



LDEQ DRAFT

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**HAND DELIVERED**

May 31, 2023

Louisiana Department of Environmental Quality  
Office of Environmental Services  
PO Box 4313  
Baton Rouge, LA 70821-4313

**RE: Koch Methanol St. James, LLC**

**Koch Methanol Facility**

**Revised Air Quality Impact Assessment (AQIA) in Support of the  
KMe Optimization Project: Application for a Significant Modification to  
Title V Permit No. 2560-00295-V4 and an Initial PSD Permit**

**AI No. 194165**

**Activity Nos. PER20220006 and PER20220007**

Dear Sir or Madam:

Koch Methanol St. James, LLC (Koch) operates the Koch Methanol (KMe) Plant and KMe Terminal located in St. James, St. James Parish, Louisiana. The KMe Plant currently operates under Title V Permit No. 2560-00295-V5, and the KMe Terminal currently operates under Title V Permit No. 3169-V3. Koch is submitting this updated AQIA modeling report in support of our response to an additional information request from LDEQ, specifically to revise the 1-hour NO<sub>2</sub> modeling related to changes in the characterization of the hourly boiler NO<sub>x</sub> emissions. No changes have been made to annual NO<sub>x</sub> emissions, emissions of other criteria pollutants, or emissions of Louisiana Air Toxic Pollutants (LTAP) with this AQIA update.

Enclosed are the revised AQIA modeling report and two copies, as required by LDEQ; and per LAC 33:III.533.B.1, a copy of the report is also being submitted to the United States Environmental Protection Agency, Region 6.

If you or your staff have any questions or require additional information during your review, please contact Brian Glover at (225) 408-2741, [bglover@ramboll.com](mailto:bglover@ramboll.com), or you may contact me at (580) 478-7621, [kevan.reardon@kochind.com](mailto:kevan.reardon@kochind.com).

Sincerely,

A handwritten signature in blue ink, appearing to read 'Kevan Reardon'.

**Kevan Reardon**  
EH&S and Security Leader

cc: Mr. Anthony Randall  
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Prepared for  
**Koch Methanol St. James, LLC**  
**Koch Methanol Facility (KMe Facility)**  
**St. James, St. James Parish, Louisiana**

Date  
**June 2023**

Prepared by  
**Ramboll US Consulting, Inc.**

Agency Interest No.  
**194165**

**REVISED AIR QUALITY IMPACT ASSESSMENT  
IN SUPPORT OF THE KME OPTIMIZATION  
PROJECT: ADDENDUM TO APPLICATION FOR A  
SIGNIFICANT MODIFICATION TO  
TITLE V PERMIT NO. 2560-00295-V4 AND  
AN INITIAL PSD PERMIT**



# REVISED AIR QUALITY IMPACT ASSESSMENT

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## ATTACHMENTS TO REVISED AQIA

- Attachment E-2 Lists of Offsite Inventories
- Attachment E-4 Electronic Modeling Files

## 1. Introduction

Koch Methanol St. James, LLC (Koch) operates the Koch Methanol Plant (KMe Plant) and the adjacent Koch Methanol Terminal (KMe Terminal), collectively known as the KMe Facility, located in St. James, St. James Parish, Louisiana. In November 2022, Koch submitted an application to the Louisiana Department of Environmental Quality seeking to consolidate the KMe Plant and KMe Terminal into a single Title V permit, to revise certain existing emissions limits, and to authorize the construction of the KMe Optimization Project (November 2022 Application).

On February 1, 2023, Koch submitted an addendum to portions of the November 2022 Application to the LDEQ (the February 2023 Addendum). The February 2023 Addendum included revisions to emissions calculations for several emission units. As a result of these emissions revisions, the predicted ambient impacts were re-evaluated.

An Air Quality Impact Assessment (AQIA) was conducted as one of the PSD review requirements conservatively applied as discussed in Part 3 of the November 2022 Application. The results of the modeling were used to assess potential off-property impacts in relation to PSD Significant Impact Levels (SILs) for Class II areas and to show that emissions would not cause or contribute to an exceedance of the applicable National Ambient Air Quality Standards (NAAQS) or the PSD Increment levels. An additional impacts analysis, Class I screening analysis, and ozone impacts analysis were also performed. These analyses were revised to reflect the emissions changes represented in the February 2023 Addendum in an updated AQIA submitted as part of the February 2023 Addendum.

The November 2022 AQIA also addressed increases of allowable emissions of Louisiana Toxic Air Pollutants (LTAPs), specifically ammonia and methanol, greater than their respective Minimum Emission Rates (MERs). Dispersion modeling was used to evaluate the impacts of the proposed ammonia and methanol increases and demonstrated that such impacts would not cause or contribute to an exceedance of the applicable Louisiana Ambient Air Standards for those pollutants. While other LTAP species may have proposed emissions increases exceeding MERs, review of the emissions sources for those species indicated that all or a portion of those LTAP emissions increases were a result of the combustion of Group 1 virgin fossil fuels and that any non-exempt portions did not exceed MERs. Therefore, emissions increases of species other than ammonia and methanol were exempt from the requirements of Louisiana Administrative Code Title 33, Chapter 51, per the special provisions provided in LAC 33:III:5105.B.3. No revisions to LTAP modeling were required as a result of the emission changes represented in the February 2023 Addendum.

Koch is submitting this updated AQIA to revise the 1-hour NO<sub>2</sub> modeling to reflect the recharacterization of the boiler operations. In the February 2023 AQIA, the

boiler was modeled at a rate of 5.25 lb/hr NO<sub>x</sub> emissions, with up to 100 hours of potentially higher emissions treated as an intermittent emissions scenario and thus not included in the NO<sub>2</sub> modeling. A review of boiler operations indicates that emissions of greater than 5.25 lb/hr NO<sub>x</sub> can occur more frequently than 100 hours per year. Accordingly, Koch is submitting this revised AQIA with a higher 1-hour NO<sub>x</sub> emission rate to account for these operations. As discussed herein, this updated analysis demonstrates that the KMe Facility emissions will not cause or contribute to an exceedance of the 1-hour NO<sub>2</sub> NAAQS.

The only pollutant and averaging period with emissions changes for this AQIA update is 1-hour NO<sub>2</sub>. No changes have been made to annual NO<sub>x</sub> emissions, emissions of other criteria pollutants, or emissions of LTAP species. Therefore, this AQIA update will focus exclusively on impacts of 1-hour NO<sub>2</sub> emissions.

## 2. AQIA UPDATE METHODOLOGY

### 2.1 PSD AQIA Update Approach

As with the November 2022 AQIA and February 2023 AQIA update, the current updates were performed using dispersion modeling techniques in accordance with the EPA's Guideline on Air Quality Models (codified as Appendix W to 40 CFR Part 51, hereafter referred to as the Guideline)<sup>1</sup>, LDEQ Air Quality Modeling Procedures, and EPA guidance memoranda highlighted in the November 2022 AQIA.

In this revised AQIA, differences between this update and the February 2023 AQIA update are highlighted. The boiler maximum hourly NO<sub>x</sub> emission rate, a densification of a portion of the receptor grid, and changes in the off-site sources modeled as part of the 1-hour NO<sub>2</sub> full impact NAAQS analysis are the only modeling inputs that were changed with this update, and all methodologies that were approved with the Protocol for the November 2022 AQIA (see Appendix A of the November 2022 AQIA) were followed with this updated modeling. Sections of the February 2023 AQIA update are updated herein as needed with the details reflecting the revised 1-hour NO<sub>2</sub> modeling. If there are no changes to a particular component of the previous AQIAs, the details of the common components are not included in this document and the reader is referred to the February 2023 AQIA update and/or the November 2022 AQIA, as appropriate. Furthermore, table, figure, and attachment numbers have been kept the same as the November 2022 AQIA and February 2023 AQIA update for ease of reference.

#### 2.1.1 Dispersion Model Selection and Application

The rationale for the dispersion modeling approach is the same as that contained in the November 2022 AQIA and February 2023 AQIA update.

#### 2.1.2 Modeling Procedures

As with the November 2022 AQIA and February 2023 AQIA update, AERMOD (version 22112) was utilized to calculate concentrations using the regulatory defaults in addition to the options and data discussed herein and in the previous AQIAs.

##### 2.1.2.1 Model Setup and Application

The model options selected were the same as those used in the November 2022 AQIA and February 2023 AQIA update.

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<sup>1</sup> United States Environmental Protection Agency (USEPA). 2017. Revision to the Guideline on Air Quality Models 40 CFR Part 51 Appendix W. January 17, 2017.

### **2.1.2.2 Emissions and Averaging Periods**

The revised modeling reported in this AQIA was performed solely for NO<sub>2</sub> at the 1-hour averaging period. Modeling of the annual NO<sub>2</sub> impacts and those of other criteria pollutants have not changed since the February 2023 AQIA update.

### **2.1.2.3 NO<sub>x</sub>-to-NO<sub>2</sub> Chemical Transformations**

The treatment of NO<sub>x</sub>-to-NO<sub>2</sub> transformations was the same as that used in the November 2022 AQIA.

### **2.1.2.4 Intermittent Sources**

As with the November 2022 AQIA and February 2023 AQIA update, the following approach was taken for the treatment of intermittent sources:

- Intermittent sources and scenarios with operations of up to 100 hours per year were excluded from the 1-hour NO<sub>2</sub> modeling, and
- Intermittent sources and scenarios with operations of greater than 100 hours per year, but up to 500 hours per year, were included in the modeling with an annualized emissions rate.

The difference in implementation of the intermittent source techniques versus the February 2023 AQIA update is that of the boiler.

Previously, the boiler had been modeled with a 1-hour NO<sub>x</sub> emission rate of 5.25 lb/hr, based on the hourly average of the tons per year emission limit proposed for the boiler. This modeling excluded up to 100 hours per year of intermittent emissions from the boiler at a higher hourly rate.

Review of boiler operating scenarios indicates that boiler NO<sub>x</sub> emissions of greater than 5.25 lb/hr occur more frequently than 100 hours per year. The plant is designed for high-fire boiler rates, primarily during startup periods, and lower-fire boiler rates during periods of normal/typical operation. Boiler emission rates can exceed 5.25 lb/hr during periods of high-fire rates, even when the selective catalytic reduction is in operation and the unit is performing within design specifications on a lb/MMBtu NO<sub>x</sub> basis. Therefore, a NO<sub>x</sub> limit of 15 lb/hr is appropriate to account the majority of boiler operations.

