TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

Eagle LNG Partners Jacksonville, LLC
1632 Zoo Parkway
Jacksonville, FL 32226

ARMS Facility ID No. 0310632

PROJECT

Project No. 0310632-001-AC
Liquefied Natural Gas (LNG) production, storage, and export facility

COUNTY

Duval County Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Permitting Program, Northeast District Office
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

COMPLIANCE AUTHORITY

Florida Department of Environmental Protection
Compliance Assurance, Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256-7590

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April 5, 2019

1. GENERAL PROJECT INFORMATION

1.1. Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Chapters 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations in Rule 62-204.800, F.A.C.

1.2. Glossary of Common Terms

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of the draft permit distributed with this technical evaluation.

1.3. Facility Description and Location

Eagle LNG Partners Jacksonville, LLC proposes to construct a new 1,650,000 U.S. gallons per day [usg/d], (from 132 million cubic feet per day of natural gas), liquefied natural gas (LNG) production, storage, and export facility. The facility will be categorized under Standard Industrial Classification No. 1321- Natural Gas Liquids and located in Duval County at 1632 Zoo Parkway, Jacksonville, Florida. The approximate Universal Transverse Mercator (UTM) coordinates of the facility are Zone 17, 441.0 km East; 3364.6 km North.

The location of Duval County is shown in **Figure 1:** The location of the proposed facility within the county is shown in **Figure 2**. A satellite view of the proposed facility location is shown in **Figure 3**. This site is located in an area designated as attainment (or designated as unclassifiable) for all air pollutants except for ozone. The area is designated as an ozone Air Quality Maintenance Area. Separately, the site is in the Area Of Influence[1] of an Air Quality Maintenance Area for the pollutant particulate matter.[2]

1.4. Primary Facility Regulatory Categories

- The facility **will not be** a major source of hazardous air pollutants (HAP). The facility will be a synthetic area source of HAP.
- The facility **will not** operate units subject to the acid rain provisions of the Clean Air Act.
- The facility **will be** a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility **will not be** a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality. The facility will be a synthetic PSD Minor Source.

[1] Rule 62-210.200(24), F.A.C. "Area of Influence" – An area which is outside the boundary of a nonattainment or air quality maintenance area but within the locus of all points that are fifty kilometers outside of the boundary of the nonattainment or air quality maintenance area.

[2] Rule 62-204.340, F.A.C. as amended 10-23-16.

- This facility **will have** one or more emissions units subject to NSPS (40 CFR 60).
- This facility **will have** one or more emissions units subject to NESHAP (40 CFR Part 63)

