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Worksheet for Technical Review of Working Draft of Proposed Permit

Company Name:	Pine Prairie Energy Center, LLC	**AI #:**	123347	**TEMPO Activity No:**	PER20090001
Facility Name:	Pine Prairie Energy Center	**Remarks Submitted by:**	C-K Associates, LLC on behalf of PPEC		
Permit Writer:	Dustin Duhon	**Permit Writer Email address:**	dustin.duhon@la.gov		

Instructions

Permit Reference – Indicate specific portion(s) of the permit to which the remark relates (i.e. "Specific Condition 120", or "Section II Air Permits Briefing Sheet", etc.).

Remarks – Explain the basis for each remark. Provide regulatory citations where possible. If the remark is made due to an error or omission in the permit application this must be noted and the revised information ***must be submitted.*** Revised information may be submitted separately from this worksheet. Please be aware that revised information must be submitted in writing and certified by the Responsible Official, and if necessary, by a Professional Engineer licensed in Louisiana. *Please Note:* New or additional equipment, processes or operating conditions not addressed in the original permit application will be addressed on a case-by-case basis. The Department reserves the right to address such changes in a separate permit action.

DEQ Response – ***DO NOT COMPLETE THIS SECTION.*** This section will be completed by Air Permits Division of DEQ, included in the proposed permit package and made available for public review during any required public comment period.

- Additional rows may be added as necessary.
- Completed Form shall be emailed to the Permit writer in MS Word compatible format within the deadline specified in the email notification.
- ***DO NOT USE THIS FORM TO SUBMIT COMMENTS DURING THE OFFICIAL PUBLIC COMMENT PERIOD.***

Permit Reference	Remarks	Air Permits Division Response (for official use only)
Air Permit Briefing Sheet, Section III, p. 2, 1st paragraph	**Request that in the statement, "Based on statements released by...", "112" be replaced with "48."** The company and facility have not entered into contractual obligations or secured funds to increase working or operational capacity greater than 48 BCF. **Additionally, please amend to reflect a "working capacity from 24 BCF up to 48 BCF" as this is more accurate.**	This change was not made. The LDEQ was able to acquire publicly available documentation from the website of the owner of the facility that indicates that the owner is currently determining the market demand for an expansion of the facility up to 112 BCF. The purpose of this statement is to indicate that LDEQ will consider any equipment needed to support any increase in storage capacity from 24 BCF to 112 BCF, whether done in one project or in several smaller projects, as one project for the purposes of determining Prevention of Significant Deterioration applicability. This statement was moved to Section IV of the Briefing Sheet.
Air Permit Briefing Sheet, Section III, p. 2, 3rd paragraph	Please revise third bullet item to indicate a **400** BBL MEOH tank. The tank capacity was updated per email attachment dated July 23, 2009 to the permit writer.	This change was made. It should be noted that the EIQ on file for this source listed the volume of the tank as 210 BBL.