During intermittent periods, the boiler may experience emissions of greater than 15 lb/hr. Hourly emissions from the boiler during these intermittent periods could reach as high as 108.9 lb/hr. In this AQIA update, this rate is used for up to 500 hours per year of intermittent operations from the boiler. These emissions are annualized as described in the approved protocol and as shown below.

The revised boiler NO<sub>x</sub> emission rate used for 1-hr NO<sub>2</sub> NAAQS modelling is calculated as follows:

- A rate of 15 lb/hr, used for 8,260 hours of the year, to represent the highest 1-hour NO<sub>x</sub> emission rate under base conditions, and
- A rate of 108.9 lb/hr, used for 500 hours of the year, to represent the highest intermittent 1-hour NO<sub>x</sub> emission rate.

The result of this calculation is a new 1-hour NO<sub>x</sub> emission rate of 20.36 lb/hr for the boiler, which is the average of the 15 lb/hr for 8,260 hours per year and 108.9 lb/hr for 500 hours per year.

### **2.1.2.5 Emission Rates**

The maximum 1-hour NO<sub>x</sub> emission rates for the modeled sources are summarized in Table E-3 below. Sources at the facility that do not emit NO<sub>x</sub> are excluded from the table. The boiler is the only source with a change to the maximum 1-hour NO<sub>x</sub> emission rate since the February 2023 AQIA.

<b>Table E-3: Koch Methanol St. James – Updated 1-Hour NOx Emission Rates for Significant Impact and Full Impact Analyses</b>			
<b>Source</b>	<b>Source ID</b>	<b>AERMOD ID</b>	<b>NOx Emissions</b>
			<b>Short-term (lb/hr)</b>
Steam Methane Reformer <sup>a</sup>	SMR	M1_SMR	17.25
Auxiliary Boiler <sup>b</sup>	BLR	M1_BLR	20.36
Flare 1	FLR	M1_F1_ST	523.60
Emergency Generator <sup>c</sup>	EGEN	M1_EGEN	--
Fire Pump 1 <sup>c</sup>	FWP-01	M1_FP1	--
Fire Pump 2 <sup>c</sup>	FWP-02	M1_FP2	--
Fire Pump 3 <sup>c</sup>	FWP-03	M1_FP3	--
Admin Building Generator <sup>c</sup>	EGEN2	M1ADGEN	--
Generac 1 <sup>c</sup>	E.GEN01	T1_EGEN1	--
Generac 2 <sup>c</sup>	E.GEN02	T1_EGEN2	--
Vapor Combustion Unit	RTLOAD	VCU	9.31

**Notes:**

<sup>a</sup> Short-term NOx emissions modeled at annualized rate. While higher NOx emission rates may occur for short periods during periods of startup/shutdown, these periods are 100 hours or fewer per year. Therefore, the higher short-term rates are treated as intermittent.

<sup>b</sup> As discussed in Section 2.1.2.4, the rate is based on short-term NO<sub>2</sub> emissions of up to 108.9 lb/hr for up to 500 hr/yr. These emissions are annualized and included in the model. The remaining 8,260 hours of the year use a 1-hour NOx emission limit of 15 lb/hr.

<sup>c</sup> Intermittent source operating 100 hours per year or fewer. NOx emissions excluded from NO<sub>2</sub> short-term analysis.

### **2.1.2.6 Stack Parameters**

Stack parameters including locations, stack heights, exhaust temperatures and velocities, and diameters are the same as those used in the November 2022 AQIA and February 2023 AQIA update.

### **2.1.2.7 Building Downwash and Good Engineering Practice Analysis**

The parameters of the buildings included in the downwash calculations, and the procedure used to determine the projected downwash parameters, are the same as those used in the November 2022 AQIA and February 2023 AQIA update.

### **2.1.2.8 Receptor Locations**

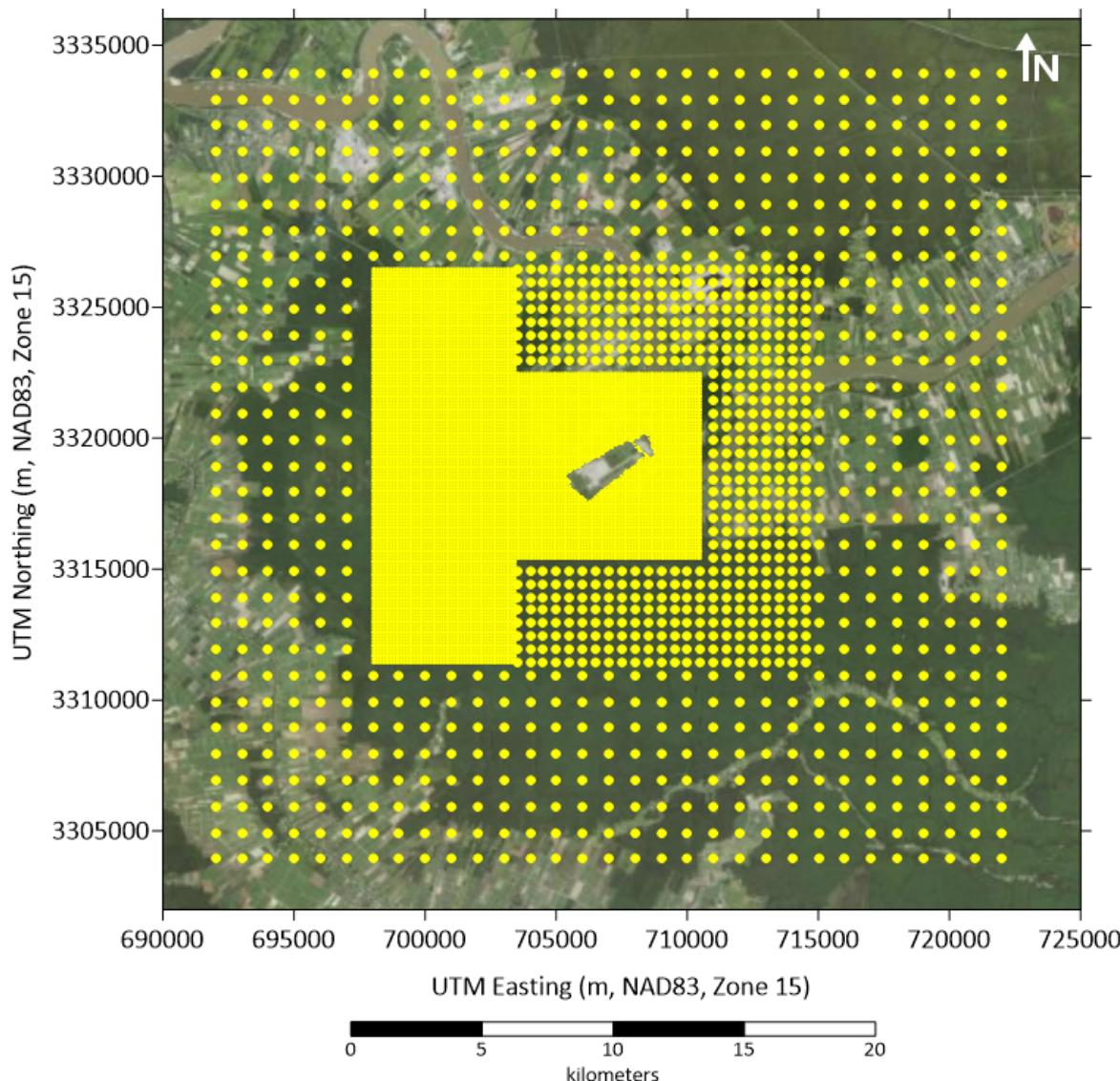
The updated significant impact analysis in the February 2023 AQIA update was initially performed on the same receptor grid used in the November 2022 AQIA with the following receptor spacing:

- 100 m along the property fenceline/boundary;
- 100 m on the innermost grid, extending 1,000 m from the facility;
- 500 m on an intermediate grid, extending 5,000 m from the facility;
- 1,000 m on the outermost grid, extending 10,000 m from the facility.

With the emissions rates modeled for this update, modeled concentrations exceeded the SIL for 1-hour NO<sub>2</sub> at a number of receptors to the west of the facility in the coarser receptor grids in addition to receptors on the fenceline/property boundary or 100 m grid. In the November 2022 AQIA, all receptors exceeding the SIL were either on the fenceline/property boundary or in the 100 m grid.

To ensure the region of 1-hour NO<sub>2</sub> SIL exceedances was fully evaluated, an additional grid of 100-m spaced receptors was placed in the area of the additional exceedances. The additional 100-m gridded receptors encompassed the region in which SIL exceedances on the intermediate grid were found and extended out at least an additional 500 m in each direction. No SIL exceedances occurred on the edge of the additional grid, so the additional receptors were sufficient to capture the region of the additional SIL exceedances.

The receptors used in the 1-hour NO<sub>2</sub> modeling are illustrated in updated Figure E-3.



**Figure E-3: Koch Methanol St. James – PSD Receptor Grids Including Additional 1-Hour NO<sub>2</sub> Receptors**

#### 2.1.2.9 Land Use

The land use analysis was the same as that used in the November 2022 AQIA and February 2023 AQIA update.

#### 2.1.2.10 Meteorological Data

The meteorological data was the same as that used in the November 2022 AQIA and February 2023 AQIA update.

### 2.1.3 1-Hour NO<sub>2</sub> Significant Impact Analysis

The proposed 1-hour NO<sub>2</sub> emissions from the KMe Facility were modeled as part of the updated significant impact analysis.

Ambient concentrations of 1-hour NO<sub>2</sub> due to modeled emissions sources were predicted using AERMOD. Maximum short-term concentrations were obtained for comparison with the SIL<sup>2</sup>. For the 1-hour NO<sub>2</sub>, EPA's interim SIL (4 percent of the NAAQS) was applied.<sup>3</sup>

If pollutant concentrations exceed the SIL, then further evaluation is required to compare impacts to the Class II PSD Increment and the NAAQS. The results of the significant impact analysis are discussed in Section 2.2 below.