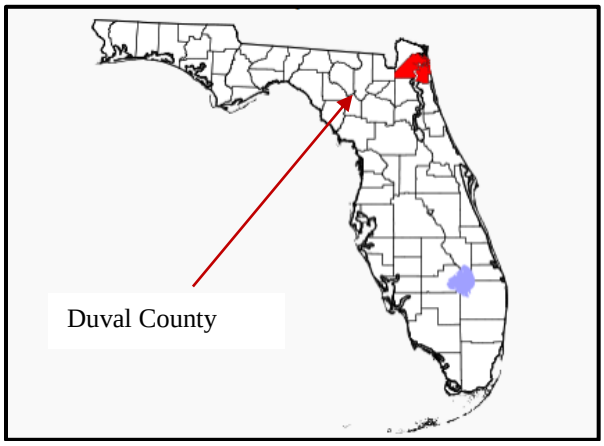


Figure 1: Location Duval County, Florida

Figure 2: Location of Eagle Jacksonville LNG

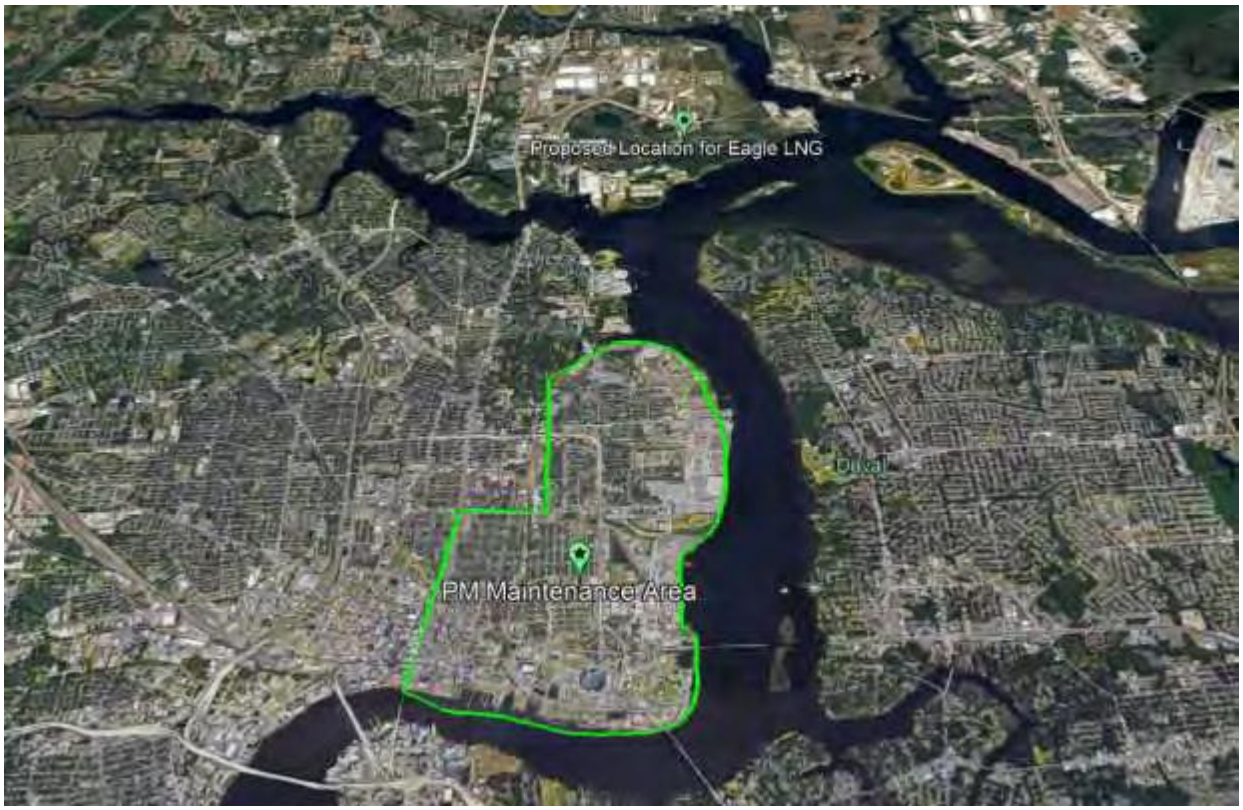


Figure 3: Satellite view of proposed Eagle Jacksonville LNG facility

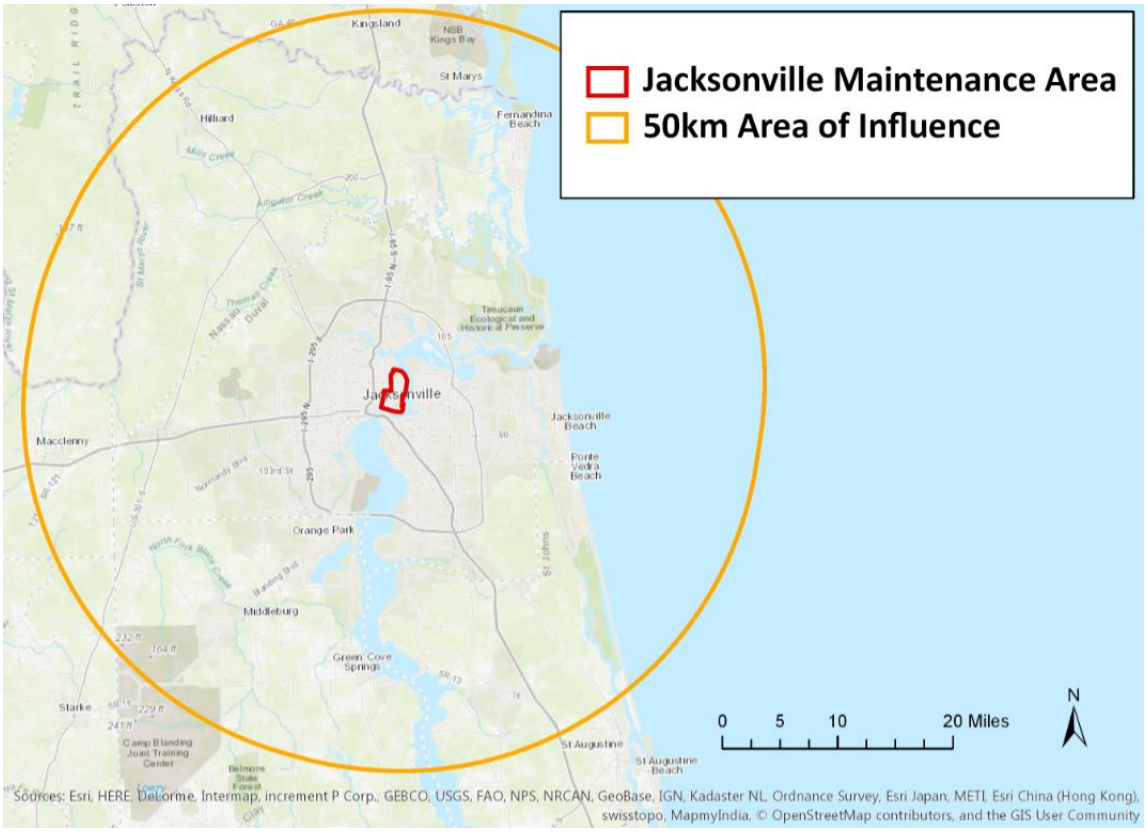


Figure 4: Jacksonville Air Quality Maintenance Area and Area of Influence for PM

1.5. Processing Schedule

03/21/2018 Department received the Application for Air Permit – Long Form

04/12/2018 Department requested Additional Information

10/08/2018 Additional Information response received

10/31/2018 Department requested Additional Information

01/28/2019 Additional Information response received

02/27/2019 Department requested Additional Information

02/28/2019 Additional Information response received

03/11/2019 Additional Information response received

03/15/2019 Additional Information response received

03/19/2019 Additional Information response received, application deemed complete.

1.6. Project and Process Descriptions

Eagle LNG Partners Jacksonville, LLC proposes to construct a new 1,650,000 U.S. gallon per day (from 132 million cubic feet per day of natural gas) liquefied natural gas (LNG) production, storage, and export facility in Jacksonville, Florida (Duval County). The facility will consist of three liquefaction trains (with independent pre-treatment and liquefaction units) each with the capacity to produce 550,000 usg/day of LNG from approximately 44 MMscf/d of natural gas (a total combined capacity of 1,650,000 usg/d of produced LNG from 132 million cubic feet per day of natural gas). There will be one containment LNG storage tank capable of storing

approximately 12,000,000 gallons (45,000 cubic meters [m^3]) of LNG (equivalent to 1.0 billion cubic feet of natural gas). A marine loading station, a truck load-out station, three hot oil heaters, three regeneration gas heaters, one common ground flare (with wet/dry pilots), a cold vent, a thermal oxidizer, an emergency diesel generator, a diesel fire water pump and five power generation engines will also operate at the facility.

The Eagle Jacksonville LNG facility will receive pipeline quality natural gas directly from the Local Distribution Company transmission pipeline facilities that will be located adjacent to its operations. The Eagle Jacksonville LNG facility will liquefy the natural gas into LNG, temporarily store the produced LNG, and periodically load the LNG into marine vessels for domestic LNG markets and for export overseas, and into trucks for domestic LNG distribution to markets in Florida and the U.S. Southeast.

LNG is natural gas that has been cooled to about minus 260 degrees Fahrenheit for storage as a liquid. LNG is more compact than its gaseous equivalent which allows for the storage of a large quantity of natural gas in a relatively compact storage space (reduces volume by a factor of 600).

The pipeline natural gas will flow through an Inlet Gas compressor suction drum to remove any entrained liquid. This is done prior to being routed to an Inlet Gas Compression System where it will be compressed from the pressure of the Local Distribution Company pipeline to the optimal feed gas pressure for liquefaction. The separated liquid will be directed to a common Thermal Oxidizer control unit.

At construction completion, the Inlet Gas Compression System will consist of four, electric motor driven, inlet gas compressors (one for each of the three liquefaction trains and an additional one as a spare). Each inlet gas compressor will be sized to the maximum capacity of one LNG liquefaction train. After compression, the feed gas is cooled by a discharge cooler to remove the heat of compression from the gas. All four compression units will take suction and discharge into common headers to serve any of the three LNG trains.

