Certified Mail No.

Activity No.: PER20220006
Agency Interest No. 194165

Mr. Josh Wiggins
VP of Manufacturing & Plant Manager
Koch Methanol St. James, LLC
5181 Wildcat St.
St. James, LA 70086

RE: Part 70 Operating Permit Significant Modification
Koch Methanol St. James, LLC - Koch Methanol Facility
St. James, St. James Parish, Louisiana

Dear Mr. Wiggins:

This is to inform you that the permit significant modification for the above referenced facility has been approved under LAC 33:III.501. The permit is both a state preconstruction and Part 70 Operating Permit. The submittal was approved on the basis of the emissions reported and the approval in no way guarantees the design scheme presented will be capable of controlling the emissions as to the types and quantities stated. A new application must be submitted if the reported emissions are exceeded after operations begin. The synopsis, data sheets and conditions are attached herewith.

It will be considered a violation of the permit if all proposed control measures and/or equipment are not installed and properly operated and maintained as specified in the application.

Operation of this facility is hereby authorized under the terms and conditions of this permit. This authorization shall expire at midnight on the _____ of _____, 2028, unless a timely and complete renewal application has been submitted six months prior to expiration. Terms and conditions of this permit shall remain in effect until such time as the permitting authority takes final action on the application for permit renewal. The permit number and agency interest number cited above should be referenced in future correspondence regarding this facility.

Please be advised that pursuant to provisions of the Environmental Quality Act and the Administrative Procedure Act, the Department may initiate review of a permit during its term. However, before it takes any action to modify, suspend or revoke a permit, the Department shall, in accordance with applicable statutes and regulations, notify the permittee by mail of the facts or operational conduct that warrant the intended action and provide the permittee with the opportunity to demonstrate compliance with all lawful requirements for the retention of the effective permit.

Done this _____ day of _____, 2023.

Permit No.: 2560-00295-V6

Sincerely,

Bliss M. Higgins
Assistant Secretary
BMH:alr
c: EPA Region VI

AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Koch Methanol Facility
Agency Interest No.: 194165
Koch Methanol St. James, LLC
St. James, St. James Parish, Louisiana

I. Background

Koch Methanol St James, LLC (Koch) owns and 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. The KMe Plant and the KMe Terminal constitute a single major stationary source under the Part 70 Operating Permits Program. The KMe Plant previously operated under Title V Permit No. 2560-00295-V5, issued on February 23, 2023, and the KMe Terminal previously operated under Title V Permit No. 3169-V3, issued on August 11, 2022.

II. Origin

A permit application was submitted by Koch Methanol St. James, LLC on November 2, 2022, requesting a Part 70 operating permit significant modification. Additional information dated February 1, February 8, March 20, March 22, March 28, May 2, and June 19, 2023, was also received.

III. Description

Koch requested to increase the KMe Plant's design production rate to approximately 6,200 metric tons per day (MTPD) of refined methanol. Methanol is produced using the licensed Lurgi MegaMethanol® technology. The methanol production process consists of three main steps: synthesis gas (syngas) production, crude methanol synthesis, and methanol distillation.

The Lurgi MegaMethanol® process is an advanced, highly efficient technology for converting natural gas to methanol. The technology's main processing features include oxygen-blown natural gas reforming in combination with steam reforming, two-step methanol synthesis in water and gas-cooled reactors, and the capability to recycle hydrogen to adjust synthesis gas composition.

Syngas Production

Syngas production by the combined reforming method starts with desulfurization and pre-reforming of natural gas feedstock. After pre-reforming, the natural gas feedstock is split into two branches, with one branch of the gas stream routed to the steam methane reformer (SMR) unit. The SMR uses a catalyst in the presence of steam to reform methane into a raw syngas stream, composed primarily of hydrogen, carbon monoxide, and carbon dioxide. The SMR contains two independent fuel/burner systems comprised of the SMR furnace and

auxiliary burner firing in the SMR exhaust duct. The SMR auxiliary burners provide additional heat to the SMR exhaust stream, similar to duct burners, to facilitate heat recovery.

The other branch of the pre-reformed natural gas stream bypasses the SMR and is mixed with the raw syngas exiting the SMR unit. The combined stream is then routed to the secondary reforming process, the Autothermal Reformer (ATR), where oxygen is introduced as the reforming agent. The syngas stream leaving the secondary reforming process contains water as a by-product of the reforming process. Heat is recovered from this stream through various process heaters, and the water is knocked out as process condensate. This condensate contains traces of dissolved gases and ammonia, which are stripped off in the Process Condensate Stripper and sent to the SMR unit for destruction. The dry syngas is then routed to the methanol synthesis unit.

Methanol Synthesis

The methanol synthesis process utilizes two synthesis steps in series: twin water-cooled reactors followed by a gas-cooled reactor. The isothermal, water-cooled reactors use a highly reactive catalyst to partially convert the syngas to methanol. The heat of reaction from this process is drawn off by water cooling and is recovered to produce steam (which can be used to generate electricity via a condensing turbine, depending on the energy balance within the facility). The partially converted process gas stream is routed to the gas-cooled methanol reactor, where it is further reacted while passing over a catalyst bed.

The crude methanol is cooled and condensed, and a purge gas stream is separated before the liquid crude methanol is routed to the methanol distillation unit. Hydrogen can be separated from the purge gas; the hydrogen-rich stream contains minor amounts of non-reactive components in the form of nitrogen and any remaining methane. This stream is used for pre-reformer and synthesis loop catalyst reduction and can also be recycled to methanol synthesis and for desulfurization. The remaining purge gas is combusted as fuel gas in the SMR and Boiler. The crude methanol is routed to the methanol distillation unit.

Methanol Distillation

The crude methanol contains impurities together with unconverted reactants and traces of dissolved gases from the methanol synthesis stage. The stream is degassed in an expansion vessel, which rids the crude methanol stream of much of the dissolved N_2, CO_2, CO, H_2, and methane. This expansion gas stream is combusted in the SMR as fuel. Volatile light ends and the remainder of the dissolved gases are removed in the pre-run column, which separates them into an overhead vapor stream. The overhead vapor stream, called distillation off gas,

is combusted as fuel in the SMR. The less volatile, higher boiling components are further separated in two methanol columns in series. The first of the methanol columns operates at high pressure, while the second operates at atmospheric pressure. The overhead stream from the high-pressure column is used to heat the bottoms of the atmospheric pressure column. The overhead streams from both columns are condensed and refluxed back to their respective columns, with some portion of each split off as the product methanol. Product grade methanol exiting the distillation process is sent to TK-04002A/B storage tanks prior to further storage and distribution at the KMe Terminal. An additional storage tank containing raw methanol (TK-04001) is used to reprocess methanol that does not meet product specifications and to process other methanol-containing streams. A chiller/scrubber system controls emissions from the raw methanol storage tank and two product grade storage tanks. Methanol from the scrubber water is recovered by pumping the scrubber water to the expansion vessel or directly to the raw methanol tank for reprocessing.

KMe Terminal

The purpose of the KMe Terminal is to store and transfer methanol product. The facility consists of four internal floating roof methanol product tanks (TK-26-202A, TK-26-202B, TK-26-202C, and TK-26-202D); methanol truck and rail loading operations; and infrastructure for transferring methanol to and from marine loading operations at the St. James Terminal, which is located adjacent to the site and owned and operated by Plains Marketing LP.