#### **2.1.4 Preconstruction Monitoring Analysis**

The only pollutant and averaging period with updated emissions in this AQIA revision is 1-hour NO<sub>2</sub>, and 1-hour NO<sub>2</sub> does not have a significant monitoring concentration. Therefore, no changes to conclusions regarding preconstruction monitoring analysis occurred as a result of these updates.

#### **2.1.5 NAAQS Assessment**

Based on the results of the significant impact analysis, refined modeling, including emissions from nearby sources, was performed to assess impacts for the 1-hour NO<sub>2</sub> NAAQS since the significant impact analysis showed that modeled 1-hour NO<sub>2</sub> impacts exceed the SIL for this standard. The results of the 1-hour NO<sub>2</sub> NAAQS analysis and related discussion are presented in Section 2.4.2 below. The only changes to this assessment from the February 2023 AQIA update other than the boiler emission rate revisions and inclusion of additional receptors were the inclusion of additional offsite sources due to the significant impact area increasing, and removal of the South Louisiana Methanol offsite sources as South Louisiana Methanol has notified LDEQ that it is no longer pursuing the project and has requested that LDEQ rescind its Title V and PSD permits.<sup>4</sup>

#### **2.1.6 PSD Class II Increment Consumption**

There is no PSD Increment associated with 1-hour NO<sub>2</sub>; therefore, PSD increment analysis was not required for this update.

### **2.2 Significant Impact Analysis**

The first phase of the AQIA update – the significant impact analysis – re-modeled 1-hour NO<sub>2</sub> for the project sources.

The results of the updated significant impact analysis for 1-hour NO<sub>2</sub> showed the maximum modeled concentrations were over the corresponding SIL (See Table E-

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<sup>2</sup> The highest of the 5-year receptor averages of the maximum AERMOD-predicted concentrations each year at each receptor is used for comparison with the 1-hour NO<sub>2</sub> SIL.

<sup>3</sup> General Guidance for Implementing the 1-hour NO<sub>2</sub> National Ambient Air Quality Standard in Prevention of Significant Deterioration Permits, Including an Interim 1-hour NO<sub>2</sub> Significant Impact Level. June 28, 2010 EPA Memorandum.

<sup>4</sup> <https://edms.deq.louisiana.gov/app/doc/view?doc=13671037>.

7). Thus, an updated full-impact analysis was performed for this standard, and the results and discussions are presented in Section 2.4 below.

A USB drive containing all updated modeling files for the significant impact analysis is included in Attachment E-4.

<b>Table E-7: Significant Impact Analysis – Updated Modeling Results</b>						
<b>Pollutant</b>	<b>Averaging Period</b>	<b>Maximum Modeled Concentration<sup>a</sup> (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>SIL (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>&gt; SIL?</b>	<b>Monitoring De Minimis Concentration (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Is Pre-construction Monitoring Required?</b>
NO <sub>2</sub>	1-hour	13.47 <sup>b</sup>	7.5	Yes	None	N/A

**Notes:**

<sup>a</sup> Modeled concentrations represent the maximum highest first high (H1H) value averaged over five years.

<sup>b</sup> Tier 3 (OLM) was used for 1-hour modeling.

## 2.3 Secondary Formation of PM<sub>2.5</sub>

Since the February 2023 AQIA update, no changes have been made to emissions of PM<sub>2.5</sub>, nor have changes of emissions been made to the annual totals of NO<sub>x</sub> or SO<sub>2</sub> used in the PM<sub>2.5</sub> secondary formation analysis. Therefore, the PM<sub>2.5</sub> secondary formation analysis has not changed since the February 2023 AQIA update.

## 2.4 NAAQS Analysis

### 2.4.1 Significant Impact Area (SIA) Determination and Offsite Source Inventories

Since the result of the updated significant impact analysis for 1-hour NO<sub>2</sub> was over the respective SIL, an updated full impact analysis was performed for this standard.

The full impact NAAQS analysis requires the determination of the SIA, which is defined as a circle around the facility with a radius equal to the distance from the center of the facility to the furthest off-property receptor at which a modeled concentration exceeded the SIL in the screening analysis. Once the SIA has been determined, all sources that emit the pollutant of concern and fall inside this radius, plus a predetermined distance, are considered nearby sources and must be included in the model. As indicated in the approved protocol, the source inventory radius for inclusion of nearby sources is the SIA plus 20 km for major sources (i.e., facilities with PTE or actual emissions > 100 TPY for the pollutant under review), and the SIA plus 15 km for minor sources.

Following EPA guidance<sup>5</sup> and as approved in the Protocol, only those receptors within the SIA where the significant impact analysis' results exceed the relevant SIL

<sup>5</sup> Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO<sub>2</sub> National Ambient Air Quality Standard", March 1, 2011.

were included in the full impact analysis. Only at those receptors could the facility potentially contribute significantly to a modeled NAAQS exceedance.

Table E-10 below summarizes the SIA and off-property inventory radius for the 1-hour NO<sub>2</sub> full impact analysis.

<b>Table E-10: Updated NAAQS Significant Impact Areas (SIAs) and Nearby Source Inventory Radii</b>				
<b>Pollutant</b>	<b>Averaging Period</b>	<b>Maximum Significant Impact Modeling Concentration (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Significant Impact Area (km)</b>	<b>Nearby Source Inventory Radius (km)</b>
NO <sub>2</sub>	1-hour	13.47	8.0	28.0 (Major) 23.0 (Minor)

Information regarding the sources inside the off-property inventory radius was obtained from the LDEQ's Emissions Reporting and Inventory Center (ERIC). For the full impact analysis, the permitted emission rates were gathered, along with the sources' stack parameters and locations. Any missing stack parameters were resolved by either verifying with the associated permits or permit applications, assuming similar sources' parameters, or applying the default LDEQ stack parameters.

Attachment E-2 includes the source inventories that were included in the full impact NAAQS analysis.

#### **2.4.2 NAAQS Analysis Results**

For the NAAQS analysis, permitted emissions for nearby sources were included in the model, together with the proposed permitted emission rates for all KMe Facility sources. As previously noted, all KMe sources are treated as project sources for the purposes of the criteria pollutant analyses, so there were no additional on-site emissions to add. All additions to the 1-hour NO<sub>2</sub> NAAQS modeling were of offsite sources.

An offsite source inventory of permitted 1-hour NO<sub>2</sub> emissions was obtained from LDEQ's Emissions Reporting and Inventory Center (ERIC). The permitted emissions of sources within the nearby source inventory area radius were modeled for 1-hour NO<sub>2</sub> impacts, with the following exceptions:

- Sources permitted to operate 100 hours or fewer were excluded from the NAAQS analysis.
- Sources permitted to operate greater than 100 hours, but less than or equal to 500 hours, were included in the NAAQS analysis, but modeled with annualized emission rates.

- Sources at the Plains Marketing LP facility (AI 129733) were conservatively modeled at 125 percent of their PTE values as currently listed in ERIC. A portion of the Plains Terminal is used to load some of the methanol produced at the KMe facility. The modeled additional 25 percent above PTE is intended to account for potential secondary emissions from this facility that could arise from increased throughput at Plains as a result of the proposed KMe project, which is intended to achieve a 25 percent increase in design production rate.
- The tank cleaning source (EQT 0007) emission rate at the Shell Pipeline Company Acadian River Terminal (AI 200261) was adjusted to account for discrepancies between hourly and annual emission rates. (Details of the adjustment are included in Attachment E-2).
- Sources at the FG USA, LLC, Sunshine Project (AI 198351) to the north of the KMe facility, near the community of Welcome, were included at PTE emission rates. ERIC also includes permitted emission units for the originally proposed location of the FG USA, LLC facility to the south of the KMe facility. FG USA, LLC is no longer pursuing the location to the south of the KMe facility and proposed sources at that location were not included in the modeling.<sup>6</sup>
- The offsite source inventory for the November 2022 AQIA and February 2023 AQIA update contained sources from the South Louisiana Methanol facility (AI 188074). South Louisiana Methanol submitted a permit recission request to the LDEQ on February 8, 2023.<sup>7</sup> Accordingly, the South Louisiana Methanol sources were removed from the offsite inventory.

The results of the full impact analysis were compared to the NAAQS as presented in Table E-11 below. An applicable background concentration was added from a representative monitoring station. As approved in the protocol, the 1-hour NO<sub>2</sub> background from the Dutchtown monitoring station (AQS ID 22-005-0004) was utilized.

**Table E-11: Updated Full-Impact NAAQS Analysis Results**

Pollutant	Averaging Period	Modeled Concentration ( $\mu\text{g}/\text{m}^3$ )	Background Concentration ( $\mu\text{g}/\text{m}^3$ ) <sup>a</sup>	Modeled + Background ( $\mu\text{g}/\text{m}^3$ )	NAAQS ( $\mu\text{g}/\text{m}^3$ )	> NAAQS?
NO <sub>2</sub>	1-hour	126.0	56.4	182.4	188	NO

**Notes:**

<sup>a</sup> The background concentration for 1-hour NO<sub>2</sub> was based on the 2019-2021 design values for the Dutchtown Station (AQS # 22-005-0004).

<sup>6</sup> While the LDEQ ERIC database indicates permitted emission sources for FG LA LLC (AI No. 198351) to the south of the Koch site, FG LA is no longer pursuing construction at this location. The FG LA Complex is instead currently proposed to be located to the north of the Koch facility. The northern location is included as an offsite source of NOx. Please refer to EDMS Doc. No. 10878178 for a description and site map of the FG LA Site.

<sup>7</sup> <https://edms.deq.louisiana.gov/app/doc/view?doc=13671037>.

As the results above show, the updated 1-hour NO<sub>2</sub> modeling result plus its respective background concentration was below the NAAQS, thus no further NAAQS analysis was necessary for this standard.

All offsite inventories for the NAAQS analysis are included in Attachment E-2. A USB drive containing all related modeling files for the NAAQS analysis is included in Attachment E-4.

## **2.5 Class II PSD Increment Consumption Analysis**

There is no PSD increment associated with 1-hour NO<sub>2</sub>. Therefore, a Class II PSD increment analysis was not required.