Each LNG train will include pre-treatment systems consisting of an Acid Gas Removal Unit, Dehydration and Mercaptans Removal Unit, and a Mercury Removal Unit. Contaminants in the natural gas (carbon dioxide, sulfur compounds, water, mercaptans and mercury) will be removed by the pre-treatment systems prior to liquefaction in order to render the natural gas compatible with the liquefaction process and to meet LNG specifications. Each LNG train also includes a Liquefaction Unit to liquefy the treated feed gas and to remove and recover heavy hydrocarbon components.

From the Inlet Gas Compression System, the cooled, compressed feed gas will be routed to the Acid Gas Removal Unit where carbon dioxide and hydrogen sulfide (CO_2 and H_2S) are removed. This is done to prevent freezing inside the Liquefaction System. An amine treating system using a methyl diethanolamine (MDEA) solution reduces the concentration of CO_2 to less than 50 ppmv.

The heat needed for the Acid Gas Removal Unit will be supplied by circulating hot oil from a Hot Oil Heater (EU 005). The flash gas resulting from the acid gas removal process (amine flash drum) will be used as supplemental fuel gas to the Hot Oil Heater. The removed acid gas will be directed to the common Thermal Oxidizer control unit.

The treated feed gas is then routed to the Molecular Sieve Dehydration System to remove water vapor to prevent freezing inside the Liquefaction System and mercaptans (i.e. odorants) to deodorize the LNG product. Water is removed to less than 0.1 ppmv while mercaptans are removed to meet a total sulfur specification of less than 4 ppmv.

The heat for molecular sieve bed regeneration will be provided by a Regeneration Gas Heater. Dry regeneration gas will be heated and then passed up through the exhausted molecular sieve bed, removing the adsorbed water. Based on the information provided in the submitted application, the Regeneration Gas Heaters meet the exemption criteria of Rule 62-210.300(3)(a)34., F.A.C.

Periodically, spent adsorbent materials from the Molecular Sieve Dehydrator System and mercaptans removal beds will be removed and sent offsite for disposal to a waste handling facility licensed for hazardous wastes or an appropriate facility for non-hazardous wastes.

From the Molecular Sieve Dehydrator System, the treated feed gas which is free of CO_2, Mercaptans, and Water, is routed to the Mercury Removal System where any potentially entrained mercury will be removed. This is done to prevent a phenomenon known as liquid metal embrittlement from causing a catastrophic failure of the aluminum process equipment in the Liquefaction System. The facility does not expect there to be any mercury present in the feed gas; nevertheless, the facility will include a mercury removal unit as a safeguard to protect the downstream equipment.

The dry treated feed gas will pass over a mercury removal bed to remove mercury to a concentration of less than 0.01 μg/Nm^3. Spent catalyst from the mercury removal bed will be removed periodically and sent for offsite disposal. Approximately 900 ft^3 of mercury removal absorbent bed material from the mercury guard bed and associated filter(s) could be replaced every 60 months, provided there is any mercury present in the feed gas. The materials will be sent to a waste handling facility licensed for items containing mercury.

The Liquefaction Unit will operate to liquefy treated feed gas, as well as to remove and recover heavy hydrocarbon components, prior to liquefaction. The treated gas from the mercury removal beds will enter the Liquefaction Cold Box where the feed gas is first cooled to an intermediate temperature to condense heavy hydrocarbons. The condensed heavy hydrocarbons will be separated and reheated before being discharged to a warm heavy hydrocarbon separation system. The gas remaining after separating the heavy hydrocarbons will be liquefied and subcooled to LNG against cold mixed refrigerant before flowing to the 12,000,000-gallon LNG Storage Tank. The LNG Storage Tank will be maintained at approximately atmospheric pressure and -260ºF.

Refrigeration for the process is provided by CHART Industries' proprietary Improved Single Mixed Refrigerant Liquefaction (IPSMR) Process. The refrigerant consists of a mixture of nitrogen, methane, ethylene, propane, and n- butane. To account for any refrigerant leakage within the mixed refrigerant loop, make up refrigerant must be supplied on an as needed basis. Nitrogen, ethylene, propane, and n- butane make up will be sourced from an on-site refrigerant storage system, while the methane make up will be sourced directly from the treated natural gas entering the Liquefaction System.

The LNG product will be transferred to offsite users via marine barge loading. The facility will have one (1) Marine Loading Station with a design flow rate of 11,000 gallons per minute (2,500 m3/hr; 2.4 million lbs/hr) of LNG. Loading time for the largest design vessel is estimated to be 18 hrs. The marine loading area will include a vapor return line used during filling.

A portion of the LNG product will be loaded onto trucks for road distribution to LNG fueling stations in Florida and the surrounding states. The truck loading station will contain two truck loading bays with a total maximum design loading rate of 300 gallons per minute (71 m3/hr; 65,700 lbs/hr). Loading time for a single truck is 33 minutes, for two trucks in parallel is 66 minutes (@ 150 USGPM each). The truck loading area will include a vapor return line used during the filling of trucks.

The truck loading station will also include facilities for heavy hydrocarbon truck loading. Heavy hydrocarbons extracted from the feed gas during the initial cool down steps of the liquefaction process will be stored in a mounded pressurized vessel and loaded to trucks for off-site domestic distribution at a maximum rate of 300 usgpm.

There will be no provisions for receipt of LNG from ships or barges at the Eagle Jacksonville LNG facility. The facility will not provide electrical power or thermal energy to docked barges.

Power Generators

The main electric power for the Facility will be obtained from a local utility provider supplemented by on-site power from five, natural gas and plant fuel gas driven reciprocating engine generator sets. Four will be in operation with one as a spare.

Each of the five generator sets will be a Cummins Model QSV91G (or equivalent) and comprised of a spark-ignition, four-stroke, lean-burn internal combustion engine. Each engine will be rated at 2.00 MW electrical output and 2,826 brake horsepower mechanical output at 100% load.

During ship loading activities, all five generators will be in operation. Any gas which would generate power in excess of 8 MW, will be used for other plant loads. Fuel gas for the power generator sets will be sourced from the Boil of Gas (BOG) compression system.

Emergency Diesel Generator and Diesel Fire Water Pump

The facility will have three, electric-driven Air Compressor Packages, each sized for the operating demand of a single LNG train. A diesel driven Air Compressor Package will provide air for emergency shut down and if power from the local utility is disrupted. A diesel firewater pump will also be available onsite for fire suppression as back-up to the electric fire water pump in the event of a fire within the facility.