Permit Modifications

KMe Facility Consolidation

With this permit modification, Koch requested to incorporate all permitted KMe Terminal sources from Permit No. 3169-V3 (AI 213599) into the KMe Plant's Title V permit in order to consolidate the KMe Terminal and the KMe Plant into a single Title V permit for the KMe Facility. Some sources previously permitted in the KMe Terminal Title V permit shared a TEMPO ID with the permitted KMe Plant sources. Koch requested that all of the KMe Terminal sources be assigned new TEMPO IDs. Koch also requested that "Fugitive Emissions – Tanks and Terminals" from the KMe Terminal's Title V permit be combined with "Fugitive Emissions – Process Units" under one fugitive emissions source for the KMe Facility.

KMe Optimization Project

The KMe Optimization Project ("the Project") consists of a number of activities, including a raw material feed upgrade, improvements to plant cooling capability, and other equipment

upgrades with the collective primary goal of increasing utilization of existing assets and methanol production. The Project is intended to achieve a 25% increase in the KMe Facility's design production rate from approximately 4,950 MTPD to 6,200 MTPD of refined methanol.

The raw material feed upgrade includes constructing ethane gas piping, a vaporizer, and associated equipment to inject ethane into the process natural gas feed to the SMR (EQT0001). Ethane will be brought into the facility from an existing third-party ethane gas pipeline. Piping, a metering skid, and associated piping components will be constructed, owned, and operated by the third party. KMe will connect to the third-party metering skid at a point of demarcation within the KMe Facility's property. A shell and tube exchanger using low pressure steam, owned and operated by KMe, will be used to vaporize the ethane prior to injection into the process natural gas feed line to the SMR.

To meet the additional cooling needs anticipated for the Project, KMe plans to make upgrades to exiting fin fan coolers as well as the existing cooling tower (EQT0007). This work may involve upgrades to or replacement of the fin fans for improved cooling capability at increased production rates. The cooling tower upgrades are anticipated to include addition of a new cooling tower cell and new or upgraded pumps for increased cooling tower circulation rates above current capability.

A modification to the Flare (EQT0003) design may occur as a result of the Project. The flare will either remain a non-assisted flare or may be modified to incorporate a steam-assisted design.

Other equipment upgrades, such as changes to or addition of piping fugitive components (FUG0001) for process safety valve upgrades, improved process monitoring, or new or changed piping configurations or process flows may be made as part of the Project. Zoloscan technology utilizing advanced combustion monitoring may be installed on the SMR. Additionally, process equipment such as heat exchangers or burners may be replaced, physically modified, or added to accommodate the increased production rates.

SMR, Boiler, PCS Vent CAP (EPN SMR BLR PCS CAP, GRP0002)

The SMR, Boiler, PCS Vent CAP accounts for the average hourly and the annual emissions from the Steam Methane Reformer (Emission Point Number (EPN) SMR, EQT0001); Auxiliary Boiler (EPN BLR, EQT0002); and Process Condensate Stripper Vent (EPN PCSVENT, RLP0024). Koch requested to make the following changes to the SMR, Boiler, PCS Vent CAP:

- Increase the annual average and maximum firing rates of the SMR, which includes the combined firing of the SMR primary burners and auxiliary burners, to 1,725 MMBtu/hr and 1,794 MMBtu/hr, respectively;

- Increase the boiler's maximum firing rate from 997 MMBtu/hr to 1,100 MMBtu/hr;

- Revise the NO_X, CO, and VOC emission limits to represent the increased SMR and boiler firing rates and to account for emission control catalyst end-of-run performance at the higher firing rates, taking into account the results of a stack test performed near start-of-run (i.e., close to the date when the SCR and VOC/CO emission control catalysts were newly installed) for the SMR and boiler;

- Increase the maximum hourly and annual permitted ammonia emissions for the SMR and maximum hourly ammonia emissions for the boiler to account for additional ammonia injection which may be needed to meet the required NO_X limits at the end of the SCR catalyst run;

- Revise the methanol emission limits for the SMR and boiler based on an anticipated methanol mass flow rate considering the process stream methanol content and 99.9% destruction efficiency;

- Increase emission limits for the Process Condensate Stripper Vent to account for the increase in facility-wide methanol production; and

- Revise average hourly emission rates for the SMR, Boiler, PCS Vent CAP (EPN SMR BLR PCS CAP, GRP0002) to be based on 8,760 hours/year.

Other equipment emission limit changes resulting from the Project and/or updated calculations:

- Revise the emission limits for the Plant Flare (EPN FLR, EQT0003) to account for the increase in the flare load as well as increased supplemental natural gas that would be required to meet the net heating value requirements under the applicable regulations in the event a steam-assisted flare design is needed;

- Revise the Cooling Water Tower (EPN CWT, EQT0007) emissions basis, including the circulating rate, the drift factor, the total dissolved solids (TDS) concentration, and the VOC calculation methodology, and add CO and GHG emissions;

- Combine the fugitive emissions from both of the permits into a single emission source, Fugitive Emissions – KMe Facility (EPN FUG, FUG0001);

- Revise the fugitive emissions to account for added fugitive components related to ethane gas piping, equipment associated with that work, and other piping changes associated with the Project;

- Revise emissions for the Methanol Scrubber (EPN D-04001, EMS0001). The Methanol Scrubber controls emissions from the Raw Methanol Tank (EPN TK-04001, EQT0008) and two (2) Pure Methanol Intermediate Tanks (EPN TK-04002A, EQT0013 and EPN TK-04002B, EQT0017). Emission limit increases are due to the increase in facility-wide methanol production; updates to the tanks' physical parameters to reflect as-built design; the use of updated AP-42 Section 7.1 "Organic Liquid Storage Tanks" (June 2020) emission factors, equations, and algorithms; and updated calculations for the Raw Methanol Tank (EPN TK-04001, EQT0008) to account for emissions from a methanol stream that is currently routed to the tank from an expansion vessel;

- Increase the throughput of the Ammonia Tank (EPN TK-NH3, EQT0014) to 440,000 gal/yr of aqueous ammonia. The additional ammonia is required for the SCR to handle the increase in SMR and Auxiliary Boiler firing rates. Emissions were also updated due to the updated AP-42 Section 7.1 emission factors;

- Update the emissions for Wastewater Treatment (EPN WWT, FUG0002) to reflect a 25% increase in wastewater flow associated with the production rate increase;

- Increase emission limits of Condensate Trap Vents (EPN CTVENT, RLP0025) to account for the increase in facility-wide methanol production;

- Revise the emissions limits for the Methanol Transfer and Product Tank CAP (EPN MTPCAP, GRP0001). This emission cap accounts for emissions from the four (4) internal floating roof methanol product tanks (EPNs TK-26-202A, TK-26-202B, TK-26-202C, and TK-26-202D), including tank cleanings and tank landings, as well as emissions from truck and railcar loading operations (EPN RT LOAD). A Vapor Control Unit (VCU) is used to control VOC emissions from railcar and truck loading operations.

  Due to the increase in facility-wide methanol production, the emission limits for the emissions sources and activities included in the MTPCAP will increase as a result of an increase in methanol throughput through the tanks, trucks, and railcars. Additionally, the tanks' physical parameters were updated to reflect as-built design; emissions

calculations were revised to utilize the updated AP- 42 Section 7.1, "Organic Liquid Storage Tanks" (June 2020) emission factors, equations, and algorithms; the VCU's enrichment gas average flow rate was adjusted to account for both current operations and increased production; and the NOx emission factor was updated to reflect the vendor guarantee;

- Update the emissions for the General Condition XVII Activity for the Portable Thermal Oxidizer (GCXVII-15), which controls emissions during tank cleanings, to account for the cleaning of the internal floating roof tanks located at the KMe Terminal;

- Update the emissions for the General Condition XVII Activity for Railcar Cleanings (GCXVII-31) to account for an increase in methanol being loaded out via railcars;

- Update the maximum hourly emissions for the Admin Building Generator (EQT 0026) to account for condensable $PM_{10}/PM_{2.5}$ emissions;

- Update the emission calculations for all natural gas combustion sources to include speciation of inorganic and organic toxic air pollutants to supplement the prior speciated emission calculations; and

- Revise the average hourly emission rates calculation methodology for the Methanol Transfer and Product Tank Cap (EPN MTPCAP, GRP0003).