## **2.6 Ozone Impacts Analysis**

The annual emissions of VOC and NOx have not changed since the February 2023 AQIA. Therefore, there are no changes to the ozone impacts MERP analysis presented with this AQIA update.

### 3. ADDITIONAL IMPACT AND CLASS I ANALYSES

The November 2022 AQIA and February 2023 AQIA update included additional analyses in accordance with PSD requirements in LAC 33:III.509.O and P. These analyses evaluated the potential air quality impacts projected for the area as a result of general commercial, residential, industrial and other growth associated with the KMe Facility as well as the potential for impairment to soils, vegetation, and visibility in the area surrounding the KMe Facility as a result of the KMe Facility and general commercial, residential, industrial and other growth associated with the KMe Facility. Analysis of the potential for impacts on nearby Class I areas was also performed. Consistent with EPA guidance, impacts from GHGs were not assessed as part of the additional impacts analysis and instead were addressed in the BACT analysis.

The revision to emissions included as part of this update is a change to the 1-hour NO<sub>x</sub> emission rate from the boiler. Annual emissions of NO<sub>x</sub> and emissions of other criteria pollutants have not changed. The previous growth analysis and conclusions provided are not affected by this change in emission rate.

The discussion of additional impacts in the February 2023 AQIA update included evaluation of the secondary NAAQS for soil and vegetation impacts, a visibility analysis, a Class I impacts analysis, and an ozone impacts analysis. The secondary NAAQS evaluated for soil and vegetation impacts included annual NO<sub>2</sub>, 24-hour PM<sub>10</sub>, and 24-hour and annual PM<sub>2.5</sub>. Emissions for these pollutants and averaging periods have not changed since the February 2023 AQIA update. Accordingly, there are no changes to the secondary NAAQS analysis for soil and vegetation impacts.

The visibility, Class I, and ozone impacts presented in the February 2023 AQIA update included some screening calculations which utilized annual emissions totals from the facility. No changes to annual emissions are being made as part of this AQIA update. Accordingly, there are no changes to these additional impacts analyses since the February 2023 AQIA update.

## 4. LTAP MODELING ANALYSIS

In the November 2022 AQIA, an analysis of PTE increases of ammonia and methanol were presented. A Step 1 modeling analysis was performed in the November 2022 AQIA and demonstrated ambient concentrations resulting from PTE increases were below 7.5% of the Louisiana Ambient Air Standards for those pollutants.

The proposed hourly PTE rate increases of these two pollutants have not changed since the November 2022 AQIA submission. Therefore, the November 2022 modeling results for ammonia and methanol are still applicable to this update, and a modeling update for ammonia and methanol was not required.

Furthermore, a review of potential emissions increases for other LTAP species indicate they are below the Minimum Emission Rate for those pollutants, or that all or a portion of the emissions increases are the result of the combustion of Group 1 virgin fossil fuels and that any non-exempt portions do not exceed MERs. Therefore, emissions increases of species other than ammonia and methanol are exempt from the requirements of Louisiana Administrative Code Title 33, Chapter 51, per the special provisions provided in LAC 33:III:5105.B.3.

Revised Air Quality Impact Assessment  
Application for a Title V Permit Significant Modification and an Initial PSD Permit

**ATTACHMENT E-2**  
**LISTS OF OFFSITE INVENTORIES**

**Attachment E-2**  
**List of Offsite Inventories**  
**Point Sources**

Agency ID	AI Name	Subject Item ID	Description	AERMOD ID	UTMx	UTMy	Elevation (m)	Emission rate(lb/hr)	Height (ft)	Temp (F)	Velocity (ft/s)	Diameter (ft)
217703	Chico C St James Compressor Station	EQT 0001	Solar Centaur Turbine	21770301	706913.8	3317365.2	1.68	3.880	35.50	908.00	211.22	3.75
129733	Plains Marketing LP - St James Terminal	EQT 0057	Boiler No. 1	12973357	707527.7	3321215.4	3.61	1.712	35.50	331.13	54.51	2.00
129733	Plains Marketing LP - St James Terminal	EQT 0058	Boiler No. 2	12973358	707527.7	3321215.4	3.61	1.712	25.00	331.13	54.51	2.00
129733	Plains Marketing LP - St James Terminal	EQT 0072	Marine Vapor Combustion Unit 3	12973372	707527.7	3321215.4	3.61	14.787	60.00	1512.00	50.00	13.00
129733	Plains Marketing LP - St James Terminal	EQT 0073	Marine Vapor Combustion Unit 4	12973373	707527.7	3321215.4	3.61	19.800	75.00	1512.00	62.00	13.00
129733	Plains Marketing LP - St James Terminal	EQT 0039	Marine Vapor Combustion Unit 1	12973339	708593.0	3320750.0	5.43	24.250	50.00	1400.00	28.00	12.00
129733	Plains Marketing LP - St James Terminal	EQT 0041	Marine Vapor Combustion Unit 2	12973341	708593.0	3320750.0	5.43	22.038	50.00	1400.00	32.08	12.00
32803	College Point Field Production Facility	EQT 0021	Glycol Dehydration Boiler	3280321	709402.0	3318498.4	4.04	0.030	15.00	500.00	30.24	0.50
32803	College Point Field Production Facility	EQT 0022	Continuous Burn Flare	3280322	709402.0	3318498.4	4.04	1.270	35.00	1800.00	19.59	0.50
32803	College Point Field Production Facility	EQT 0030	Internal Combustion Engine	3280330	709402.0	3318498.4	4.04	0.750	5.00	1100.00	121.85	0.17
32798	ExxonMobil Pipeline Co - Sugarland Pipeline Station/Terminal	EQT 0030	Marine Vapor Combustion Unit (Dock 1)	3279830	707639.1	3322011.4	4.4	4.960	60.00	1735.00	54.50	10.63
200261	Shell Pipeline Company LP - Acadian River Terminal	EQT 0007	Tank Cleaning Operations	20026107	707969.6	3322256.0	4.84	10.350	40.00	1200.00	60.30	0.50
36538	NuStar Logistics LP - St James Terminal	EQT 0005	Tank Heater	3653805	707495.8	3323505.7	5.13	1.050	25.00	450.00	16.00	1.33
36538	NuStar Logistics LP - St James Terminal	EQT 0006	Tank Heater	3653806	707495.8	3323505.7	5.13	1.050	25.00	450.00	16.00	1.33
36538	NuStar Logistics LP - St James Terminal	EQT 0007	Tank Heater	3653807	707495.8	3323505.7	5.13	1.050	25.00	450.00	16.00	1.33
36538	NuStar Logistics LP - St James Terminal	EQT 0038	Vapor Combustion Unit 1	3653838	707495.8	3323505.7	5.13	8.940	50.00	1400.00	49.90	10.00
24266	ACBL Transportation Services LLC - Convent Facility	ARE 0003	Fiberglass Repair	2426603A	709466.9	3322277.9	5.43	0.001	3.28	ambient	0.00	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0001	Portable Water Pump, 3 hp	2426601A	709466.9	3322277.9	5.43	0.010	3.28	ambient	15.38	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0002	Portable Water Pump, 3 hp	2426602	709466.9	3322277.9	5.43	0.010	3.28	ambient	15.38	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0003	Portable Water Pump, 5.5 hp	2426603B	709466.9	3322277.9	5.43	0.020	3.28	ambient	12.50	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0004	Portable Water Pump, 5.5 hp	2426604	709466.9	3322277.9	5.43	0.020	3.28	ambient	12.50	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0005	Portable Water Pump, 5.5 hp	2426605	709466.9	3322277.9	5.43	0.020	3.28	ambient	12.50	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0006	Portable Water Pump, 5.5 hp	2426606	709466.9	3322277.9	5.43	0.020	3.28	ambient	12.50	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0007	Portable Water Pump, 5.5 hp	2426607	709466.9	3322277.9	5.43	0.020	3.28	ambient	12.50	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0008	Portable Water Pump, 5.5 hp	2426608	709466.9	3322277.9	5.43	0.020	3.28	ambient	12.50	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0009	Portable Water Pump, 5.5 hp	2426609	709466.9	3322277.9	5.43	0.020	3.28	ambient	12.50	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0010	Portable Water Pump, 5.5 hp	2426610	709466.9	3322277.9	5.43	0.020	3.28	ambient	12.50	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0011	Portable Water Pump, 5.5 hp	2426611	709466.9	3322277.9	5.43	0.020	3.28	ambient	12.50	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0012	Portable Water Pump, 5.5 hp	2426612	709466.9	3322277.9	5.43	0.020	3.28	ambient	12.50	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0013	Portable Water Pump, 5.5 hp	2426613	709466.9	3322277.9	5.43	0.020	3.28	ambient	12.50	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0014	Portable Water Pump, 5.5 hp	2426614	709466.9	3322277.9	5.43	0.020	3.28	ambient	12.50	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0015	Water Pump, 5 hp	2426615	709466.9	3322277.9	5.43	0.020	3.28	ambient	12.50	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0016	Water Pump, 5 hp	2426616	709466.9	3322277.9	5.43	0.020	3.28	ambient	12.50	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0017	Water Pump, 5 hp	2426617	709466.9	3322277.9	5.43	0.020	3.28	ambient	12.50	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0018	Water Pump, 5 hp	2426618	709466.9	3322277.9	5.43	0.020	3.28	ambient	12.50	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0019	Water Pump, 5 hp	2426619	709466.9	3322277.9	5.43	0.020	3.28	ambient	12.50	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0020	Water Pump, 5 hp	2426620	709466.9	3322277.9	5.43	0.020	3.28	ambient	12.50	3.28
24266	ACBL Transportation Services LLC - Convent Facility	EQT 0022	Generator, 275 hp	2426622	709466.9	3322277.9	5.43	1.520	4.00	810.00	13.31	0.83
24266	ACBL Transportation Services LLC - Convent Facility	FUG 0001	Fugitive emissions	2426601B	709466.9	3322277.9	5.43	0.001	3.28	ambient	0.00	3.28
36538	NuStar Logistics LP - St James Terminal	EQT 0067	Vapor Combustion Unit 2	3653867	707888.9	3323975.1	5.4	43.680	60.00	1600.00	50.00	11.00
168206	College Point - St. James Field Production Facility #1	EQT 0001	Glycol Regenerator-Burner Stack	16820601	711405.0	3316710.9	1.67	0.020	12.00	1000.00	7.00	0.50
168206	College Point - St. James Field Production Facility #1	EQT 0003	Internal Combustion Engine - Exhaust Stack	16820603	711405.0	3316710.9	1.67	21.430	15.00	1000.00	186.00	0.50
23943	Ergon St James Inc - Vacherie Plant	EQT 0002	Heater	2394302	707303.5	3325105.3	4.18	3.290	20.00	1424.00	18.00	0.50
23943	Ergon St James Inc - Vacherie Plant	EQT 0013	Heater	2394313	707684.5	3325215.7	6.01	2.470	50.00	1350.00	150.00	12.50
212862	Ergon Moda St James	EQT 0021	Loading apparatus	21286221	707738.5	3325301.1	6.4	0.600	3.28	ambient	0.00	3.28
23943	Ergon St James Inc - Vacherie Plant	EQT 0014	Reserve Vapor Control Unit	2394314	707686.1	3325322.3	6.38	0.020	50.00	1350.00	150.00	12.50
2532	Mosaic Fertilizer LLC - Uncle Sam Plant	EQT 0077	E-Train Start Up Burner	253277	709268.0	3324688.0	5.52	0.438	50.00	180.00	237.00	2.50
2532	Mosaic Fertilizer LLC - Uncle Sam Plant	EQT 0074	D Train Double Absorption H2SO4 Plant	253274	709393.0	3324728.0	4.68	11.250	160.00	170.00	63.00	6.00
2532	Mosaic Fertilizer LLC - Uncle Sam Plant	EQT 0075	D Train Start Up Burner	253275	709376.0	3324745.0	4.56	0.329	30.00	180.00	180.00	2.50
2532	Mosaic Fertilizer LLC - Uncle Sam Plant	EQT 0076	E Train Double Absorption H2SO4 Plant	253276	70928							