Boil Off Gas (BOG) Compression System

A BOG Handling System (BOG Compression System) will accommodate all anticipated BOG loads (vapors from the LNG storage tank and the return lines from the marine and truck loading systems) for the facility. BOG will be compressed by the BOG compression system and used in the fuel gas system or combined with feed gas entering the Inlet Gas Compressors.

Wet/Dry Ground Flare and Cold Vent System

The Facility will have a common Wet/Dry ground flare for the three LNG trains. This ground flare is for safe disposal of combustible hydrocarbon vapor and liquid streams that result from the start-up and shutdown of the liquefaction process, upset conditions and emergencies. The ground flare will include segregated multi point wet and dry flare systems each sized to handle the largest single relief from an operating train plus any operational flaring associated with the start-up of a second train.

The Facility will have a Cold Vent which will handle recovered vapors from Liquefied Natural Gas Carriers (LNGC's) in a warm CO_2 inerted condition (do not contain LNG or natural gas) upon arrival. The LNGCs will generate warm hydrocarbon vapors during initial LNG loading operation. The Cold Vent will also act as a stand-by-flare to handle the Boil-Off-Gas (BOG) from the LNG storage tank in the event of failure of the BOG compression system. The Cold Vent is sized for a BOG flow rate corresponding to a complete outage of the BOG Compression system during the loading of a ship.

Plant Fuel Gas

A common fuel gas system for the Facility will provide plant fuel gas for operation of the Power Generators, the Hot Oil Heaters and Regeneration Gas Heaters within the LNG trains, the common Thermal Oxidizer, the Dry and Wet Flare pilots (Common Ground Flare), the Cold Vent pilot and flare sweep gas. The sources of plant fuel gas will be:

> Vapors from heavy hydrocarbon storage;

> Flash gas from the amine flash drums in the Acid Gas Removal Units (supplemental fuel to Hot Oil Heaters);

> BOG from LNG Storage and Loading System (marine and truck loading vapor returns); and

> Startup fuel gas.

1.7. Process Flow Diagram

Figure 5, provided by the applicant, is a process flow diagram of the proposed facility.

1.8. Facility Emission Units

The project will consist of the regulated emission units (EU) given in

TABLE 1 below.

TABLE 1. Regulated Emission Units at Eagle Jacksonville LNG Facility

Facility ID No. 0310632	
ID No.	**Emission Unit Description**
001	**Power Generation Unit 1:** A generator set (Cummins Model QSV91G or equivalent) comprised of a spark-ignition, four-stroke, lean-burn internal combustion engine. The engine is rated at 2.00 MW of electrical output and 2,826 brake horsepower mechanical output at 100 percent load. The engine is fired with natural gas and plant fuel gas (boil-off gas and small quantities of heavy hydrocarbon vapors).
	Power Generation Unit 2: A generator set (Cummins Model QSV91G or equivalent) comprised of a spark-ignition, four-stroke, lean-burn internal combustion engine. The engine is rated at 2.00 MW of electrical output and 2,826 brake horsepower mechanical output at 100 percent load. The engine is fired with natural gas and plant fuel gas (boil-off gas and small quantities of heavy hydrocarbon vapors).
	Power Generation Unit 3: A generator set (Cummins Model QSV91G or equivalent) comprised of a spark-ignition, four-stroke, lean-burn internal combustion engine. The engine is rated at 2.00 MW of electrical output and 2,826 brake horsepower mechanical output at 100 percent load. The engine is fired with natural gas and plant fuel gas (boil-off gas and small quantities of heavy hydrocarbon vapors).
	Power Generation Unit 4: A generator set (Cummins Model QSV91G or equivalent) comprised of a spark-ignition, four-stroke, lean-burn internal combustion engine. The engine is rated at 2.00 MW of electrical output and 2,826 brake horsepower mechanical output at 100 percent load. The engine is fired with natural gas and plant fuel gas (boil-off gas and small quantities of heavy hydrocarbon vapors).
	Power Generation Unit 5: A generator set (Cummins Model QSV91G or equivalent) comprised of a spark-ignition, four-stroke, lean-burn internal combustion engine. The engine is rated at 2.00 MW of electrical output and 2,826 brake horsepower mechanical output at 100 percent load. The engine is fired with natural gas and plant fuel gas (boil-off gas and small quantities of heavy hydrocarbon vapors).
002	**Emergency Diesel Generator.** A generator set (Manufacturer and Model TBD or equivalent) comprised of a compression-ignition, internal combustion engine. The engine is rated at 1.14 MMBtu/hr and 450 brake horsepower mechanical output at 100 percent load. The engine is fired with diesel.
003	**Diesel Fire Water Pump.** A compression-ignition, internal combustion engine. (Manufacturer and Model TBD or equivalent). The engine is rated at 0.76 MMBtu/hr and 300 brake horsepower mechanical output at 100 percent load. The engine is fired with diesel.
004	**Acid Gas Removal Units Amine Treatment Systems with a common thermal oxidizer.** The thermal oxidizer will be rated at 35.00 MMBtu/hr unit and fired with natural gas and plant fuel gas (boil-off gas and small quantities of heavy hydrocarbon vapors).

005	**Hot Oil Heater No. 1.** (Manufacturer HEATEC, Inc. and Model TBD or equivalent) 3.48 MW Generator Nameplate Rating, 16 MMBtu/hr rated heat input capacity, natural gas and plant fuel gas (boil-off gas and small quantities of heavy hydrocarbon vapors) fired.
	Hot Oil Heater No. 2. (Manufacturer HEATEC, Inc. and Model TBD or equivalent) 3.48 MW Generator Nameplate Rating, 16 MMBtu/hr rated heat input capacity, natural gas and plant fuel gas (boil-off gas and small quantities of heavy hydrocarbon vapors) fired.
	Hot Oil Heater No. 3. (Manufacturer HEATEC, Inc. and Model TBD or equivalent) 3.48 MW Generator Nameplate Rating, 16 MMBtu/hr rated heat input capacity, natural gas and plant fuel gas (boil-off gas and small quantities of heavy hydrocarbon vapors) fired.
006	**Wet Pilot (Common Ground Flare).** Igniter heat input capacity of the three flares (wet pilot, dry pilot, cold vent) combined is 5.00 MMBtu/hr. The pilot is fired with natural gas and plant fuel gas (boil-off gas and small quantities of heavy hydrocarbon vapors) and sweep gas. *A common wet/dry ground flare for the three LNG trains for the safe disposal of combustible hydrocarbon vapor and liquid streams that result from start-up and shutdown of the liquefaction process, upsets and emergencies.*
	Dry Pilot (Common Ground Flare). Igniter heat input capacity of the three flares (wet pilot, dry pilot, cold vent) combined is 5.00 MMBtu/hr. The pilot is fired with natural gas and plant fuel gas (boil-off gas and small quantities of heavy hydrocarbon vapors) and sweep gas. *A common wet/dry ground flare for the three LNG trains for the safe disposal of combustible hydrocarbon vapor and liquid streams that result from start-up and shutdown of the liquefaction process, upsets and emergencies.*
	Cold Vent. Igniter heat input capacity of the three flares (wet pilot, dry pilot, cold vent) combined is 5.00 MMBtu/hr. The pilot is fired with natural gas and plant fuel gas (boil-off gas and small quantities of heavy hydrocarbon vapors) and sweep gas. *A single vent handles only the recovered vapors from Liquefied Natural Gas Carriers (LNGC's) in a warm CO_2 inerted condition (do not contain LNG or natural gas) upon arrival and Boil-Off-Gas (BOG) from the LNG storage tank in the event the BOG compression system fails.*