Specific Requirement (SR) Additions and Revisions

- Add a requirement to develop and implement a fenceline monitoring program for VOC and/or methanol;

- Remove the phrase "(Evaporative Loss from the Cleaning of Storage Tanks)" from the compliance demonstration method SR (formerly SR No. 28 in Permit No. 2560-00295-V5) for the common requirement group Raw Methanol Tank, Pure Methanol Intermediate Tanks, and Methanol Scrubber (EPN TNKS/SCRBBR, CRG0004);

- Add CO to the compliance demonstration method for NO_X SR (formerly SR No. 71 in Permit No. 2560-00295-V5) for the Steam Methane Reformer (EPN SMR, EQT0001). This addition will add the following two sentences to the requirements: "The CO CEMS shall comply with the Performance Specification 4A of 40 CFR 60, Appendix B, and be evaluated in accordance with Procedure 1 of 40 CFR 60, Appendix F," and "CO

emissions shall be calculated monthly based on the lb CO/MMBtu as determined by the CEMS and actual operating rates of the SMR";

- Revise the VOC, PM_{10}, and $PM_{2.5}$ compliance demonstration method SR (formerly SR No. 72 in Permit No. 2560-00295-V5) for the Steam Methane Reformer (EPN SMR, EQT0001) to specify that PM_{10}, $PM_{2.5}$, and VOC shall be calculated monthly based on the actual operating rates of the SMR during the calendar month and the emission factors derived from the performance test;

- Remove references to CO from the compliance demonstration SR (formerly SR No. 73 in Permit No. 2560-00295-V5) for the Steam Methane Reformer (EPN SMR, EQT0001) since KMe will be using a CEMS for compliance demonstration;

- Remove references to CO from the compliance demonstration SR (formerly SR No. 125 in Permit No. 2560-00295-V5) for Auxiliary Boiler (EPN BLR, EQT0002) since KMe will be using a CEMS for compliance demonstration. Also, add the following sentence "PM_{10} and $PM_{2.5}$ shall be calculated monthly based on the actual operating rates of the Auxiliary Boiler during the calendar month and the emission factor derived from the performance test;"

- Remove references to CO from the compliance demonstration SR (formerly SR No. 126 in Permit No. 2560-00295-V5) for Auxiliary Boiler (EPN BLR, EQT0002) since KMe will be using a CEMS for compliance demonstration;

- Add a SR for compliance demonstration for CO to the Auxiliary Boiler (EPN BLR, EQT0002). This requirement states: "Compliance demonstration for CO: The permittee shall monitor and record CO emissions using a Continuous Emissions Monitoring System (CEMS) calibrated, operated, and maintained according to the manufacturer's specifications. The CO CEMS shall comply with the Performance Specification 4A of 40 CFR 60, Appendix B, and be evaluated in accordance with Procedure 1 of 40 CFR 60, Appendix F. CO emissions shall be calculated monthly based on the lb CO/MMBTU as determined by the CEMS and actual operating rates of the boiler to determine compliance with lb/hr and TPY emission limits. Measurements missed due to periods of monitor breakdown, out-of-control operations (producing inaccurate data), repair, maintenance, or calibration shall be estimated using engineering judgement;"

- Revise the SR for 40 CFR 60.665(b)(3) for Flare (EPN FLR, EQT0003) (formerly SR No. 134 in Permit No. 2560-00295-V5) to correct the reference citation in the SR from 40 CFR 60.705(c) to 40 CFR 60.705(b)(3);

- Revise the compliance demonstration requirement for Plant Emergency Generator (EPN EGEN, EQT0004) (formerly SR No. 169 in Permit No. 2560-00295-V5) by specifying that the requirement is for actual non-emergency operating hours. Also, add the following sentence: "Emissions during emergency use must be reported pursuant to LAC 33:III.919, but shall not be counted against permit limits for purposes of determining compliance";

- Revise the compliance demonstration requirements for Firewater Pump Engine No. 1, Firewater Pump Engine No. 2, Firewater Pump Engine No. 3, and Admin Building Emergency Generator (EPN FWP-01, FWP-02, FWP-03, and EGEN2; EQT0005, EQT0006, EQT0022, and EQT0026) (formerly SR Nos. 171, 173, 185, and 204 in Permit No. 2560-00295-V5) by specifying that the requirement is for actual non-emergency operating hours; and

- Revise the compliance demonstration requirements for the Methanol Transfer and Product Tank Cap (EPN MTPCAP; GRP0003) to add the following sentence: "The combustion emissions from the vapor combustion unit will be calculated as follows: VOC (from pilot and enrichment gas), PM_{10}, and $PM_{2.5}$ will be calculated using AP-42 Section 1.4-2, July 1998; CO will be calculated using AP-42 Section 1.4-1, July 1998; and NO_X will be calculated using the vendor-provided guarantee of 0.25 lb/MMBTU. Heating values shall be based on process knowledge for the full combustion stream."

Miscellaneous Revisions

- Remove the initial notification requirement [40 CFR 63.6645(f)] from Firewater Pump No. 1 (EPN FWP-01, EQT0005) and Firewater Pump No. 2 (EPN FWP-02, EQT0006), as the initial notification requirements have already been fulfilled;

- Remove the specific requirements for compliance demonstration from the two Generac SD 2000 sources (EPN E.GEN 01, EQT0033 and EPN E.GEN 02, EQT0034), as these requirements are redundant to the compliance demonstration requirement listed under CRG0007;

- Incorporate the following specific requirement revisions for the Flare (EQT0003):

- Add the applicable recordkeeping requirements under 40 CFR 60.18 and 40 CFR 63.11;

- Add the 40 CFR 60 Subpart RRR alternative monitoring requirement for flares (i.e., requirements to monitor the vent streams per 40 CFR 60.703(b)(2) of 40 CFR 60 Subpart RRR instead of complying with the monitoring requirements under 40 CFR 60 Subpart NNN); and

- Remove the specific requirement for 40 CFR 60.705(b), as the flare recordkeeping requirement is already included in the specific requirement for 40 CFR 60.705(b)(3).

- Incorporate five existing sulfuric acid tanks that were previously included as GCVXII activities into the permit as point sources and limit their annual emissions under a proposed CAP of 0.037 tpy with no proposed changes in each tank's potential to emit; and

- Incorporate five existing sulfuric acid tanks that were previously included as GCVXII activities into the permit as point sources and limit their annual emissions under a proposed CAP of 0.037 tpy with no proposed changes in each tank's potential to emit.

Permitted emissions in tons per year (tpy) are as follows:

	Before Emissions:				
Pollutant	Permit No. 2560-00295-V5	Permit No. 3169-V3	Total	After	Change
PM_{10}	49.92	0.41	50.33	76.30	+25.97
$PM_{2.5}$	48.46	0.41	48.87	75.32	+26.45
SO_2	4.65	0.04	4.69	6.16	+1.47
NO_X	87.29	9.57	96.86	152.84	+55.98
CO	92.57	3.96	96.53	181.46	+84.93
VOC	63.55	24.81	88.36	166.34	+77.98
CO_2e^*	-	-	-	1,401,096	-

* Greenhouse gas emissions (CO_2e) were not required to be permitted previously. A facility CO_2e emissions total is provided for information only and does not constitute an emissions limit. Koch shall comply with a two-tier, facility-wide 12-month rolling average GHG intensity limit as BACT as described in the Preliminary

AIR PERMIT BRIEFING SHEET
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Koch Methanol Facility
Agency Interest No.: 194165
Koch Methanol St. James, LLC
St. James, St. James Parish, Louisiana

Determination Summary and Specific Condition 8 of PSD Permit PSD-LA-851 and SR 424 of this Title V permit.