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Agency ID	AI Name	Subject Item ID	Description	AERMOD ID	UTMx	UTMy	Elevation (m)	Emission rate(lb/hr)	Height (ft)	Temp (F)	Velocity (ft/s)	Diameter (ft)
222696	Greenfield Louisiana LLC - Greenfield Louisiana Terminal	EQT 0167	Grain Dryer	22269667	725602.0	3325815.0	4.82	3.430	76.00	ambient	4.17	3.28
1388	Atalco Gramercy LLC - Atlantic Alumina Gramercy Operations	EQT 0018	Kiln No. 3 Cold End ESP	138818	724987.5	3327860.8	3.99	145.300	129.00	490.00	46.60	8.00
1388	Atalco Gramercy LLC - Atlantic Alumina Gramercy Operations	EQT 0019	Kiln No. 1 Cold End ESP	138819	725035.2	3327836.3	4.19	75.530	129.00	438.00	41.80	8.90
1388	Atalco Gramercy LLC - Atlantic Alumina Gramercy Operations	EQT 0023	Hydrate Dryer # 1	138823	725035.2	3327836.3	4.19	1.450	129.00	1006.00	41.80	8.90
25891	Shell Pipeline Company LP - Convent Sorrento Dome	EQT 0001	Flare	2589101	711886.3	3339083.1	0.46	10.300	65.00	700.00	1.00	3.28
1388	Atalco Gramercy LLC - Atlantic Alumina Gramercy Operations	EQT 0199	Hydrate Dryer No. 2	138899	725055.0	3327965.0	3.65	2.750	129.00	145.00	92.35	3.28
1388	Atalco Gramercy LLC - Atlantic Alumina Gramercy Operations	EQT 0020	Kiln No. 2 Cold End ESP	138820	725234.7	3327844.8	4.27	88.230	129.00	547.00	45.40	8.90
20506	Enterprise Products Operating LLC - Sorrento Products Handling Terminal	EQT 0006	Flare Stack	2050606	711481.6	3339392.5	0.68	12.960	78.00	1000.00	33.00	0.33
20506	Enterprise Products Operating LLC - Sorrento Products Handling Terminal	EQT 0003	Propane Dehydrator Heater	2050603	711413.6	3339456.2	1.59	0.570	20.00	800.00	36.30	1.00
188317	Hensarling #1 Production Facility - Napoleonville Field	EQT 0010	Control Flare	18831710	684659.0	3323654.3	2.83	0.150	25.00	1500.00	428.00	0.20
1388	Atalco Gramercy LLC - Atlantic Alumina Gramercy Operations	EQT 0206	Mud Lake No. 6 Pump West	138806	725527.0	3327911.0	2.23	0.570	6.00	801.79	250.47	0.17
1388	Atalco Gramercy LLC - Atlantic Alumina Gramercy Operations	EQT 0209	Mud Lake No. 6 Pump East	138809	725666.0	3327890.0	3.42	0.570	7.50	801.79	250.47	0.25
27602	Total Marine Services of Jefferson Inc	EQT 0003	Diesel Fueled Compressor	2760203	724600.1	3307513.7	0.29	3.730	15.22	801.79	250.47	0.55
8142	Darrow Field Facility - Darrow Field	EQT 0064	Internal Combustion Engine-Exhaust Stack	814264	694463.4	3337528.6	4.26	1.760	10.00	836.00	153.00	0.50
42929	K/D Promix LLC	EQT 0001	North Heater (H-1201)	D42929001	682876.7	3321131.3	2.3	6.340	75.00	320.00	40.99	6.75
42929	K/D/S Promix LLC	EQT 0002	South Heater (H-1251)	D42929002	682876.7	3321131.3	2.3	6.340	81.60	320.00	40.99	6.90
42929	K/D/S Promix LLC	EQT 0003	Plant Flare	D42929003	682876.7	3321131.3	2.3	3.080	120.00	1832.00	65.62	2.00
42929	K/D/S Promix LLC	EQT 0007	Deethanizer Fired Reboiler (H-1351)	D42929007	682876.7	3321131.3	2.3	8.470	130.09	360.00	7.10	10.00
42929	K/D/S Promix LLC	EQT 0008	North Centaur T-4700 Turbine/Compressor (C-0201)	D42929008	682876.7	3321131.3	2.3	35.200	60.00	467.00	27.95	3.00
42929	K/D/S Promix LLC	EQT 0009	South Centaur T-4700 Turbine/Compressor (C-0101)	D42929009	682876.7	3321131.3	2.3	35.200	60.00	467.00	28.12	3.00
144688	Mt Airy Terminal LLC - Mt Airy Terminal	TRT 0001	Vapor Control Unit #1	D144688001	727315.0	3327149.0	2.42	9.460	60.00	1500.00	47.00	11.00
144688	Mt Airy Terminal LLC - Mt Airy Terminal	TRT 0002	Vapor Control Unit #2	D144688002	727322.0	3327165.0	2.37	9.460	60.00	1500.00	47.00	11.00
144688	Mt Airy Terminal LLC - Mt Airy Terminal	TRT 0003	Vapor Control Unit #3	D144688003	727330.0	3327182.0	2.29	11.600	70.00	1500.00	47.00	11.00
144688	Mt Airy Terminal LLC - Mt Airy Terminal	TRT 0006	Vapor Control Unit #5	D144688006	727338.0	3327198.0	2.24	27.990	70.00	1500.00	47.00	11.00
1388	Atalco Gramercy LLC - Atlantic Alumina Gramercy Operations	EQT 0207	East Containment Ditch Pump	D1388207	726626.0	3329020.0	3.89	1.970	7.50	801.79	250.47	0.25
1388	Atalco Gramercy LLC - Atlantic Alumina Gramercy Operations	EQT 0210	Mud Lake No. 1/2 Pump No. 1	D1388210	726626.0	3329020.0	3.89	0.650	7.50	801.79	250.47	0.25
1388	Atalco Gramercy LLC - Atlantic Alumina Gramercy Operations	EQT 0170	Containment Ditch Pump No. 1	D1388170	726801.3	3328957.2	9.26	0.770	3.00	935.00	598.40	0.20
144688	Mt Airy Terminal LLC - Mt Airy Terminal	TRT 0004	Vapor Control Unit #4	D144688004	727687.0	3328179.0	1.17	9.320	60.00	1500.00	47.00	11.00
144688	Mt Airy Terminal LLC - Mt Airy Terminal	EQT 0081	Hot Oil Heater No. 3	D144688081	727735.0	3328068.1	1.65	1.370	40.00	600.00	17.50	3.50
144688	Mt Airy Terminal LLC - Mt Airy Terminal	EQT 0074	Hot Oil Heater	D144688074	727734.0	3328215.0	1.12	1.370	40.00	600.00	17.50	3.50
144688	Mt Airy Terminal LLC - Mt Airy Terminal	EQT 0080	Hot Oil Heater No. 2	D144688080	727734.0	3328215.0	1.12	1.370	40.00	600.00	17.50	3.50
1388	Atalco Gramercy LLC - Atlantic Alumina Gramercy Operations	EQT 0211	Mud Lake No. 1/2 Pump No. 2	D1388211	727753.0	3328516.0	0.69	1.970	7.50	801.79	250.47	0.25
1388	Atalco Gramercy LLC - Atlantic Alumina Gramercy Operations	EQT 0212	Mud Lake Backup Pump	D1388212	727753.0	3328536.0	2.37	1.970	7.50	801.79	250.47	0.25
144688	Mt Airy Terminal LLC - Mt Airy Terminal	EQT 0082	Stormwater Pump Engine No. 1	D144688082	728076.0	3328840.0	1.07	1.320	19.70	960.00	222.40	0.50
144688	Mt Airy Terminal LLC - Mt Airy Terminal	EQT 0083	Stormwater Pump Engine No. 2	D144688083	728084.0	3328836.0	0.76	0.370	19.70	960.00	222.40	0.50
144688	Mt Airy Terminal LLC - Mt Airy Terminal	EQT 0149	Stormwater Pump Engine No. 3	D144688149	728180.3	3328874.8	1.2	1.570	15.22	801.79	250.47	0.55
3400	Occidental Chemical Corporation - Geismar Facility	EQT 0194	Steam Boiler, BL-904	D3400194	695024.0	3340789.0	3.51	24.900	75.00	300.00	51.00	5.67
3400	Occidental Chemical Corporation - Geismar Facility	EQT 0330	Diesel Engine No. 1	D3400330	695106.7	3340838.1	3.46	0.330	15.22	801.79	250.47	0.55
3400	Occidental Chemical Corporation - Geismar Facility	EQT 0331	Diesel Engine No. 2	D3400331	695106.7	3340838.1	3.46	0.330	15.22	801.79	250.47	0.55
3400	Occidental Chemical Corporation - Geismar Facility	EQT 0332	Diesel Engine No. 3	D3400332	695106.7	3340838.1	3.46	0.330	15.22	801.79	250.47	0.55
3400	Occidental Chemical Corporation - Geismar Facility	EQT 0193	Steam Boiler, BL-903	D3400193	695018.0	3340798.0	3.76	24.900	75.00	300.00	51.00	5.67
3400	Occidental Chemical Corporation - Geismar Facility	EQT 0299	F-1 Hex Furnace	D3400299	694413.0	3340790.0	4.69	3.000	75.00	173.00	62.00	1.67
3400	Occidental Chemical Corporation - Geismar Facility	EQT 0195	Steam Boiler, B-4	D3400195	694399.0	3340795.0	4.64	24.000	52.00	300.00	120.00	3.00
3400	Occidental Chemical Corporation - Geismar Facility	EQT 0105	F-2 Oxy Vent Furnace	D3400105	694381.0	3340793.0	4.69	2.960	80.00	155.00	77.50	2.50
3400	Occidental Chemical Corporation - Geismar Facility	EQT 0157	Dowtherm Boiler, F-202	D3400157	694366.2	3340843.7	4.22	0.140	60.00	500.00	77.20	0.33
3400	Occidental Chemical Corporation - Geismar Facility	EQT 0058	Dowtherm Boiler, F-101	D3400058	694316.1	3340932.8	4.15	0.240	60.00	500.00	58.10	0.33
1136	Shell Chemical LP - Geismar Plant	EQT 0903	EOEG-5 Thermal Oxidizer/Waste Heat Boiler	D1136903	693202.1	3340435.6	5.07	10.380	100.00	400.00	30.00	10.00
1136	Shell Chemical LP - Geismar Plant	EQT 0554	Cogeneration Unit No. 2	D1136554	694125.0	3341074.						