Air Permit Briefing Sheet, Section III, p. 2, 3rd paragraph	**Please add to the bullet list the incorporation of two Aqueous Ammonia (17%) tanks**, which were included in the initial permit application but left out of the final permit issued (V0). This application for modification seeks to add these tanks as originally requested.	This change was made.
Air Permit Briefing Sheet, Section III, p. 2, VOC Emissions	**Please revise the After VOC emissions tons per year to 128.89.** After review of all emissions rates and correction of fugitives, this is the new total. The **Change** column should be amended to **+93.45.**	This change was made.
Air Permit Briefing Sheet, Section III, p. 2, VOC TAPs Listing Emissions	**Request that the permit list only two significant digits behind the decimal place.** As provided in the application, emissions estimates were rounded to 2 decimal places. The draft permit limit presented here includes a 3rd significant digit behind the decimal as being "0". This is not consistent with calculated emissions estimates and could potentially result in an unfounded compliance issue based on rounding.	Changes were made in accordance with the guidance found in the *Louisiana Guide for Air Permitting Actions*.
Air Permit Briefing Sheet, Section III, p. 2, VOC TAPs Listing, Ammonia Emissions Total	Please add 0.75 tpy to the **Ammonia** emissions of 2.78 tpy for a **total of 3.53 tpy**. The ammonia tanks do not appear in the draft permit and were proposed in the application for the Insignificant Activity list when in fact, these tanks should be listed in the permit as a permitted source. Tank 4.0.9d reports were included in the application, Appendix D.	This total was revised to 3.52 tons per year. This value is the total of the emission rates for the individual sources shown in the permit.
Air Permit Briefing Sheet, Section III, p. 2, VOC TAPs Listing, n-Hexane Emissions Total	**Please revise n-Hexane emissions to reflect the permit application total of 3.00 tpy.** This draft permit did not include the updated fugitive emissions, which included additional n-hexane emissions of 0.35 tpy.	This total was revised to 2.99 tons per year. This value is the total of the emission rates for the individual sources shown in the permit.
Air Permit Briefing Sheet, Section III, p. 3, VOC TAPs Listing, Total Emissions	**Please revise the VOC TAPs Total for the facility, as determined from the sum of the VOC TAPs listed here and including the correction in the comment above, is 24.21 tpy.** The Total of 26.650 tpy for VOC TAPs includes Ammonia, which is not a VOC TAP, but rather a non-VOC TAP.	This total was revised to 24.213 tons per year. This value is the total of the emission rates for the individual sources shown in the permit.
Air Permit Briefing Sheet, p. 4, Section VIII	Please revise the **Schedule** for *Compressor and Other Blowdown Emissions* from "6 times per month" to "**12** times per month", as proposed in the application.	This change was made.
Air Permit Briefing Sheet, p. 4, Section VIII	Please revise the **VOC Emission Rate** for *Compressor and Other Blowdown Emissions* from 0.11 tons to **0.69** tons, as proposed in the application.	This change was made.
Air Permit Briefing Sheet, p. 5-6, Section X, Table 1, EQT13 through	Please revise the description as follows, "**7724** HP Caterpillar G16-CM34 Engine." The power rating for these engines was updated in this application to reflect site-specific engines.	This change was made.

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EQT16		
Air Permit Briefing Sheet, p. 6, Section X, Table 1, EQT17 and EQT18	Please revise the description as follows, "**7805** HP Caterpillar G16-CM34 Engine." The power rating for these engines was updated in this application to reflect site-specific engines.	This change was made.
Air Permit Briefing Sheet, p. 7, Section X, Table 1, EQT31	Please revise the description as follows, "D-960 – **400** BBL Methanol Storage Tank." The tank capacity was updated per email attachment dated July 23, 2009 to the permit writer.	This change was made.
Air Permit Briefing Sheet, Section X, Table 1	**Please add a new EQT ID and Description for D-690A Aqueous Ammonia (17%) Tank.** The ammonia tank does not appear in the draft permit and was proposed in the application for the Insignificant Activity list when in fact, this tank should be listed in the permit as a permitted source.	This change was made.
Air Permit Briefing Sheet, Section X, Table 1	**Please add a new EQT ID and Description for D-690B Aqueous Ammonia (17%) Tank.** The ammonia tank does not appear in the draft permit and was proposed in the application for the Insignificant Activity list when in fact, this tank should be listed in the permit as a permitted source.	This change was made.
Air Permit Briefing Sheet, p. 9-11, Section X, Table 1, EQT13 through EQT18 and EQT25 through EQT30	**Please remove designation as an applicable source ("1") to 40 CFR 61 Subpart A.** This Subpart does not apply to the compressor engines as suggested in the draft permit.	This change was made.
Air Permit Briefing Sheet, p. 13, Section XI, Table 2, First Line Item	Please revise the first line item **ID No.** field to read, "EQTs 1-3, 7-**18**, 25-30." EQT 19 was deleted with this application.	This change was made.
Inventories, p. 1, EQT 0013 through EQT 0016	Please revise **Description, Max. Operating Rate,** and **Normal Operating Rate**, to reflect actual site-specific engine power rating **7724** HP.	This change was made.
Inventories, p. 1, EQT 0017 and EQT 0018	Please revise **Description, Max. Operating Rate,** and **Normal Operating Rate**, to reflect actual site-specific engine power rating **7805** HP.	This change was made.
Inventories, p. 1, EQT 0025 through EQT 0030	Please revise **Operating Time** to reflect **8760** hrs/yr. These engines are included in a cap and should reflect operation throughout the year.	This change was made.
Inventories, p. 1, EQT 0031	Please revise **Description, Tank Volume, Max. Operating Rate,** and **Normal Operating Rate**, to reflect a **400 BBL (16,800 gal) capacity** and annual throughput of **20,000 gal/yr**. The tank capacity and throughput was updated per email attachment dated July 23, 2009 to the permit writer.	This change was made.