LAC 33:III.Chapter 51 Toxic Air Pollutants (TAPs):					
	Before Emissions:				
Pollutant	Permit No. 2560-00295-V5	Permit No. 3169-V3	Total	After	Change
1,4-Dichlorobenzene	0.01	-	0.01	0.01	-
2,2,4-Trimethylpentane	0.01	-	0.01	0.01	-
Acetaldehyde	0.01	-	0.01	0.01	-
Ammonia	101.22	-	101.22	120.49	+19.27
Arsenic (and compounds)	-	-	-	0.001	+0.001
Barium (and compounds)	-	-	-	0.045	+0.045
Benzene	0.03	0.02	0.05	0.06	+0.01
Cadmium (and compounds)	-	-	-	0.014	+0.014
Chromium VI (and compounds)	-	-	-	0.015	+0.015
Cobalt compounds	-	-	-	0.01	+0.01
Copper (and compounds)	-	-	-	0.008	+0.008
Ethyl benzene	<0.01	-	<0.01	0.01	-
Formaldehyde	0.19	0.01	0.20	0.49	+0.29
Hydrogen Sulfide	9.13	-	9.13	9.13	-
Manganese (and compounds)	-	-	-	0.01	+0.01
Mercury (and compounds)	-	-	-	0.003	+0.003
Methanol	44.14	23.36	67.50	140.72	+73.22
Naphthalene	0.01	-	0.01	0.01	-
n-Hexane	4.45	0.25	4.70	11.32	+6.62
Nickel (and compounds)	-	-	-	0.021	+0.021

LAC 33:III.Chapter 51 Toxic Air Pollutants (TAPs):					
	Before Emissions:				
Pollutant	Permit No. 2560-00295-V5	Permit No. 3169-V3	Total	After	Change
Sulfuric Acid*	-	-	-	0.04	+0.04
Toluene	0.02	-	0.02	0.04	+0.02
Zinc (and compounds)	-	-	-	0.30	+0.30
Total	159.23	23.64	182.87	282.767	+99.897

*Previously authorized under General Condition XVII Activity.

IV. Type of Review

This permit was reviewed for compliance with 40 CFR 70, the Louisiana Air Quality Regulations, New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP), and Prevention of Significant Deterioration (PSD).

This facility is a major source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51.

New Source Review (NSR) Applicability Analysis

The KMe Facility is located in St. James Parish, which is currently in attainment or unclassifiable for all criteria pollutants. Koch requested to revise certain existing emission limits and to authorize the construction of the KMe Optimization Project, which together will result in the stationary source's potential to emit (PTE) of NO_X, CO, and VOC increasing to greater than 100 tons/year. Thus, with this permitting action, the stationary source will become a PSD major stationary source.

Although not required because the KMe Facility is not an existing major stationary source and because the changes proposed do not themselves constitute construction of a new major stationary source, Koch requested that PSD requirements be applied as if the facility has not yet been built and to all pollutants for which the post-project facility-wide PTE will exceed PSD Significant Emission Rates.

Pollutant	Total Emissions	PSD de minimis	Review Conducted?
PM_{10}	76.30	15	Yes
$PM_{2.5}$	75.32	10	Yes
SO_2	6.16	40	No
NO_X	152.84	40[1]	Yes
CO	181.46	100	Yes
VOC	166.34	40[1]	Yes
CO_2e	1,401,096	75,000	Yes
H_2S	9.13	10	No

[1]NO_X and VOC are precursors for ozone.

Emissions of PM_{10}, $PM_{2.5}$, NO_X, CO, VOC, and CO_2e exceed their PSD significance thresholds. Therefore, consistent with the approach described above, a Best Available Control Technology (BACT) analysis was performed for existing emission units (no new emission units are proposed) with the potential to emit PM_{10}, $PM_{2.5}$, NO_X, CO, VOC, and CO_2e. BACT was determined on a case-by-case basis, with consideration given to technical feasibility and economic, environmental, and energy impacts. A PSD permit for the KMe Methanol Facility has been prepared concurrently with this permit. All PSD terms and limits have been incorporated into this permit.

V. Permit Shields

Permit shields have been established for the streamlined requirements identified in the table below. If the permittee complies with the streamlined requirement (i.e., 40 CFR 63 Subpart G), the facility will be considered to be in compliance with all of the applicable requirements subsumed under the streamlined requirement (i.e., LAC 33:III.2103 and 2107).

ID	Description		Compliance with the Provisions of	Constitutes Compliance With
EQT 0008	TK-04001	Raw Methanol Tank	40 CFR 63 Subpart G	LAC 33:III.2103
EQT 0013	TK-04002A	Pure Methanol Intermediate Tank	40 CFR 63 Subpart G	LAC 33:III.2103
EQT 0017	TK-04002B	Pure Methanol Intermediate Tank	40 CFR 63 Subpart G	LAC 33:III.2103
EQT 0029	TK-26-202A	Methanol Product Tank 2301	40 CFR 63 Subpart G	LAC 33:III.2103
EQT 0030	TK-26-202B	Methanol Product Tank 2302	40 CFR 63 Subpart G	LAC 33:III.2103
EQT 0031	TK-26-202C	Methanol Product Tank 2303	40 CFR 63 Subpart G	LAC 33:III.2103

ID	Description		Compliance with the Provisions of	Constitutes Compliance With
EQT 0032	TK-26-202D	Methanol Product Tank 2304	40 CFR 63 Subpart G	LAC 33:III.2103
EQT 0028	RT LOAD	Methanol Railcar and Tank Truck Loading Operations	40 CFR 63 Subpart G	LAC 33:III.2107

VI. Credible Evidence

Notwithstanding any other provisions of any applicable rule or regulation or requirement of this permit that state specific methods that may be used to assess compliance with applicable requirements, pursuant to 40 CFR Part 70 and EPA's Credible Evidence Rule, 62 Fed. Reg. 8314 (Feb. 24, 1997), any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed shall be considered for purposes of Title V compliance certifications. Furthermore, for purposes of establishing whether or not a person has violated or is in violation of any emissions limitation or standard or permit condition, nothing in this permit shall preclude the use, including the exclusive use, by any person of any such credible evidence or information.

VII. Public Notice

In accordance with LAC 33:III.531.A.3, a notice requesting public comment on the proposed permit was published on the department's website on **<date>**. On **<date>**, copies of the public notice were mailed to the individuals who have requested to be placed on the mailing list maintained by the Office of Environmental Services (OES). The proposed permit was submitted to EPA on <**date**>. All comments will be considered prior to a final permit decision.

VIII. Effects on Ambient Air

Emissions from the KMe Facility were reviewed by LDEQ to assure compliance with the federal national ambient air quality standards (NAAQS) for criteria pollutants and Louisiana ambient air standards (AAS) for toxic air pollutants.

AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Koch Methanol Facility
Agency Interest No.: 194165
Koch Methanol St. James, LLC
St. James, St. James Parish, Louisiana

Dispersion Model(s) Used: AERMOD

Pollutant	Time Period	Calculated Maximum Ground Level Concentration	Louisiana Toxic Air Pollutant Ambient Air Quality Standard or (National Ambient Air Quality Standard {NAAQS})
$PM_{2.5}$*	24 hour	1.01 µg/m^3	(35 µg/m^3)
	Annual	0.11 µg/m^3	(12 µg/m^3)
PM_{10}	24 hour	1.32 µg/m^3	(150 µg/m^3)
	Annual	0.16 µg/m^3	(50 µg/m^3)
NO_2	1 hour	182.4 µg/m^3**	(188 µg/m^3)
	Annual	0.40 µg/m^3	(100 µg/m^3)
CO	1 hour	1453.56 µg/m^3	(40,000 µg/m^3)
	8 hour	441.48 µg/m^3	(10,000 µg/m^3)
Ammonia	8 hour	44.04 µg/m^3	640 µg/m^3
Methanol	8 hour	72.02 µg/m^3	6240 µg/m^3

*Includes secondary formation of $PM_{2.5}$
**This reflects the results of refined NAAQS modeling since results of the SIL analysis were above the SIL. Tier 3 (OLM) was used for 1-hour modeling.

IX. General Condition XVII Activities

		Emission Rates – tons per year					
Work Activity	Schedule	PM_{10}	SO_2	NO_X	CO	VOC	H_2SO_4
[GCXVII-1] Plant Control Device Inspections	2 x/yr	-	-	-	-	<0.01	-
[GCXVII-2] Plant Control Device Services	8 x/yr	-	-	-	-	0.04	-
[GCXVII-3] Plant Equipment Cleaning	100 x/yr	-	-	-	0.60	0.60	-
[GCXVII-4] Plant Valve Maintenance	20 x/yr	-	-	-	<0.01	<0.01	-
[GCXVII-5] Plant Compressor Maintenance	3 x/yr	-	-	-	0.01	0.01	-
[GCXVII-6] Plant Filter and Strainer Changeouts	50 x/yr	-	-	-	0.03	0.03	-
[GCXVII-7] Plant Pump Maintenance	50 x/yr	-	-	-	0.05	0.05	-

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Koch Methanol Facility
Agency Interest No.: 194165
Koch Methanol St. James, LLC
St. James, St. James Parish, Louisiana

		Emission Rates – tons per year					
Work Activity	Schedule	PM_{10}	SO_2	NO_X	CO	VOC	H_2SO_4
[GCXVII-8] Plant Instrument Maintenance	300 x/yr	-	-	-	0.04	0.04	-
[GCXVII-9] Plant Catalyst Handling Operations	10 x/yr	<0.01	-	-	-	0.04	-
[GCXVII-10] Plant Sampling	8000 x/yr	-	-	-	-	0.06	-
[GCXVII-11]Plant Tank Inspections	9 x/yr	-	-	-	-	0.01	-
[GCXVII-12] Plant Piping & Heat Exchanger Draining	20 x/yr	-	-	-	0.10	0.10	-
[GCXVII-13] Plant Sump Solids Removal	52 x/yr	-	-	-	-	0.22	-
[GCXVII-14] Plant Tank Cleaning	3 x/yr	-	-	-	-	0.13	-
[GCXVII-15] Plant Portable Thermal Oxidizer*	7 x/yr	0.01	<0.01	0.18	0.15	0.01	-
[GCXVII-16] Plant Miscellaneous Painting	1 x/yr	-	-	-	-	2.13	-
[GCXVII-17] Plant Frac Tanks (35 tanks)	As needed	-	-	-	-	0.07	-
[GCXVII-19] Terminal Control Device Inspections	4 x/yr	-	-	-	-	<0.01	-
[GCXVII-20] Terminal Control Device Service	12 x/yr	-	-	-	-	0.06	-
[GCXVII-21] Terminal Equipment Cleaning	5 x/yr	-	-	-	-	0.03	-
[GCXVII-22] Terminal Valve Maintenance	5 x/yr	-	-	-	-	<0.01	-
[GCXVII-23] Terminal Filter and Strainer Changeouts	365 x/yr	-	-	-	-	0.22	-
[GCXVII-24] Terminal Pump Maintenance	24 x/yr	-	-	-	-	0.02	-
[GCXVII-25] Terminal Instrument Maintenance	1 x/yr	-	-	-	-	<0.01	-
[GCXVII-26] Terminal	100 x/yr	-	-	-	-	<0.01	-

Work Activity	Schedule	Emission Rates – tons per year PM_{10}	SO_2	NO_X	CO	VOC	H_2SO_4
Sampling							
[GCXVII-27] Terminal Tank Inspections	4 x/yr	-	-	-	-	<0.01	-
[GCXVII-28] Terminal Line Preparation	2 x/yr	-	-	-	-	0.01	-
[GCXVII-29] Terminal Sump Solids Removal	4 x/yr	-	-	-	-	0.02	-
[GCXVII-30] Terminal Miscellaneous Painting	1 x/yr	-	-	-	-	2.13	-
[GCXVII-31] Terminal Railcar Cleanings	75 cars/year	-	-	-	-	2.43	-

*The Plant Portable Thermal Oxidizer [GCXVII-15] also has the potential to emit 0.003 tpy of n-hexane.

X. Insignificant Activities

ID No.:	Description	Citation
IA-1	Plant Emergency Engine Diesel Tank (<10,000 gallons)	LAC 33:III.501.B.5.A.3
IA-2	Plant Firewater Pump No. 1 Diesel Tank (<10,000 gallons)	LAC 33:III.501.B.5.A.3
IA-3	Plant Firewater Pump No. 2 Diesel Tank (<10,000 gallons)	LAC 33:III.501.B.5.A.3
IA-4	Plant Firewater Pump No. 3 Diesel Tank (<10,000 gallons)	LAC 33:III.501.B.5.A.3
IA-5	Plant Laboratory Vents (8,000 samples/yr)	LAC 33:III.501.B.5.A.6
IA-6	Plant Admin Building Diesel Tank (<10,000 gallons)	LAC 33:III.501.B.5.A.3
IA-7	Plant Admin Building Water Heater (<= 1.8 MMBtu/hr)	LAC 33:III.501.B.5.A.1
IA-8	Terminal Emergency Generator Diesel Tank (1,295 gallons)	LAC 33:III.501.B.5.A.3

AIR PERMIT BRIEFING SHEET
AIR PERMITS DIVISION
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Koch Methanol Facility
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Koch Methanol St. James, LLC
St. James, St. James Parish, Louisiana

ID No.:	Description	Citation
IA-9	Terminal Emergency Generator Diesel Tank (1,295 gallons)	LAC 33:III.501.B.5.A.3

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Koch Methanol Facility
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Koch Methanol St James, LLC
St. James, St. James Parish, Louisiana

XI. Table 1. Applicable Louisiana and Federal Air Quality Requirements

ID	Description	LAC 33:III.Chapter																
		5▲	9	11	13	15	2103	2107	2111	2113	2115	2121	2131	2147	2153	51*	56	59*
UNF0001	Koch Methanol Facility	1	1	1	1					1						1	1	1
EQT0001	SMR - Steam Methane Reformer			2	1	3								3				
EQT0002	BLR - Auxiliary Boiler		2	2	1	3												
EQT0003	FLR - Flare			1	1	3												
EQT0004	EGEN – Plant Emergency Generator			1	1	3										2		
EQT0005	FWP-01 - Firewater Pump Engine No. 1			1	1	3										2		
EQT0006	FWP-02 - Firewater Pump Engine No. 2			1	1	3										2		
EQT0007	CWT - Cooling Water Tower				3													
EQT0008	TK-04001 - Raw Methanol Tank						1											
EQT0013	TK-04002A - Pure Methanol Intermediate Tank						1											
EQT0014	TK-NH3 - Ammonia Tank						3											
EQT0017	TK-04002B - Pure Methanol Intermediate Tank						1											
EQT0018	F-03007 - Slop Vessel						1											
EQT0022	FWP-03 - Firewater Pump Engine No. 3			1	1	3										2		
EQT0026	EGEN2 – Admin Building Emergency Generator			2	1	3										2		
EQT0027	GASTANK – Gasoline Storage Tank						1						2					
EQT0029	TK-26-202A - Methanol Product Tank 2301	1					1											
EQT0030	TK-26-202B - Methanol Product Tank 2302	1					1											
EQT0031	TK-26-202C - Methanol Product Tank 2303	1					1											