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Agency ID	AI Name	Subject Item ID	Description	AERMOD ID	UTMx	UTMy	Elevation (m)	Emission rate(lb/hr)	Height (ft)	Temp (F)	Velocity (ft/s)	Diameter (ft)
1136	Shell Chemical LP - Geismar Plant	EQT 0256	Marine Vapor Recovery Flare	D1136256	691886.0	3340160.0	2.36	4.360	40.00	1600.00	1.08	7.00
1136	Shell Chemical LP - Geismar Plant	EQT 0355	Regeneration Gas Heater, F-S431	D1136355	693237.5	3341021.8	5.52	1.120	132.00	755.00	8.91	2.60
1136	Shell Chemical LP - Geismar Plant	EQT 0360	Regeneration Gas Heater, F-S430	D1136360	693242.6	3341024.7	5.5	1.110	130.00	1420.00	8.68	3.50
1136	Shell Chemical LP - Geismar Plant	EQT 0408	Ultra Low Pressure K.O. Pot Bypass, V-S804	D1136408	693234.4	3341037.2	5.46	0.010	125.00	80.00	1.70	0.30
1136	Shell Chemical LP - Geismar Plant	EQT 0357	Therminol Furnace, F-S801	D1136357	693228.9	3341043.5	5.45	14.420	185.00	325.00	15.04	8.80
1136	Shell Chemical LP - Geismar Plant	EQT 0464	D-Regeneration Gas Heater, F-S2440	D1136464	693923.0	3341437.1	4.87	0.520	75.00	1000.00	19.52	1.50
1136	Shell Chemical LP - Geismar Plant	EQT 0862	AO-4 Syltherm Furnace, F-S4881	D1136862	693967.5	3341461.0	4.76	2.360	103.97	654.57	40.99	4.36
1136	Shell Chemical LP - Geismar Plant	EQT 0411	Elevated Flare, A-S720A	D1136411	693605.9	3341271.9	4.73	105.130	149.00	1732.00	65.60	5.00
1136	Shell Chemical LP - Geismar Plant	EQT 0412	Ground Flare, A-S730	D1136412	693605.9	3341271.9	4.73	73.440	152.10	995.67	35.33	7.71
1136	Shell Chemical LP - Geismar Plant	EQT 0465	P-Regeneration Gas Heater, F-S2430	D1136465	693919.1	3341441.3	4.86	0.430	75.00	1000.00	14.84	1.50
1136	Shell Chemical LP - Geismar Plant	EQT 0466	Syltherm Furnace, F-S2801	D1136466	693895.3	3341470.8	4.89	19.550	100.00	275.00	19.99	4.60
1136	Shell Chemical LP - Geismar Plant	EQT 0481	Syltherm Furnace, F-S2881	D1136481	693902.7	3341479.8	4.87	5.580	100.00	275.00	22.92	5.00
1136	Shell Chemical LP - Geismar Plant	EQT 0880	Elevated Flare, A-AU701	D1136880	694046.5	3341667.5	4.81	105.130	150.00	1832.00	65.62	1.00
1136	Shell Chemical LP - Geismar Plant	EQT 0559	Effluent Pump Diesel Driver DP-T202	D1136559	693458.3	3341376.0	5.64	8.370	20.00	1100.00	103.00	0.50
122402	IMTT-Geismar - Geismar Logistics Center	EQT 0158	Boiler No. 2	D122402158	692715.0	3341070.5	6.37	0.190	7.00	260.00	11.40	1.67
122402	IMTT-Geismar - Geismar Logistics Center	EQT 0159	Boiler No. 3	D122402159	692715.0	3341070.5	6.37	0.190	7.00	260.00	11.40	1.67
2049	BASF Corp - Geismar Site	EQT 0784	Aniline Plant Incinerator (Y500)	D2049784	692290.0	3340887.5	6.82	15.000	39.00	250.00	15.10	1.88
2049	BASF Corp - Geismar Site	EQT 0801	Aniline Plant Wastewater Treatment System	D2049801	692290.0	3340887.5	6.82	4.060	110.00	203.00	55.00	1.00
2049	BASF Corp - Geismar Site	EQT 0802	Aniline Plant Flare (Y501)	D2049802	692290.0	3340887.5	6.82	25.760	75.00	1832.00	65.60	3.46
2049	BASF Corp - Geismar Site	EQT 0806	Aniline II Plant Flare (Y502)	D2049806	692290.0	3340887.5	6.82	2.100	100.00	1832.00	65.60	3.23
2049	BASF Corp - Geismar Site	EQT 0810	Aniline I Plant Flare (Y503)	D2049810	692290.0	3340887.5	6.82	2.100	79.00	1832.00	65.60	3.23
122402	IMTT-Geismar - Geismar Logistics Center	EQT 0157	Boiler No. 1	D122402157	692228.5	3340873.2	6.99	0.190	7.00	260.00	11.40	1.67
122402	IMTT-Geismar - Geismar Logistics Center	EQT 0160	Boiler No. 4	D122402160	692228.5	3340873.2	6.99	0.190	7.00	260.00	11.40	1.67
122402	IMTT-Geismar - Geismar Logistics Center	EQT 0125	DMA Emergency Flare	D122402125	692611.0	3341173.1	6.57	0.060	50.00	1100.00	3.20	0.20
122402	IMTT-Geismar - Geismar Logistics Center	EQT 0060	Thermal Oxidizer No. 2	D122402060	692818.0	3341295.3	6.36	77.290	40.00	1100.00	122.00	0.50
27281	Bridgeline Holdings LP - Napoleonville Storage Facility	EQT 0015	Flare	D27281015	679673.1	3322120.9	1.27	0.350	26.00	1600.00	0.13	1.17
2049	BASF Corp - Geismar Site	EQT 0325	Thermal Oxidizer TO-330	D2049325	692862.1	3341648.8	5.43	2.110	60.00	175.00	14.10	1.50
27281	Bridgeline Holdings LP - Napoleonville Storage Facility	EQT 0005	Caterpillar 3616TALE130 Compressor Engine	D27281005	679620.0	3322012.8	1.64	8.240	39.00	838.00	135.00	2.17
27281	Bridgeline Holdings LP - Napoleonville Storage Facility	EQT 0003	Waukesha 12V-AT25GL Compressor Engine Stack 2A	D27281003	679602.0	3322012.5	1.64	5.260	39.00	845.00	80.78	2.00
27281	Bridgeline Holdings LP - Napoleonville Storage Facility	EQT 0004	Waukesha 12V-AT25GL Compressor Engine Stack 2B	D27281004	679602.0	3322012.5	1.64	5.260	39.00	845.00	80.78	2.00
27281	Bridgeline Holdings LP - Napoleonville Storage Facility	EQT 0001	Waukesha 12V-AT25GL Compressor Engine Stack 1A	D27281001	679602.0	3322012.9	1.64	5.260	39.00	845.00	80.78	2.00
27281	Bridgeline Holdings LP - Napoleonville Storage Facility	EQT 0002	Waukesha 12V-AT25GL Compressor Engine Stack 1B	D27281002	679602.0	3322012.9	1.64	5.260	39.00	845.00	80.78	2.00
8142	Darrow Field Facility - Darrow Field	EQT 0001	Glycol Regenerator-Burner Stack	M8142001	694496.0	3337680.7	3.87	0.020	10.00	500.00	4.70	0.50
8142	Darrow Field Facility - Darrow Field	EQT 0004	Control Flare	M8142004	694496.0	3337680.7	3.87	1.600	25.00	1832.00	65.60	0.55
11416	Bridgeline Holdings LP - Sorrento Underground Gas Storage Facility	EQT 0004	White Superior GTLB Engine (G-100)	M11416004	713593.4	3339393.4	1.41	9.840	35.00	800.00	63.00	1.50
11416	Bridgeline Holdings LP - Sorrento Underground Gas Storage Facility	EQT 0005	White Superior GTLB Engine (G-200)	M11416005	713593.4	3339393.4	1.41	9.840	35.00	800.00	63.00	1.50
11416	Bridgeline Holdings LP - Sorrento Underground Gas Storage Facility	EQT 0006	White Superior GTLB Engine (G-300)	M11416006	713593.4	3339393.4	1.41	4.730	35.00	800.00	63.00	1.50
11416	Bridgeline Holdings LP - Sorrento Underground Gas Storage Facility	EQT 0009	Glycol Reboiler (C-810)	M11416009	713593.4	3339393.4	1.41	0.290	27.00	750.00	27.40	1.17
11416	Bridgeline Holdings LP - Sorrento Underground Gas Storage Facility	EQT 0010	Glycol Reboiler (C-820)	M11416010	713593.4	3339393.4	1.41	0.290	27.00	750.00	27.40	1.17
27834	ExxonMobil Pipeline Company LLC - Sorrento Storage Facility	EQT 0003	Flare	M27834003	713077.4	3339783.5	0.31	37.420	50.00	1832.00	65.60	2.70
32818	Petroleum Fuel & Terminal Co - Mt Airy Terminal	EQT 0032	Boiler No. 4	M32818032	726595.3	3327380.2	3.05	10.000	50.00	600.00	99.10	3.00
25004	Acadian Gas Storage Facility	EQT 0001	Superior 12SGTB Compressor Engine No. 1	M25004001	683172.4	3321742.3	2.01	6.610	44.00	790.00	129.09	1.50
25004	Acadian Gas Storage Facility	EQT 0002	Superior 12SGTB Compressor Engine No. 2	M25004002	683172.4	3321742.3	2.01	6.610	44.00	790.00	129.09	1.50
25004	Acadian Gas Storage Facility	EQT 0007	Triethylene Glycol Reboiler No. 1	M25004007	683172.4	3321742.3	2.01	0.120	27.00	700.00	10.62	1.00
25004	Acadian Gas Storage Facility	EQT 0008	Triethylene Glycol Reboiler No. 2	M25004008	683172.4	3321742.3	2.01	0.120	27.00	700.00	10.62	1.00
115476	Oakley Field Facility	EQT 0001	Line Heater-Burner Stack	M115476001	686860.2	3305952.1	1.15	0.020	15.00	500.00	1.66	1.00
115476	Oakley Field Facility	EQT 0002	Heater Treater - Vent (J Aron #2)	M115476002	686860.2	3305952.1	1.15	0.050	24.00	500.00	14.41	0.50
115476	Oakley Field Facility	EQT 0015										