Inventories, p. 2, EQT 0013 through EQT 0016	Please revise as follows: Description is for a **7724 HP** engine, Velocity should be **28**, Flow Rate should be **21000**, Diameter should be **4**, Height should be **40**, and Temperature should be **660**. This data was updated on the proposed EIQs in the application.	This change was made.
Inventories, p. 2, EQT 0017 and EQT 0018	Please revise as follows: Description is for a **7805 HP** engine, Velocity should be **48**, Diameter should be **4**, and Height should be **40**. This data was updated on the proposed EIQs in the application.	This change was made.
Inventories, p. 2, EQT 0026	Please revise as follows: Velocity should be **48**, Flow Rate should be **36515**, Diameter should be **4**, Height should be **40**, and Temperature should be **713**. This data was updated on the proposed EIQs in the application.	This change was made.
Inventories, p. 3, EQT 0013 through EQT 0016	Please revise **Description under Group Membership** to reflect actual site-specific engine power rating **7724** HP.	This change was made.
Inventories, p. 3, EQT 0017 and EQT 0018	Please revise **Description under Group Membership** to reflect actual site-specific engine power rating **7805** HP.	This change was made.
Emission Rates For Criteria Pollutants, p. 2, EQT 0031	Please revise **VOC Avg lb/hr, Max lb/hr, Tons/Year** to reflect two significant digits: **0.02, 0.02, 0.09, respectively**.	This change was made.
Emission Rates For Criteria Pollutants, p. 2, FUG 0001	Please revise **VOC Avg lb/hr, Max lb/hr, Tons/Year** to reflect the application EIQ: **0.59, 0.59, 2.60, respectively**.	This change was made.
Emission Rates For Criteria Pollutants, p. 2, GRP 0004	Please include the proposed **PM10 annual emission rate of 0.11 tpy**, as provided on the application EIQ.	This change was made.
Emission Rates For Criteria Pollutants, p. 2, GRP 0004	Please include the proposed **VOC average emission rate of 35.03 lbs/hr**, as provided on the application EIQ.	This change was made.
Emission Rates For TAP/HAP & Other Pollutants, p. 2-3, EQT 0013 through EQT 0018	**Request that the permit list only two significant digits behind the decimal place.** As provided in the application, emissions estimates were rounded to 2 decimal places. The draft permit limit presented here includes a 3rd significant digit behind the decimal as being "0". This is not consistent with calculated emissions estimates and could potentially result in an unfounded compliance issue based on rounding.	Changes were made in accordance with the guidance found in the *Louisiana Guide for Air Permitting Actions*.
Emission Rates For TAP/HAP & Other Pollutants, p. 3-5, EQT 0025 through	**Request that the permit list only two significant digits behind the decimal place.** As provided in the application, emissions estimates were rounded to 2 decimal places. The draft permit limit presented here includes a 3rd significant digit	Changes were made in accordance with the guidance found in the *Louisiana Guide for Air Permitting Actions*.