The Eagle Jacksonville LNG facility will also consist of miscellaneous support equipment. The following emissions units/activities are exempt from the requirement to obtain an air construction permit.

ID No.	Emissions unit/Activity	Rule
---	**Regeneration Gas Heater No. 1.** 6.0 MMBtu/hr rated heat input capacity, natural gas and plant fuel gas (boil-off gas and small quantities of heavy hydrocarbon vapors) fired.	62-210.300(3)(a)34., F.A.C.
---	**Regeneration Gas Heater No. 2.** 6.0 MMBtu/hr rated heat input capacity, natural gas and plant fuel gas (boil-off gas and small quantities of heavy hydrocarbon vapors) fired.	62-210.300(3)(a)34., F.A.C.
---	**Regeneration Gas Heater No. 3.** 6.0 MMBtu/hr rated heat input capacity, natural gas and plant fuel gas (boil-off gas and small quantities of heavy hydrocarbon vapors) fired.	62-210.300(3)(a)34., F.A.C.

---	**LNG Storage Tank.** 12,000,000-gallon capacity.	62-210.300(3)(b)1., F.A.C.
---	**Process Fugitive Piping Component Emissions.** The total VOC, methane and CO_{2e} emissions from the equipment leaks (from valves, pump seals, relief valves, flanges, connectors, and open-ended lines)	62-210.300(3)(b)1., F.A.C

2.0. PSD APPLICABILITY

The facility is not one of the 28 PSD major source categories subject to a PSD applicability threshold at 100 tpy of any primary pollutant. As a PSD non-categorical major source, the facility PSD applicability threshold is 250 tpy of any primary pollutant, which excludes fugitive emissions. The basis for this PSD non-categorical source regulatory determination appears below.

2.1 General PSD Applicability

For areas currently in attainment with the AAQS or areas otherwise designated as unclassifiable, the Department regulates major stationary sources of air pollution in accordance with Florida's PSD preconstruction review program as defined in Rule 62-212.400, F.A.C. Under preconstruction review, the Department first must determine if a project is subject to the PSD requirements ("PSD applicability review") and, if so, must conduct a PSD preconstruction review. A PSD applicability review is required for projects at new and existing major stationary sources. In addition, proposed projects at existing minor sources are subject to a PSD applicability review to determine whether potential emissions *from the proposed project itself* will exceed the PSD major stationary source thresholds. A facility is considered a major stationary source with respect to PSD if it emits or has the potential to emit:

- 250 tons per year or more of any regulated air pollutant; or
- 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the following 28 PSD-major facility categories: fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), Kraft pulp mills, Portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants, fossil fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants and charcoal production plants.

Once it is determined that a project is subject to PSD preconstruction review, the project emissions are compared to the "significant emission rates" defined in Rule 62-210.200, F.A.C. for the following pollutants: carbon monoxide (CO); nitrogen oxides (NO_X); sulfur dioxide (SO_2); particulate matter (PM); particulate matter with a mean particle diameter of 10 microns or less (PM_{10}); particulate matter with a mean particle diameter of 2.5 microns or less ($PM_{2.5}$); volatile organic compounds (VOC); lead (Pb); fluorides (F); sulfuric acid mist (SAM); hydrogen sulfide (H_2S); total reduced sulfur (TRS), including H_2S; reduced sulfur compounds, including H_2S; municipal waste combustor organics measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans; municipal waste combustor metals measured as particulate matter; municipal waste combustor acid gases measured as SO_2 and hydrogen chloride (HCl); municipal solid waste landfills emissions measured as non-methane organic compounds (NMOC); and mercury (Hg). In addition, significant emissions rate also means any emissions rate or any net emissions increase associated with a major stationary source or major modification which would construct within 10 kilometers of a Class I area and have an impact on such area equal to or greater than 1 $\mu g/m^3$, 24-hour average.

If the potential emission equals or exceeds the defined significant emissions rate of a PSD pollutant, the project is considered "significant" for the pollutant and the applicant must employ the Best Available Control Technology (BACT) to minimize the emissions and evaluate the air quality impacts. Although a facility or project may be *major* with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

2.2 PSD Applicability for Project

Both a Fuel Conversion Plant and a Petroleum Storage and Transfer Plant are one of the PSD 28 Major Facility Categories subject to a 100 tons per year (tpy), major source applicability threshold for the PSD requirements at 40 CFR 51.21.

There are no definitions in the PSD regulations for "fuel conversion plant," or "petroleum storage and transfer facility" in EPA's statute or a description of such types of facilities or plants. EPA has relied on case-by-case determinations in assessing source applicability.

EPA concluded in the July 31, 2003 memorandum for the Chevron Texaco, Port Pelican Terminal (http://www.epa.gov/region7/air/nsr/nsrmemos/pelican.pdf) that the process of vaporization of LNG to natural gas for delivery to a downstream infrastructure does not qualify the source as a "fuel conversion plant" under the Federal PSD rules at 40 CFR 52.21(b)(1)(i)(a) and (iii)(q).

EPA concluded in the September 26, 2017 memorandum for the Jordan Cove LNG facility (https://www.epa.gov/sites/production/files/2017-10/documents/jordcove.pdf) that LNG plants at marine terminals that cool natural gas into LNG for the purpose of transporting natural gas should not be considered "fuel conversion plants" as that term is used in the statutory definition of "major emitting facility" and the definition of "major stationary source" in the EPA regulations. EPA also concluded in this memorandum that LNG storage tanks at LNG plants like the Jordan Cove LNG project, should not be considered part of the petroleum storage and transfer plant source category as that term is used in the PSD provisions.