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**List of Offsite Inventories**  
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Agency ID	AI Name	Subject Item ID	Description	AERMOD ID	UTMx	UTMy	Elevation (m)	Emission rate(lb/hr)	Height (ft)	Temp (F)	Velocity (ft/s)	Diameter (ft)
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0166	Platformer Interheater No. 5 (12-1403)	M3165166	731188.7	3327519.3	4.04	34.740	199.95	500.00	28.38	9.00
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0168	LSR Hydrotreater Charge Heater (08-1401)	M3165168	731125.4	3327980.2	4.18	2.240	114.00	643.00	75.46	1.75
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0171	Boiler No. 1 (Unit 42) (42-1601)	M3165171	731096.0	3328102.8	3.67	61.140	205.00	332.00	10.62	12.90
2049	BASF Corp - Geismar Site	EQT 0317	Cogeneration Unit No. 1	M2049317	692860.1	3342311.8	5.82	235.000	60.00	400.00	18.40	12.20
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0169	LSR Hydrotreater Stripper Reboiler (08-1402)	M3165169	731152.2	3327980.7	4.08	1.020	114.00	408.00	48.27	2.17
209489	Garyville Refining Logistics LLC	EQT 0090	Marine Vapor Combustion Unit	M209489090	731533.0	3326907.0	5.41	55.940	70.00	1350.00	39.00	10.50
2049	BASF Corp - Geismar Site	EQT 0318	Cogeneration Unit No. 2	M2049318	692839.1	3342331.8	5.63	78.860	86.00	305.00	63.00	11.50
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0170	ROSE Deasphalting Heater (07-1401)	M3165170	731149.6	3328103.9	3.78	16.970	179.00	649.00	44.37	7.72
2049	BASF Corp - Geismar Site	EQT 0310	No. 1 Boiler (B-1)	M2049310	692891.1	3342386.7	5.75	95.890	75.00	400.00	48.20	6.41
2049	BASF Corp - Geismar Site	EQT 0311	No. 2 Boiler (B-2)	M2049311	692880.0	3342402.8	5.23	95.890	75.00	400.00	48.20	6.41
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0145	Steam Generator (Old Boiler No. 1) (36-1601-01)	M3165145	731345.5	3327707.5	3.58	47.810	150.00	321.00	37.28	8.00
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0146	Steam Generator (Old Boiler No. 2) (36-1601-02)	M3165146	731345.5	3327707.5	3.58	52.790	150.00	321.00	37.28	8.00
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0341	TDU Furnace	M3165341	731321.1	3327810.8	3.62	0.980	42.65	1200.00	93.96	1.70
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0340	TDU Thermal Oxidizer	M3165340	731320.9	3327817.9	3.73	0.600	49.20	1600.00	9.70	4.00
2049	BASF Corp - Geismar Site	EQT 0235	Polyol Plant Flare	M2049235	692000.4	3341997.4	7.57	5.810	90.00	1832.00	65.62	3.00
2049	BASF Corp - Geismar Site	EQT 0368	Specialty Amines Offgas Muffle Combuster	M2049368	693033.3	3342623.9	5.58	1.820	80.00	1800.00	4.10	2.08
2049	BASF Corp - Geismar Site	EQT 0367	Specialty Amines Waste Fuel Boiler	M2049367	693041.1	3342634.4	5.59	5.850	80.00	350.00	32.10	1.00
2049	BASF Corp - Geismar Site	EQT 0343	TDI Flare	M2049343	692805.9	3342592.3	5.51	1.500	200.00	1832.00	65.62	1.30
209047	Linde Inc - Geismar HYCO Syngas Separation Unit	EQT 0002	Hot Flare	M209047002	693328.0	3342896.0	5.95	110.840	135.00	1832.00	65.62	2.76
2049	BASF Corp - Geismar Site	EQT 0215	Acetylene Gas Flare FS-499	M2049215	692992.0	3342737.0	5.43	42.340	213.25	1832.00	65.62	0.83
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0163	FCC Charge Heater (25-1401)	M3165163	731399.7	3328241.3	3.61	18.870	209.33	305.00	15.03	9.61
2049	BASF Corp - Geismar Site	EQT 0214	Synthesis Gas Flare FS-399	M2049214	692980.0	3342756.0	5.24	91.090	213.25	1832.00	65.62	4.50
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0376	GDU NGL Feed Heater (55-1404)	M3165376	731263.0	3328648.0	3.52	4.800	213.25	635.00	26.86	4.58
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0154	Platfromer Debutanizer Reboiler (12-1402)	M3165154	731534.0	3327931.7	3.69	11.690	200.00	630.00	40.31	4.75
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0152	Naphtha Hydrotreater Stripper Reboiler (11-1402)	M3165152	731532.1	3327942.8	3.72	11.780	192.00	670.00	28.14	5.75
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0151	Naphtha Hydrotreater Charge Heater (11-1401)	M3165151	731529.0	3327951.7	3.72	10.580	192.00	760.00	33.13	5.50
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0181	GDU Stabilizer Reboiler (55-1403)	M3165181	731271.9	3328661.0	3.59	4.020	213.25	535.00	37.55	5.25
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0180	GDU/HDS Finishing Reactor Feed Heater (55-1402)	M3165180	731274.9	3328667.3	3.63	5.850	213.25	590.00	16.79	5.50
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0179	GDU Splitter Reboiler (55-1401)	M3165179	731282.1	3328657.9	3.62	17.630	213.25	560.00	28.64	8.50
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0337	Unit 15 Heaters (15-1401 and 15-1403)	M3165337	731553.3	3328019.6	3.64	14.940	150.00	373.33	30.11	7.96
2049	BASF Corp - Geismar Site	EQT 0213	Cracked Gas Flare FS-199B	M2049213	692926.0	3342803.0	5.71	70.360	197.00	1832.00	65.62	4.00
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0155	Distillate Hydrotreater Reactor Charge Heater (14-1401)	M3165155	731538.1	3328079.8	3.67	6.370	213.25	688.00	52.75	5.71
2049	BASF Corp - Geismar Site	EQT 0212	Cracked Gas Flare FS-199A	M2049212	692943.0	3342815.0	5.71	70.360	197.00	1832.00	65.62	4.00
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0156	Distillate DHT Low Pressure Stripper Reboiler (14-1402)	M3165156	731542.0	3328087.8	3.63	8.760	172.00	643.00	40.88	5.21
2049	BASF Corp - Geismar Site	EQT 0211	Preheater H080F	M2049211	692917.0	3342808.0	5.13	4.000	158.00	415.00	12.10	4.75
2049	BASF Corp - Geismar Site	EQT 0208	Preheater H080C	M2049208	692942.0	3342825.0	4.89	4.000	158.00	415.00	12.10	4.75
2049	BASF Corp - Geismar Site	EQT 0210	Preheater H080E	M2049210	692912.0	3342815.0	5.27	4.000	158.00	415.00	12.10	4.75
2049	BASF Corp - Geismar Site	EQT 0207	Preheater H080B	M2049207	692937.0	3342832.0	4.87	2.400	158.00	415.00	12.10	4.75
2049	BASF Corp - Geismar Site	EQT 0209	Preheater H080D	M2049209	692907.0	3342822.0	3.98	2.400	158.00	415.00	12.10	4.75
2049	BASF Corp - Geismar Site	EQT 0206	Preheater H080A	M2049206	692932.0	3342839.0	4.08	4.000	158.00	415.00	12.10	4.75
2049	BASF Corp - Geismar Site	EQT 0587	PYR/NVP/PVP Plants Flare	M2049587	692167.2	3342444.3	6.39	0.490	35.00	1832.00	65.62	0.35
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	ARE 0013	Laboratory Building	M3165013	731185.0	3329226.0	2.46	0.600	32.00	200.00	36.97	0.25
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0167	Sats. Gas Hot Oil Heater (22-1401)	M3165167	731720.5	3327844.5	3.77	5.170	155.96	600.00	25.63	6.50
1468	Rubicon LLC - Geismar Facility	EQT 0089	Polyols Thermal Oxidizer GI-7000	M1468089	691827.8	3342300.9	7.02	16.500	110.00	1562.00	24.00	5.75
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0430	Rental Boiler No. 1	M3165430	731574.0	3328306.0	3.70	9.050	14.17	599.00	21.08	6.47
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0431	Rental Boiler No. 2	M3165431	731574.0	3328306.0	3.70	9.050	14.17	599.00	21.08	6.47
2049	BASF Corp - Geismar Site	EQT 0078										