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EQT 0030	behind the decimal as being "0". This is not consistent with calculated emissions estimates and could potentially result in an unfounded compliance issue based on rounding.	
Emission Rates For TAP/HAP & Other Pollutants, p. 5, EQT 0031	Please revise **Methanol Avg lb/hr, Max lb/hr, Tons/Year** to reflect two significant digits: **0.02, 0.02, 0.09, respectively**.	This change was made.
Emission Rates For TAP/HAP & Other Pollutants, p. 5, FUG 0001	Please revise **n-Hexane Avg lb/hr, Max lb/hr, Tons/Year** to reflect the application EIQ: **0.08, 0.08, 0.35, respectively**.	This change was made.
Emission Rates For TAP/HAP & Other Pollutants, p. 5-6, GRP 0004	**Request that the permit list only two significant digits behind the decimal place.** As provided in the application, emissions estimates were rounded to 2 decimal places. The draft permit limit presented here includes a 3rd significant digit behind the decimal as being "0". This is not consistent with calculated emissions estimates and could potentially result in an unfounded compliance issue based on rounding.	Changes were made in accordance with the guidance found in the *Louisiana Guide for Air Permitting Actions*.
Emission Rates For TAP/HAP & Other Pollutants, p. 6, UNF0001	**Please revise n-Hexane Tons/Year to reflect the Fugitive emissions increase of this pollutant due to the project. The total n-Hexane emissions was determined to be 3.00, rounded to two significant digits.**	This total was revised to 2.99 tons per year. This value is the total of the emission rates for the individual sources shown in the permit.
Emission Rates For TAP/HAP & Other Pollutants, p. 6, UNF0001	**Request that the permit list only two significant digits behind the decimal place.** As provided in the application, emissions estimates were rounded to 2 decimal places. For some pollutants, the draft permit limit presented here includes a 3rd significant digit behind the decimal as being "0". This is not consistent with calculated emissions estimates and could potentially result in an unfounded compliance issue based on rounding.	Changes were made in accordance with the guidance found in the *Louisiana Guide for Air Permitting Actions*.
Specific Requirements: Nos. 37, 47, 57, 67	**Please remove these requirements.** The compressor engines are not subject to this limitation [LAC 33:III.1313.C] as provided in regulatory Table 3 of the application.	This change was made.
Specific Requirements: EQT 0013 through EQT 0018, EQT	Description of these sources should reflect site-specific powering rate as mentioned in above comments.	This change was made.

0025 through EQT 0030		
Specific Requirements: EQT 0013 through EQT 0016	**Please remove specific requirements 28 -34, 38-44, 48-54, and 58-64.** Information has been obtained from the facility that these engines were ordered before June 12, 2006 and manufactured prior to July 1, 2007 and therefore not applicable to Subpart JJJJ per 60.4230(4)(i). Additionally, these engines meet the definition of an *affected existing source located at an area source of HAP* and therefore are not subject to the requirements of Subpart ZZZZ per 63.6590(b)(3).	This change was made.
Specific Requirements: EQT 0017 and EQT 0018, EQT 0025 through EQT 0030	**Please add the following applicable regulatory citations from NSPS Subpart JJJJ:** **40 CFR 60.4233(e)** **40 CFR 60.4236(b)** **40 CFR 60.4243(a)(1) as referenced by 40 CFR 60.4243(b)(1)** **40 CFR 60.4243(b)** **40 CFR 60.4243(b)(1)** These citations were included in the permit application regulatory tables.	These requirements refer to applicability criteria and do not confer actual requirements. When performing a technical review, LDEQ evaluates all applicability criteria in order to determine the appropriate requirements that should be included in the permit. LDEQ has evaluated each of these regulations and has determined that the regulations as they currently appear in the permit adequately address the requirements of these regulatory citations.
Specific Requirements: EQT 0017 and EQT 0018	**Please add the following applicable regulatory citation from NSPS Subpart JJJJ:** **40 CFR 60.4243(g)** This citation was included in the permit application regulatory tables.	This requirement refers to applicability criteria and do not confer actual requirements. When performing a technical review, LDEQ evaluates all applicability criteria in order to determine the appropriate requirements that should be included in the permit. LDEQ has evaluated this regulation and has determined that the regulations as they currently appear in the permit adequately address the requirements of this regulatory citation.
Specific Requirements: EQT 0017, EQT 0018, EQT 0025 through EQT 0030	**Please remove Specific Requirements 69, 78, 87, 97, 106, 115, 124, and 133.** These are not emergency engines and therefore do not operate under emergency conditions with the option to use propane as an alternative fuel.	In order to address the concerns of the commenter and LDEQ, the referenced conditions were reworded to read as follows: Permittee may operate using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations. Keep records of such use. If propane is used for more than 100 hours per year and the engine is not certified to the emission standards when using propane, conduct a performance test to demonstrate compliance with the emission standards of 40 CFR 60.4233. Subpart JJJJ
Specific Requirements: EQT 0017, EQT 0018, EQT 0025 through EQT 0030	**Please remove Specific Requirements 70, 79, 89, 99, 108, 117, 126, and 135.** The engines are not required to conduct performance testing per 60.4243(b) and 60.4243(a)(1) under NSPS.	In order to address the concerns of the commenter and LDEQ, the referenced conditions were reworded to read as follows: When required by 40 CFR 60 Subpart JJJJ to conduct one or more performance tests, conduct performance tests by following the procedures in 40 CFR 60.4244(a) through (g). Subpart JJJJ