For an industry included in the list of 28 Major Facility Categories, the PSD applicability threshold is 100 tons per year of any PSD pollutant and fugitive emissions are required to be considered. For a facility not within an industry included in the list of the 28 Major Facility Categories, the PSD applicability threshold is 250 tons per year of any PSD pollutant and fugitive emissions are not required to be considered.

As shown in the below tables, the potential emissions from this project, including fugitive emissions, are below PSD Major source threshold of 250 tons per year.

3.0. Project Potential Emissions

3.1 Facility-Wide Summary.

The applicant facility-wide PTE emissions by primary pollutant, hazardous air pollutants (HAPs) and greenhouse gas emissions (GHG) are presented in **TABLE 2**. The applicant used these PTE emissions to determine that the facility is subject to Title V, it is not subject to PSD, and it is an area source of HAPs (see **TABLE 3**).

The Department's review of the facility emissions calculations suggests that the applicant may have understated the potential to emit emissions (PTE) from the power generators, EU 001. The Department's revised emissions calculations appear in **TABLE 4**. Using the Department's PTE emissions, the facility is subject to Title V, is not subject to PSD, and is an area source of HAPs (see **TABLE 5**).

The following sections present the basis of the PTE emissions calculated by emissions unit.

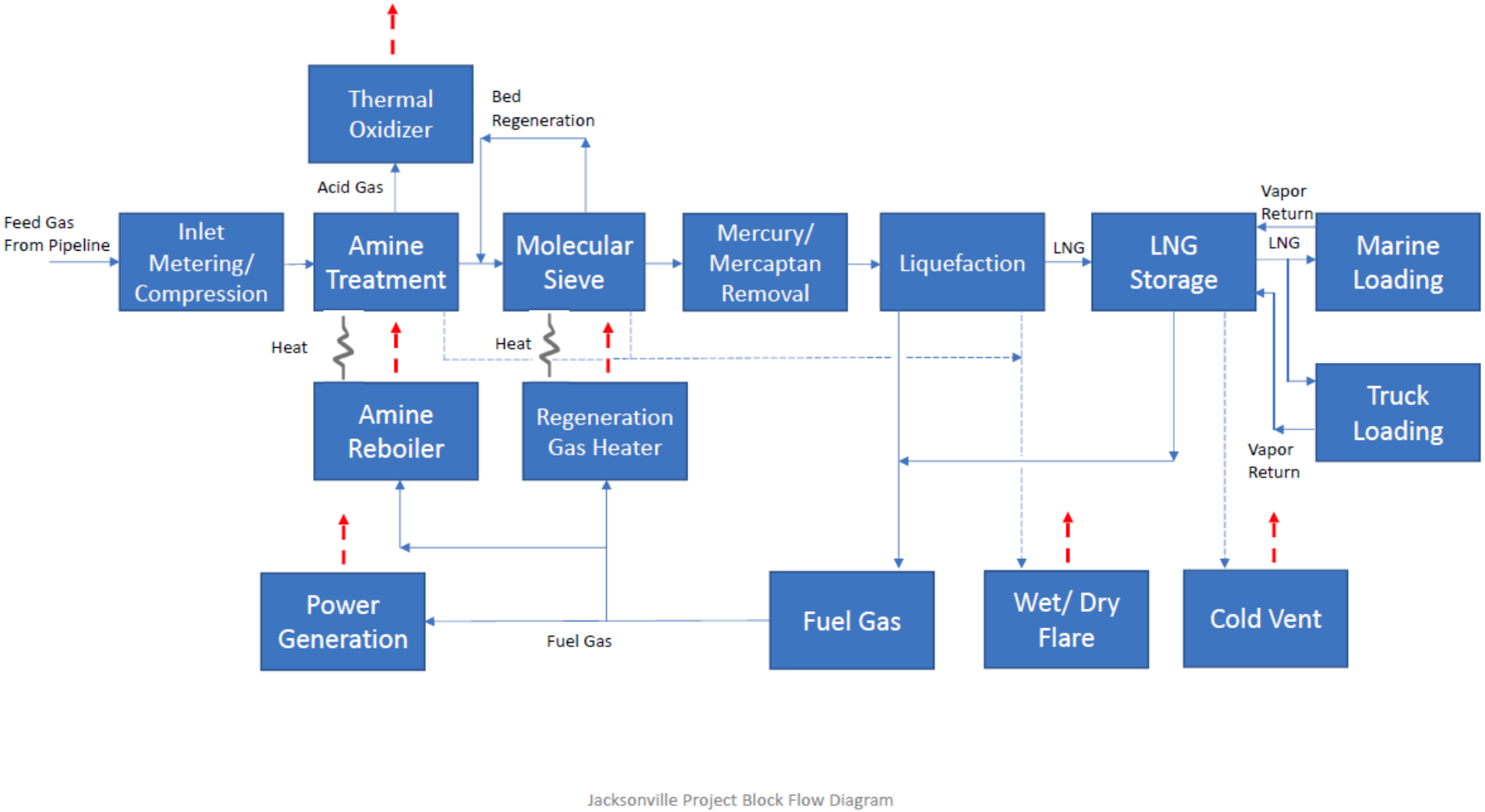


Figure 5: Process Flow Diagram of proposed Eagle Jacksonville LNG Facility

3.2 EU 001, Power Generator Units: This is the single largest source of primary pollutant and HAP emissions at the facility. The five main power generator engines generate emissions from the combustion of natural gas and plant fuel gas, which the applicant states will consist of boil-off gas (from LNG storage and marine and truck loading vapor returns), flash gas from the amine flash drums, and small quantities of heavy hydrocarbon vapor (from storage of heavy hydrocarbons recovered from the liquefaction process). The applicant assumed a design case for the inlet feed gas composition based on preliminary feed gas analysis, which is consistent with the information submitted in the Resource Reports to the Federal Energy and Regulatory Commission (FERC). However, the applicant anticipates that the final feed gas composition may vary upon commencement of operation, and will update its calculations, if needed.