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Agency ID	AI Name	Subject Item ID	Description	AERMOD ID	UTMx	UTMy	Elevation (m)	Emission rate(lb/hr)	Height (ft)	Temp (F)	Velocity (ft/s)	Diameter (ft)
1468	Rubicon LLC - Geismar Facility	EQT 1039	Aniline-II Boiler HN-2201	M1468039	692057.7	3342644.2	6.29	78.560	104.64	350.00	76.99	2.63
2049	BASF Corp - Geismar Site	EQT 0846	Thermal Combustor	M2049846	692725.2	3343014.5	5.59	1.920	40.00	1758.00	21.10	2.50
2049	BASF Corp - Geismar Site	EQT 0866	FA High Pressure Flare	M2049866	692725.2	3343014.5	5.59	20.800	100.00	1832.00	65.62	1.17
2218	Linde Inc - Linde Geismar HYCO Facility 595	EQT 0019	Methanol Flare	M2218019	691480.6	3342349.7	6.40	0.370	95.00	1832.00	65.62	1.17
1468	Rubicon LLC - Geismar Facility	EQT 1269	MDI 1 Emergency Generator GZ-42000	M1468269	691673.6	3342468.9	7.28	0.315	9.00	820.00	351.00	0.42
1468	Rubicon LLC - Geismar Facility	EQT 1270	MDI 2 Emergency Generator GZ-62000	M1468270	691673.6	3342468.9	7.28	0.315	9.00	820.00	351.00	0.42
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0205	Thermal Oxidizer No. 5 (234-1405)	M3165205	731788.0	3328335.0	3.73	9.790	213.25	600.00	37.23	4.50
1468	Rubicon LLC - Geismar Facility	EQT 1035	Nitric Acid Vent Scrubber AS-1417	M1468035	691692.0	3342493.0	7.10	0.030	24.00	100.00	0.38	0.67
1468	Rubicon LLC - Geismar Facility	EQT 1036	NB-I Benzene Scrubber AS-2113	M1468036	691969.5	3342678.1	6.36	2.820	102.50	95.00	24.40	0.33
2049	BASF Corp - Geismar Site	EQT 0468	MDI-2 Flare	M2049468	692393.4	3342941.7	5.69	0.510	100.00	1832.00	65.62	1.00
2218	Linde Inc - Linde Geismar HYCO Facility 595	EQT 0009	Tank Farm Flare	M2218009	691383.5	3342360.7	7.05	0.030	35.00	1832.00	65.62	0.25
31513	Air Liquide Large Industries US LP - Geismar Facility	EQT 0003	Boiler	M31513003	693267.1	3343428.7	5.36	5.920	50.00	315.00	45.00	3.50
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0292	Crude Heaters (210-1401/1402)	M3165292	731990.1	3328021.7	4.22	22.420	213.20	379.00	27.45	11.29
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0293	Vacuum Tower Heaters (210-1403/1404)	M3165293	731990.1	3328021.7	4.22	10.160	213.20	371.00	33.40	7.29
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0294	Platformer Heater (212-1401)	M3165294	731990.1	3328021.7	4.22	68.260	213.25	331.00	21.53	17.17
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0300	Blast Yard Diesel Engine	M3165300	731990.1	3328021.7	4.22	0.070	6.20	400.00	159.30	0.42
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0330	FCC Cat Pond Diesel Engine	M3165330	731990.1	3328021.7	4.22	0.500	10.00	1052.00	20.50	0.33
209489	Garyville Refining Logistics LLC	EQT 0087	Emergency Flare Station	M209489087	731990.1	3328021.7	4.22	6.820	50.00	1832.00	65.62	0.67
209489	Garyville Refining Logistics LLC	EQT 0088	Tank Farm Frac Pump	M209489088	731990.0	3328021.9	4.22	0.017	10.00	1052.00	20.50	0.33
330	Marathon Petroleum Co LP	EQT 0023	Hot Oil Heater	M330023	731700.1	3328800.0	3.14	2.860	20.00	300.00	25.00	1.50
201358	MPLX Terminals LLC - Garyville Terminal	EQT 0029	Portable Flare	M201358029	731700.1	3328800.0	3.14	1.380	20.00	1832.00	65.62	3.87
201358	MPLX Terminals LLC - Garyville Terminal	EQT 0034	Portable Combustor Unit	M201358034	731700.1	3328800.0	3.14	1.380	13.00	1832.00	65.62	7.50
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0201	Coker Charge Heater (205-1401)	M3165201	731800.2	3328605.9	3.63	32.700	213.25	725.00	33.76	9.33
31513	Air Liquide Large Industries US LP - Geismar Facility	EQT 0001	Cogen Unit #1	M31513001	693220.0	3343457.7	5.84	98.580	100.00	225.00	80.00	15.00
31513	Air Liquide Large Industries US LP - Geismar Facility	EQT 0002	HRSG/Duct Burner	M31513002	693220.0	3343457.7	5.84	82.200	100.00	225.00	80.00	15.00
1468	Rubicon LLC - Geismar Facility	EQT 0235	Maleic Anhydride Incinerator HN-59706	M1468235	691567.0	3342572.0	7.56	15.630	100.00	347.00	186.00	4.00
2218	Linde Inc - Linde Geismar HYCO Facility 595	EQT 0036	Reformer Flue Gas Stack Unit No. 6	M2218036	691268.6	3342398.5	6.85	180.000	110.00	700.00	18.99	10.00
2218	Linde Inc - Linde Geismar HYCO Facility 595	CON 0003	Catalytic Converter Vent	M2218003	691251.3	3342393.9	7.12	0.350	21.70	200.00	0.00	3.28
31513	Air Liquide Large Industries US LP - Geismar Facility	EQT 0015	Reactivation Heater No. 4	M31513015	693196.1	3343479.3	5.47	1.000	25.00	585.00	58.00	4.36
1468	Rubicon LLC - Geismar Facility	EQT 0210	North Waste Heat Boiler HN-5472/Quench Scrubber AS-5472	M1468210	691552.3	3342584.6	7.31	5.400	100.00	150.00	63.36	2.00
31513	Air Liquide Large Industries US LP - Geismar Facility	EQT 0004	Reactivation Heater No. 1	M31513004	693247.2	3343529.7	6.14	0.490	65.00	620.00	30.00	1.50
2218	Linde Inc - Linde Geismar HYCO Facility 595	EQT 0007	CO Flare	M2218007	691198.6	3342422.7	7.16	0.040	58.00	1832.00	65.62	0.83
31513	Air Liquide Large Industries US LP - Geismar Facility	EQT 0005	Reactivation Heater No. 2	M31513005	693220.9	3343558.8	6.60	0.500	65.00	620.00	30.00	1.50
2218	Linde Inc - Linde Geismar HYCO Facility 595	EQT 0004	Reformer Flue Gas Stack, Unit 1	M2218004	691334.1	3342550.6	7.04	22.790	75.00	250.00	40.00	3.92
1468	Rubicon LLC - Geismar Facility	EQT 1302	Temporary Emergency Air Compressor	M1468302	691504.0	3342685.0	7.45	3.900	8.00	1126.00	165.80	0.67
2218	Linde Inc - Linde Geismar HYCO Facility 595	EQT 0016	Reformer Flue Gas Stack, Unit 3	M2218016	691256.0	3342545.6	7.01	14.690	40.00	275.00	35.40	2.50
2218	Linde Inc - Linde Geismar HYCO Facility 595	EQT 0014	Unit 1 MEA Flare	M2218014	691308.6	3342591.7	7.47	0.030	85.00	1832.00	65.62	0.83
3165	Marathon Petroleum Company LP - Louisiana Refining Division - Garyville Refinery	EQT 0357	Coker Charge Heater (305-1401)	M3165357	732004.0	3328680.0	3.55	25.170	200.00	300.00	21.16	8.83

**Attachment E-2**  
**List of Offsite Inventories**  
**Area Sources**

Agency ID	AI Name	Subject Item ID	Description	AERMOD ID	UTMx	UTMy	Elevation (m)	Emission rate(lb/hr)	Height (ft)	Length (ft)	Width(ft)
2416	CF Industries Nitrogen LLC - Donaldsonville Nitrogen Complex	FUG 0021	No. 4 Nitric Acid Plant /No. 3 UAN Fugitives	241621A	697374.7	3330574.4	4.85	0.23	3.28	359	169
2416	CF Industries Nitrogen LLC - Donaldsonville Nitrogen Complex	FUG 0014	No. 2 Nitric Acid Plant Fugitives	241614	697054.1	3330762.3	4.58	0.23	3.28	200	133
2416	CF Industries Nitrogen LLC - Donaldsonville Nitrogen Complex	FUG 0010	No. 1 Nitric Acid Plant Fugitives	241610A	696981.1	3330732.3	4.71	0.23	3.28	200	133
2416	CF Industries Nitrogen LLC - Donaldsonville Nitrogen Complex	FUC 0003	No. 3 Nitric Acid Plant/No. 2 UAN Fugitives	241603	696577.1	3330823.3	4.46	0.23	3.28	300	133

Revised Air Quality Impact Assessment  
Application for a Title V Permit Significant Modification and an Initial PSD Permit

**ATTACHMENT E-4**  
**ELECTRONIC MODELING FILES**