Specific Requirements: EQT 0031	Description of this source should reflect **400** BBL capacity. The tank capacity was updated per email attachment dated July 23, 2009 to the permit writer.	This change was made.
Specific Requirement: No. 170	**Request that "112" be replaced with "48" in this specific requirement.** The company and facility have not entered into contractual obligations or secured funds to increase working or operational capacity greater than 48 BCF. **Additionally, please amend to reflect a "working capacity from 24 BCF up to 48 BCF" as this is more accurate.**	This condition was removed. The statement was retained in the Briefing Sheet of the permit and can be found in Section IV of the Briefing Sheet as well as within Section IV of the Statement of Basis.
Specific Requirement: Nos. 172, 173, 174	**Request that these specific requirements be removed.** Applicability of these regulations [LAC Chapters 56 and 59] was addressed in the regulatory Table 3 of the permit application.	This change was not made. LAC 33:III.Chapter 56 requirements apply to all sources of air pollution, regardless of size or type. Specifically, LAC 33:III.5611.A applies to all sources that are not listed in Tables 5, 6, or 7, such as Pine Prairie. LDEQ has determined that it is appropriate to include the referenced condition from LAC 33:III.Chapter 59 in all issued permits.
Statement of Basis, Section III, Project	Please revise third bullet item to indicate a **400** BBL MEOH tank. The tank capacity was updated per email attachment dated July 23, 2009 to the permit writer.	This change was made. It should be noted that the EIQ on file for this source listed the volume of the tank as 210 BBL.
Statement of Basis, Section III, Project	**Please add to the bullet list the incorporation of two Aqueous Ammonia (17%) tanks**, which were included in the initial permit application but left out of the final permit issued (V0). This application for modification seeks to add these tanks as originally requested.	This change was made.
Statement of Basis, Section III, Permitted Air Emissions	**Please revise the After VOC emissions tons per year to 128.89.** After review of all emissions rates and correction of fugitives, this is the new total. The **Change** column should be amended to **+93.45.**	This change was made.
Statement of Basis, Section IV, Regulatory Analysis	Please revise the first line item under Applicability and Exemptions of Selected Subject Items **ID No.** field to read, "EQTs 1-3, 7-**18**, 25-30." EQT 19 was deleted with this application.	This change was made.
Statement of Basis, Section VI, Periodic Monitoring	First paragraph under Stack Testing and Annual Engine Monitoring Requirements provides that all internal combustion engines shall demonstrate compliance with CO and NOx emission limits by performing stack test. There are no specific requirements in this draft permit that provide testing must be done to demonstrate compliance as such. As mentioned in an above comment, the engines are not required to conduct performance testing per 60.4243(b) and 60.4243(a)(1) under NSPS. **Please rectify/clarify this in the permit language.**	This change was not made. Upon verification by the permittee that EQT 13 – EQT 16 are not subject to NSPS JJJJ, the stack test provisions of this regulation no longer apply. As a result, LDEQ requires that the permittee conduct performance tests in accordance with the referenced paragraph in the Statement of Basis.
Statement of Basis,	Second paragraph under Stack Testing and Annual Engine	This change was not made. Upon verification by the permittee

Section VI, Periodic Monitoring	Monitoring Requirements provides that permittee shall test those engines with catalytic converters annually utilizing portable analyzers. There are no specific requirements in this draft permit that provide this monitoring requirement. There are no such applicable monitoring requirements under NSPS Subpart JJJJ. **Please rectify/clarify this in the permit language.**	that EQT 13 – EQT 16 are not subject to NSPS JJJJ, the stack test provisions of this regulation no longer apply. As a result, LDEQ requires that the permittee conduct performance tests in accordance with the referenced paragraph in the Statement of Basis.

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