ON CONSENT** may be executed in counterparts, each of which may be executed by one (1) or more of the signatory parties hereto. Signature pages may be detached from the counterparts and attached to one or more copies of this Agreement to form multiple legally effective documents. Facsimile signatures shall be sufficient in lieu of original signatures.

VIII.

For each action or event described herein, the Department reserves 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 compliance.

IX.

This **ADMINISTRATIVE ORDER ON CONSENT** may be amended by mutual consent of the Department and Respondent. Such amendments shall be in writing, shall follow proper SIP procedures and be submitted to EPA as a SIP revision, and shall be final and effective upon signature by an authorized representative of the Department and signature by the authorized representative of the Respondent.

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X.

This **ADMINISTRATIVE ORDER ON CONSENT** shall be final and effective upon signature by an authorized representative of the Department and signature by the authorized representative of the Respondent.

Baton Rouge, Louisiana, this _____ day of _____, 2015.

_____
D. Chance McNeely
Assistant Secretary
Office of Environmental Compliance

RAIN CII CARBON LLC

By:_____ Date:_____

Name:_____

Title:_____

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