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Koch Methanol Facility
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Koch Methanol St James, LLC
St. James, St. James Parish, Louisiana

XI. Table 1. Applicable Louisiana and Federal Air Quality Requirements

ID	Description	LAC 33:III.Chapter																
		5▲	9	11	13	15	2103	2107	2111	2113	2115	2121	2131	2147	2153	51*	56	59*
EQT0032	TK-26-202D - Methanol Product Tank 2304	1					1											
EQT0028	RT LOAD – Methanol Railcar and Tank Truck Loading Operations			1	1	3		1										
EQT0033	E. GEN 01 - Generac SD 2000			1	1	3										2		
EQT0034	E. GEN 02 – Generac SD 2000			1	1	3										2		
EQT0036	TK-05006 – Sulfuric Acid Tank TK-05006																	
EQT0037	TK-05504 – Sulfuric Acid Tank TK-05504																	
EQT0038	TK-06001-17 – Sulfuric Acid Tank TK-06001-17																	
EQT0039	TK-09002-17 – Sulfuric Acid Tank TK-09002-17																	
EQT0040	TK-09006 – Sulfuric Acid Tank TK-09006																	
EMS0001	D-04001 - Methanol Scrubber						1											
RLP0024	PCSVENT – Process Condensate Stripper Vent										3							
RLP0025	CTVENT – Condensate Trap Vents										3							
FUG0001	FUG - Fugitive Emissions – KMe Facility								1			2						
FUG0002	WWT - Wastewater Treatment														3			

* The regulations indicated above are State Only regulations.

▲ All LAC 33:III.Chapter 5 citations are federally enforceable including LAC 33:III.501.C.6 citations, except when the requirement found in the "Specific Requirements" report specifically states that the regulation is State Only.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Koch Methanol Facility
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Koch Methanol St James, LLC
St. James, St. James Parish, Louisiana

KEY TO MATRIX

1 -The regulations have applicable requirements that apply to this particular emission source.
-The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.

2 -The regulations have applicable requirements that apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.

3 -The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular emission source.

Blank – The regulations clearly do not apply to this type of emission source.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Koch Methanol Facility
Agency Interest No.: 194165
Koch Methanol St James, LLC
St. James, St. James Parish, Louisiana

XI. Table 1. Applicable Louisiana and Federal Air Quality Requirements

ID	Description	40 CFR 60										40 CFR 61			40 CFR 63										40 CFR		
		A	Db	K	Ka	Kb	VVa	3N	3R	4I	4J	A	M	FF	A	F	G	H	Q	4E	4Z	5D	6C	64	68	82
UNF0001	Koch Methanol Facility	1											3	3	1	1									1	1
EQT0001	SMR - Steam Methane Reformer							1	1								1					1		2		
EQT0002	BLR - Auxiliary Boiler		1						1								1					1		2		
EQT0003	FLR - Flare							1	1						1		1							2		
EQT0004	EGEN – Plant Emergency Generator									1											1					
EQT0005	FWP-01 - Firewater Pump Engine No. 1									1											1					
EQT0006	FWP-02 - Firewater Pump Engine No. 2									1											1					
EQT0007	CWT - Cooling Water Tower															1			3					3		
EQT0008	TK-04001 - Raw Methanol Tank					2											1			3						
EQT0013	TK-04002A - Pure Methanol Intermediate Tank					2											1			3						
EQT0014	TK-NH3 - Ammonia Tank					3											3			3						
EQT0017	TK-04002B - Pure Methanol Intermediate Tank					2											1			3						
EQT0018	F-03007 - Slop Vessel					3											3			3						
EQT0022	FWP-03 - Firewater Pump Engine No. 3									1											1					
EQT0026	EGEN2 – Admin Building Emergency Generator										1										1					
EQT0027	GASTANK – Gasoline Storage Tank					3																	3			
EQT0029	TK-26-202A - Methanol Product Tank 2301			3	3	3											1			3						

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Koch Methanol Facility
Agency Interest No.: 194165
Koch Methanol St James, LLC
St. James, St. James Parish, Louisiana

XI. Table 1. Applicable Louisiana and Federal Air Quality Requirements

ID	Description	40 CFR 60										40 CFR 61			40 CFR 63									40 CFR		
		A	Db	K	Ka	Kb	VVa	3N	3R	4I	4J	A	M	FF	A	F	G	H	Q	4E	4Z	5D	6C	64	68	82
EQT0030	TK-26-202B - Methanol Product Tank 2302			3	3	3											1			3						
EQT0031	TK-26-202C - Methanol Product Tank 2303			3	3	3											1			3						
EQT0032	TK-26-202D - Methanol Product Tank 2304			3	3	3											1			3						
EQT0028	RT LOAD – Methanol Railcar and Tank Truck Loading Operations																1			3				2		
EQT0033	E. GEN 01 - Generac SD 2000									1											1					
EQT0034	E. GEN 02 – Generac SD 2000									1											1					
EQT0036	TK-05006 – Sulfuric Acid Tank TK-05006																									
EQT0037	TK-05504 – Sulfuric Acid Tank TK-05504																									
EQT0038	TK-06001-17 – Sulfuric Acid Tank TK-06001-17																									
EQT0039	TK-09002-17 – Sulfuric Acid Tank TK-09002-17																									
EQT0040	TK-09006 – Sulfuric Acid Tank TK-09006																									
EMS0001	D-04001 - Methanol Scrubber																1							2		
RLP0024	PCSVENT – Process Condensate Stripper Vent							3	3							3										
RLP0025	CTVENT – Condensate Trap Vents							3	3							3										
FUG0001	FUG - Fugitive Emissions – KMe Facility						1											1								
FUG0002	WWT - Wastewater Treatment																1									

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

Koch Methanol Facility
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Koch Methanol St James, LLC
St. James, St. James Parish, Louisiana

KEY TO MATRIX

1 -The regulations have applicable requirements that apply to this particular emission source.
-The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.

2 -The regulations have applicable requirements that apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.

3 -The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular emission source.

Blank – The regulations clearly do not apply to this type of emission source.