The engines are subject to pollutant standards from NSPS 40 CFR 60 Subpart JJJJ for nitrogen oxides (NO_x), carbon monoxide (CO) and volatile organic compounds (VOC). Vendor emission rates-were used for particulate matter (PM). For the remaining pollutants where emission rates were not provided by the vendor, i.e.; Sulfur Dioxide (SO_2) and hazardous air pollutants (HAPs), the applicant used US EPA AP-42 emission factors for 4-stroke lean burn stationary internal combustion engines (Chapter 3, Section 3.2, Table 3.2-2.). In addition, the nitrous oxide (N_2O) emission factor from Table C-2 to Subpart C of 40 Code of Federal Regulations (CFR) 98 was used for this greenhouse gas pollutant.

The facility PTE emission calculations are based on the engine rating from the generator manufacturer's specification sheet of 17.09 MMBtu/hr (LHV), and each of the five power generators operating at 100% load for the restricted annual hours of operation of no more than 3,500 hours resulting in the five engines run time cap of 17,500 total hours combined per year or 12-month period.[3] The facility restricted the annual hours of operation of these units to avoid being classified as a PSD Major Source as well as a major source for HAP (formaldehyde). Emissions from these power generator units will exhaust uncontrolled.[4]

3.3 EU 002, 450 hp Emergency Diesel Generator: The 450 hp emergency diesel generator engine generates emissions from the combustion of diesel fuel. The facility used 40 CFR 60 Subpart IIII standards for particulate matter, non-methane hydrocarbons and nitrogen oxides ($NMHC+NO_x$), carbon Monoxide (CO), volatile organic compounds (VOC) and sulfur dioxide (SO_2). USEPA AP-42 emission factors were used for all hazardous air pollutants (Chapter 3, Table 3.3-2). Emission factors from Tables C-1 and C-2 to Subpart C of 40 Code of Federal Regulations (CFR) 98 were used for greenhouse gas pollutants carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). These pollutant emission factors multiplied by the engine rating and 100 hours per year of operation, consistent with the requirements of 40 CFR 60.4211(f)(2), were used to develop PTE emissions by pollutant. Emergency operation is unlimited. Emissions from the emergency generator engine will exhaust uncontrolled.

3.4 EU 003, 300 hp Diesel Fire Water Pump: The 300 hp emergency diesel generator engine generates emission from the combustion of diesel fuel. The facility used USEPA AP-42 emission factors for reciprocating engines for all hazardous air pollutants (Chapter 3, Table 3.3-2), 40 CFR 60 Subpart IIII standards for particulate matter, non-methane hydrocarbons and nitrogen oxides ($NMHC+NO_x$), carbon monoxide (CO), volatile organic compounds (VOC) and sulfur dioxide (SO_2), and emission factors from Tables C-1 and C-2 to Subpart C of 40 Code of Federal Regulations (CFR) 98 for greenhouse gas pollutants carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). PTE emissions calculated are based on the unit operating 100 hours per year, consistent with the requirements of 40 CFR 60.4211(f)(2). Emergency operation is unlimited. Emissions from the fire water pump engine will be uncontrolled.

[3] The applicant has requested limiting the annual hours of operation of the five power generators combined to no more than 17,500 hours (3,500 hours multiplied by 5 power generators). However, individual generators may operate for up to 8,760 hours per year.

[4] The Department revised the facility's potential emissions from the power generators. See **TABLE 4**.

3.5 EU 004, Acid Gas Removal Units Amine Treatment Systems: A common thermal oxidizer control unit generates emissions from the combustion of natural gas and plant fuel gas (boil-off gas and small quantities of heavy hydrocarbon vapor), pilot fuel and the waste acid gas resulting from the removal of carbon dioxide from the pipeline natural gas in the Amine Treatment Systems of the Acid Gas Removal Units for each of the three liquefaction trains.

The design destruction efficiency of the thermal oxidizer for VOC, Benzene, and Hydrogen Sulfide is 99.9 percent. Pre-control, potential emissions of these pollutants in the waste acid gas are 60.17 tons, 7.19 tons, and 17.81 tons on an annual basis. The applicant determined that the level of aggregate reduced sulfur compounds ambient air concentration from this source will be below the City of Jacksonville ambient standard at the fence-line based on applying the USEPA AERSCREEN dispersion model.

The high heating value of 1,020 Btu/scf for natural gas was used by the facility to determine potential emissions along with USEPA AP-42 emission factors for external combustion for all pollutants (Chapter 1, Section 1.4, Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4), except for carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). CO_2, CH_4 and N_2O emission factors from Tables C-1 and C-2 to Subpart C of 40 Code of Federal Regulations (CFR) 98 were used for these greenhouse gas pollutants.

3.6 EU 005, Hot Oil Heaters: The three Hot Oil Heaters generate emissions from the combustion of natural gas and plant fuel gas (compressed boil-off gas from the LNG storage tank, displaced vapors from the LNG loading operations, and gas from the LNG liquefaction bottoms vaporizer). The high heating value of 1,020 Btu/scf for natural gas was used by the facility to determine potential emissions. USEPA AP-42 emission factors for external combustion was used for all primary and HAP pollutants (Chapter 1, Section 1.4, Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4). Carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) emission factors come from Tables C-1 and C-2 to Subpart C of 40 Code of Federal Regulations (CFR) 98 for these greenhouse gas pollutants. PTE emissions calculated were based on operating at an unrestricted 8,760 hours per year. Emissions from these heaters will exit uncontrolled.

3.7 EU 006, Gas Venting to Flares: The Common Ground Flare (includes segregated multi point wet and dry flare systems) will handle the combustible hydrocarbon vapor and liquid streams that result from the start-up and shutdown of the liquefaction process, upset conditions and emergencies. The Cold Vent will handle recovered vapors from Liquefied Natural Gas Carriers (LNGC's) in a warm CO_2 inerted condition (do not contain LNG or natural gas) upon arrival. The Cold Vent will also act as a stand-by-flare to handle the Boil-Off-Gas (BOG) from the LNG storage tank in the event of failure of the BOG compression system. Primary pollutants, HAPs and GHG emissions exit from the combustion of natural gas, plant fuel gas (boil-off gas and small quantities of heavy hydrocarbon vapor) and sweep gas.[5] The flares reduce VOC, HAP and GHG emissions. The high heating value of 1,020 Btu/scf for natural gas was used by the facility to determine potential emissions along with USEPA AP-42 emission factors for external combustion for all pollutants (Chapter 1, Section 1.4, Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4), and a DRE of 98 percent, except for carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) emission factors from Tables C-1 and C-2 to Subpart C of 40 Code of Federal Regulations (CFR) 98 was used for these greenhouse gas pollutants). These calculations are based on operating at an unrestricted 8,760 hours per year. The applicant determined that the level of aggregate reduced sulfur compounds from this source will be below the City of Jacksonville ambient standard at the fence-line based on USEPA AERSCREEN dispersion modeling output results.