XII. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID	Requirement	Exempt or Does Not Apply	Explanation	Citation Describing Exemption or Non-applicability
UNF0001 Koch Methanol Facility	40 CFR 61 Subpart M – National Emission Standard for Asbestos	Does Not Apply	Regulated asbestos-containing material (RACM) was not be used in the construction of the facility.	40 CFR 61.140
	40 CFR 61 Subpart FF – National Emission Standard for Benzene Waste Operations	Does Not Apply	Facility does not have benzene in wastes, products, or by-products or intermediates subject to the requirements in 40 CFR 61 Subpart FF.	40 CFR 61.340
EQT0001 Steam Methane Reformer	LAC 33:III.1101 – Control of Air Pollution from Smoke	Exempt	Combustion units that combust only natural gas, carbon monoxide, hydrogen, and/or other gaseous fuels with a carbon to hydrogen molecular ratio of less than 0.34 are exempt from the opacity standards of LAC 33:III.1101.B.	LAC 33:III.1107.B
	LAC 33:III.Chapter 15 – Emission Standards for Sulfur Dioxide	Does Not Apply	This single point source does not have the potential to emit more than 5 tpy of sulfur dioxide.	LAC 33:III.1502.A.3
	LAC 33:III.2147 – Limiting VOC Emissions from SOCMI Reactor Processes and Distillation Operations	Does Not Apply	LAC 33:III.2147 does not apply to facilities located in St. James Parish.	LAC 33:III.2147.A.1
	40 CFR 64 – Compliance Assurance Monitoring	Exempt	The requirements of Part 64 do not apply to emission limitations or standards for which a Part 70 permit specifies a continuous compliance determination method. The permit requires NO_X and CO CEMS.	40 CFR 64.2(b)(1)(vi)

XII. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID	Requirement	Exempt or Does Not Apply	Explanation	Citation Describing Exemption or Non-applicability
EQT0002 Boiler	LAC 33:III.915 – Emission Monitoring Requirements	Exempt	Any source which is subject to a new source performance standard promulgated in 40 CFR Part 60 is exempt from the requirements of LAC 33:III.915.A. This source is subject to an NSPS regulation.	LAC 33:III.915.D
	LAC 33:III.1101 – Control of Air Pollution from Smoke	Exempt	Combustion units that combust only natural gas, carbon monoxide, hydrogen, and/or other gaseous fuels with a carbon to hydrogen molecular ratio of less than 0.34 are exempt from the opacity standards of LAC 33:III.1101.B.	LAC 33:III.1107.B
	LAC 33:III.Chapter 15 – Emission Standards for Sulfur Dioxide	Does Not Apply	This single point source does not have the potential to emit more than 5 tpy of sulfur dioxide.	LAC 33:III.1502.A.3
	40 CFR 64 – Compliance Assurance Monitoring	Exempt	The requirements of Part 64 do not apply to emission limitations or standards for which a Part 70 permit specifies a continuous compliance determination method. The permit requires NO_X and CO CEMS.	40 CFR 64.2(b)(1)(vi)
EQT0003 Flare	LAC 33:III.Chapter 15 – Emission Standards for Sulfur Dioxide	Does Not Apply	This single point source does not have the potential to emit more than 5 tpy of sulfur dioxide.	LAC 33:III.1502.A.3
	40 CFR 64 – Compliance Assurance Monitoring	Exempt	Under 40 CFR 64, the flare is not subject to CAM because it is subject to emission limitations or standards proposed by the Administrator after November 15, 1990, pursuant to section 111 or 112 of the Act.	40 CFR 64.2(b)(1)(i)

XII. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID	Requirement	Exempt or Does Not Apply	Explanation	Citation Describing Exemption or Non-applicability
EQT0004, EQT0005, EQT0006, EQT0022 Engines	LAC 33:III.Chapter 15 – Emission Standards for Sulfur Dioxide	Does Not Apply	This single point source does not have the potential to emit more than 5 tpy of sulfur dioxide.	LAC 33:III.1502.A.3
	LAC 33:III.Chapter 51 – Comprehensive Toxic Air Pollutant Emission Control Program	Exempt	Emissions from the combustion of Group 1 virgin fossil fuels are exempt from the requirements of Chapter 51.	LAC 33:III.5105.B.3.a
EQT0007 Cooling Water Tower	LAC 33:III.1311 – Emission Limits	Does Not Apply	LAC 33:III.1311 does not apply when the failure of an emission to meet opacity requirements is due to the presence of uncombined water.	LAC 33:III.1311.F
	40 CFR 63 Subpart Q – National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers	Does Not Apply	The cooling tower does not employ chromium-based water treatment chemicals.	40 CFR 63.400(a)
	40 CFR 64 – Compliance Assurance Monitoring	Does Not Apply	Drift eliminators “prevent the release of pollutants” and are therefore not considered “control devices.”	40 CFR 64.1

XII. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID	Requirement	Exempt or Does Not Apply	Explanation	Citation Describing Exemption or Non-applicability
EQT0008, EQT0013, EQT0017 Methanol Tanks	40 CFR 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	Does Not Apply	After the compliance dates specified in 40 CFR 63.100, a Group 1 storage vessel that is also subject to the provisions of 40 CFR 60 Subpart Kb is required to comply only with the provisions of 40 CFR 63 Subpart G.	40 CFR 63.110(b)(1)
	40 CFR 63 Subpart EEEE – National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)	Does Not Apply	Subpart EEEE applies to organic liquids distribution (OLD) (non-gasoline) operations at major sources of HAP emissions. However, storage tanks that are part of an affected source under another 40 CFR part 63 NESHAP are excluded from the "affected source." Storage tanks are subject to 40 CFR 63 Subpart G.	40 CFR 63.2330; 40 CFR 63.2338(c)(1)
EQT0014 Ammonia Tank	LAC 33:III.2103 – Storage of Volatile Organic Compounds	Does Not Apply	Tank does not store a volatile organic compound.	LAC 33:III.2103.A
	40 CFR 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	Does Not Apply	Subpart Kb applies to each storage vessel with a capacity greater than or equal to 75 cubic meters (m^3) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984. *Volatile organic liquid (VOL)* means any organic liquid which can emit volatile organic compounds (as defined in 40 CFR 51.100) into the atmosphere. Capacity of tank is less than 75 m^3; ammonia is not a VOL.	40 CFR 60.110b(a); 40 CFR 60.111b

XII. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID	Requirement	Exempt or Does Not Apply	Explanation	Citation Describing Exemption or Non-applicability
EQT0014 (Cont.)	40 CFR 63 Subpart G – National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater	Does Not Apply	Ammonia is not an organic hazardous air pollutant.	40 CFR 63.101(b)
	40 CFR 63 Subpart EEEE – National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)	Does Not Apply	Subpart EEEE applies to organic liquids distribution (OLD) (non-gasoline) operations at major sources of HAP emissions. Ammonia does not meet the definition of "organic liquid."	40 CFR 63.2330; 40 CFR 63.2406
FUG0001 Fugitive Emissions	LAC 33:III.2121 – Fugitive Emission Control	Exempt	Any facility subject to a fugitive emission monitoring program which controls emissions to a higher degree than required under LAC 33:III.2121 shall be exempted upon submittal of a description of the program to LDEQ. A facility which has consolidated into an overall more stringent program in accordance with the Louisiana Consolidated Fugitive Emissions Program is exempted from the requirement of submitting a description of the program to LDEQ.	LAC 33:III.2121.D.5
FUG0002 Wastewater Treatment	LAC 33:III.2153 – Limiting VOC Emissions from Industrial Wastewater	Does Not Apply	Facilities located in St. James Parish are not part of the "affected source category."	LAC 33:III.2153.A

XII. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID	Requirement	Exempt or Does Not Apply	Explanation	Citation Describing Exemption or Non-applicability
FUG0002 (Cont.)	40 CFR 63.149 – Control Requirements for Certain Liquid Streams in Open Systems Within a Chemical Manufacturing Process Unit	Does Not Apply	The Koch Methanol Plant does not have any liquid streams in open systems subject to 40 CFR 63 Subpart G.	40 CFR 63.149
EQT0018 Slop Vessel	40 CFR 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	Does Not Apply	Subpart Kb applies to each storage vessel with a capacity greater than or equal to 75 cubic meters (m^3) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984. Capacity of tank is less than 75 m^3.	40 CFR 60.110b(a)
	40 CFR 63 Subpart G – National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater	Does Not Apply	According to 40 CFR 63 Subpart F, a "storage vessel" does not include vessels with capacities smaller than 38 cubic meters.	40 CFR 63.101(b)

XII. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID	Requirement	Exempt or Does Not Apply	Explanation	Citation Describing Exemption or Non-applicability
EQT0018 (Cont.)	40 CFR 63 Subpart EEEE – National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)	Does Not Apply	Subpart EEEE applies to organic liquids distribution (OLD) (non-gasoline) operations at major sources of HAP emissions. However, storage tanks that are part of an affected source under another 40 CFR part 63 NESHAP are excluded from the "affected source."	40 CFR 63.2330; 40 CFR 63.2338(c)(1)
EMS0001 Methanol Scrubber	40 CFR 64 – Compliance Assurance Monitoring	Exempt	VOC/HAP: The requirements of Part 64 do not apply to emission limitations or standards proposed by the Administrator after November 15, 1990, pursuant to section 111 or 112 of the Act. EMS 1 is subject to the transfer operations provisions of 40 CFR 63 Subpart G.	40 CFR 64.2(b)(1)(i)
RLP0024, RLP0025 Vents	LAC 33:III.2115 – Control of Emission of Organic Compounds - Waste Gas Disposal	Does Not Apply	These vents do not contain Volatile Organic Compounds (VOC) emissions.	LAC 33:III.2115
	40 CFR 60 Subpart NNN – Standards of Performance for VOC Emissions from SOCMI Distillation Operations	Does Not Apply	These vents do not originate from a distillation unit as defined in Subpart NNN and, therefore, no provisions of this rule apply.	40 CFR 60.660
	40 CFR 60 Subpart RRR - Standards of Performance for VOC Emissions from SOCMI Reactor Processes	Does Not Apply	These vents do not originate from a reactor process as defined in Subpart RRR and, therefore, no provisions of this rule apply.	40 CFR 60.700
	40 CFR 63 Subpart F – National Emission Standards for Organic Hazardous Air Pollutants from the SOCMI	Does Not Apply	These vents do not contain HAP and, therefore, does not meet the definition of process vent per Subpart F. Therefore, no provisions of this rule apply.	40 CFR 63.101

XII. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID	Requirement	Exempt or Does Not Apply	Explanation	Citation Describing Exemption or Non-applicability
EQT0026 Emergency Generator	LAC 33:III.Chapter 11 – Control of Emissions of Smoke	Exempt	Combustion units that combust only natural gas, carbon monoxide, hydrogen, and/or other gaseous fuels with a carbon to hydrogen molecular ratio of less than 0.34 are exempt from the opacity standards of LAC 33:III.1101.B.	LAC 33:III.1107.B
	LAC 33:III.Chapter 15 – Emission Standards for Sulfur Dioxide	Does Not Apply	This single point source does not have the potential to emit more than 5 tpy of sulfur dioxide.	LAC 33:III.1502.A.3
	LAC 33:III.Chapter 51 – Comprehensive Toxic Air Pollutant Emission Control Program	Exempt	Emissions from the combustion of Group 1 virgin fossil fuels are exempt from the requirements of Chapter 51.	LAC 33:III.5105.B.3.a
EQT0027 Gasoline Storage Tank	LAC 33:III.2131 – Filling of Gasoline Storage Vessels	Exempt	This facility has an annual throughput of less than 500,000 gallons per year.	LAC 33:III.2131.E.3
	40 CFR 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	Does Not Apply	Subpart Kb applies to each storage vessel with a capacity greater than or equal to 75 cubic meters (m^3) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984. Capacity of tank is less than 75 m^3	40 CFR 60.110b(a)

XII. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID	Requirement	Exempt or Does Not Apply	Explanation	Citation Describing Exemption or Non-applicability
EQT0027 (cont.)	40 CFR 63 Subpart CCCCCC – NESHAP for Source Category: Gasoline Dispensing Facilities	Does Not Apply	This rule applies to gasoline dispensing facilities located at an area source of HAP emissions. This facility is not an area source and, therefore, no provisions of this rule apply.	40 CFR 63.11111
EQT0029, EQT0030, EQT0031, EQT0032 Methanol Product Tanks	40 CFR 60 Subpart K – Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978	Does Not Apply	Storage vessels were constructed after May 19, 1978.	40 CFR 60.110
	40 CFR 60 Subpart Ka – Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	Does Not Apply	Storage vessels were constructed after July 23, 1984.	40 CFR 60.110a

XII. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID	Requirement	Exempt or Does Not Apply	Explanation	Citation Describing Exemption or Non-applicability
EQT0029, EQT0030, EQT0031, EQT0032 (Cont.)	40 CFR 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	Does Not Apply	After the compliance dates specified in 40 CFR 63.100, a Group 1 storage vessel subject to 40 CFR Part 60 Subpart Kb is required to comply only with 40 CFR Part 63 Subpart G. The storage tanks are subject to 40 CFR Part 63 Subpart G and therefore are not subject to 40 CFR Part 60 Subpart Kb.	40 CFR 63.110(b)(1)
	40 CFR 63 Subpart EEEE – National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)	Does Not Apply	Subpart EEEE applies to organic liquids distribution (OLD) (non-gasoline) operations at major HAP emissions sources. However, storage tanks that are part of an affected source under another 40 CFR Part 63 NESHAP are excluded from the "affected source." Since the storage tanks are subject to 40 CFR 63 Subpart G, they are not subject to the OLD regulation.	40 CFR 63.2330, 40 CFR 63.2338(c)(1)
EQT0028 Loading	LAC 33:III.Chapter 15 – Emission Standards for Sulfur Dioxide	Does Not Apply	This single point source does not have the potential to emit more than 5 tpy of sulfur dioxide.	LAC 33:III.1502.A.3
	40 CFR 63 Subpart EEEE – National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)	Does Not Apply	Subpart EEEE applies to organic liquids distribution (OLD) (non-gasoline) operations at major HAP emissions sources. However, storage tanks that are part of an affected source under another 40 CFR Part 63 NESHAP are excluded from the "affected source." Since the transfer racks are subject to 40 CFR 63 Subpart G, they are not subject to the OLD regulation.	40 CFR 63.2330, 40 CFR 63.2338(c)(1)

XII. Table 2. Explanation for Exemption Status or Non-Applicability of a Source

ID	Requirement	Exempt or Does Not Apply	Explanation	Citation Describing Exemption or Non-applicability
EQT0028 (cont.)	40 CFR 64 – Compliance Assurance Monitoring	Exempt	VOC/HAP: The requirements of Part 64 do not apply to emission limitations or standards proposed by the Administrator after November 15, 1990, pursuant to section 111 or 112 of the Act. The loading transfer racks are subject to 40 CFR 63 Subpart G's transfer operations provisions and are not subject to CAM.	40 CFR 64.2(b)(1)(i)
EQT0033 & EQT0034 Emergency Generators	LAC 33:III.Chapter 15 – Emission Standards for Sulfur Dioxide	Does Not Apply	This single point source does not have the potential to emit more than 5 tpy of sulfur dioxide.	LAC 33:III.1502.A.3
	LAC 33:III.Chapter 51 – Comprehensive Toxic Air Pollutant Emission Control Program	Exempt	Emissions from the combustion of Group 1 virgin fossil fuels are exempt from the requirements of Chapter 51.	LAC 33:III.5105.B.3.a

The above table provides explanation for both the exemption status or non-applicability of a source cited by 1, 2 or 3 in the matrix presented in Section X (Table 1) of this permit.