3.8 Emission Sources Exempt from requiring an air construction permit

Process Fugitive Piping Component Emissions: The process fugitive emissions include potential equipment leak emissions that were estimated using the American Petroleum Institute's (API's) factors found in API Publication 4615. The total VOC, methane and CO_{2e} emissions from the leaks (from valves, pump seals, relief valves, flanges, connectors, and open-ended lines) were calculated. The applicant determined that the level of

[5] Fuel gas sweeps the flare header to prevent the ingress of air through the open stack, which can create an inflammable mixture of hydrocarbons and oxygen inside the system.

aggregate reduced sulfur compounds from this source will be below the City of Jacksonville ambient standard at the fence-line based on USEPA AERSCREEN dispersion modeling output results.[6] Emission factors from Tables C-1 and C-2 to Subpart C of 40 Code of Federal Regulations (CFR) 98 was used for the greenhouse gas pollutants.

Regeneration Gas Heaters: The three Regeneration Gas Heaters generate emissions from the combustion of natural gas and plant fuel gas (compressed boil-off gas from the LNG storage tank, displaced vapors from the LNG loading operations, and gas from the LNG liquefaction bottoms vaporizer). The high heating value of 1,020 Btu/scf for natural gas was used by the facility to determine potential emissions. USEPA AP-42 emission factors for external combustion was used for all primary and HAP pollutants (Chapter 1, Section 1.4, Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4). Carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) emission factors come from Tables C-1 and C-2 to Subpart C of 40 Code of Federal Regulations (CFR) 98 for these greenhouse gas pollutants. PTE emissions calculated were based on operating at an unrestricted 8,760 hours per year. Emissions from these heaters will exit uncontrolled.

4.0 RULE APPLICABILTY ANALYSIS

4.1 Title V Applies

Based on the information submitted, the facility will be classified as a Title V Major Source. This is due to potential CO and NO_x emissions each being greater than the 100 tons per year applicability threshold.

4.2 Area Source of Hazardous Air Pollutants

Based on the information submitted, individual HAP emissions will be below 10 tons per year, and any combination of hazardous air pollutants will be less than 25 tons per year. To achieve individual HAP emissions below 10 tons per year, the facility restricted hours of operation from the Power Generators (EU 001). For these reasons, the facility will be classified as a synthetic area source of HAP emissions.

4.3 Acid Rain Program [40 CFR 72]

The Acid Rain Program is not applicable to the facility. 40 CFR 72.7 provides a new unit exemption. The new unit exemption applies to each engine at the proposed Eagle Jacksonville LNG facility as the potential electrical output of each engine is less than 25 MW and gaseous fuel will be burned.

4.4 40 CFR 98 Mandatory Greenhouse Reporting

The facility will be subject to mandatory GHG reporting to the EPA pursuant to 40 CFR 98 - Mandatory Greenhouse Gas Reporting. The facility will include stationary combustion and appears to meet the LNG storage and LNG import/export equipment industry segments in 40 CFR 98.230 of 40 CFR 98 Subpart W – Petroleum and Natural Gas Systems.

Reports of GHG emissions are to be submitted directly to the EPA under the provisions in 40 CFR 98.4 and 98.5. This regulation will be an applicable requirement for purposes of the permitting requirements of Chapter 62-213, F.A.C.

[6] The applicant describes fugitive emissions using a point source description and nearest downwind distance of 243 meters. In an abundance of caution, the Division conducted dispersion modeling using USEPA AERMOD using Meteorology from the Jacksonville Craig ASOS station for 2014-2018, terrain processed using AERMAP, and the fugitive source modeled as an area source. Compliance is shown with the COJ ambient standard.

4.5 Federal Regulation Applicability (NSPS and NESHAP)

The U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department updates the adoption of these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

Federal regulations adopted by reference are given in Rule 62-204.800, F.A.C. State regulations approved by EPA are given in 40 CFR 52, Subpart K – Florida, also known as the State Implementation Plan (SIP) for Florida.

NSPS Applicability

40 CFR 60.18 - General control device and work practice requirements.

The three proposed flares are not regulated by the requirements of the NSPS section because they will not be used as control devices used to comply with applicable subparts of 40 CFR 60 or 61. [40 CFR 60.18(a)]

40 CFR 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units *(Applicable)*

Pursuant to 40 CFR 60.40c, this Subpart applies to each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h).

The Subpart defines (40 CFR 60.41c) a *steam generating unit* to mean, "*a device that combusts any fuel and produces steam or heats water or heats any heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart".*

Process heater means *a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.*

1. The rated heat input capacity of each of the three Hot Oil Heaters is 16 MMBtu/hr. As such, each of the heaters meets the applicability requirements of NSPS Subpart Dc. Each heater will fire natural gas and plant fuel gas only. Therefore, in accordance 40 CFR 60.48c(g), the facility is required to record the quantity of natural gas/plant fuel gas combusted in each heater.

   Each heater is subject to:

   Notification of Construction and Actual Startup: The Permittee shall submit for each Hot Oil Heater a notification of the date of construction and actual startup, as provided by 40 CFR 60.7 to the Compliance Authority. This notification shall include the design heat input capacity of each Hot Oil Heater and identification of fuels to be combusted in each unit.

   [40 CFR 60.48c(a)(1), Rule 62-204.800(8)(b)4., F.A.C., Rule 2.201, JEPB]

   Fuel Recordkeeping: The Permittee shall maintain monthly records of the quantity of natural gas combusted in each heater. All required records shall be maintained by the Permittee for a period of two years following the date of such record.

   [40 CFR 60.48c(g)(2), 40 CFR 60.48c(i), Rule 62-204.800(8)(b)4., F.A.C., Rule 2.201, JEPB]

TABLE 2. Applicant's Estimated Facility-wide Emissions

Potential to Emit (tons per year)[a]									
Pollutant	**(3) Hot Oil Heaters [b]**	**(3) Regeneration Gas Heaters[b]**	**Emergency Diesel Generator[c]**	**Diesel Firewater Pump[c]**	**Power Generators[d]**	**Acid Gas Removal Units Amine Treatment Systems[b]**	**(3) Flares[b,e]**	**Fugitive Piping Components[f]**	**Total**
CO	17.31	6.49	0.13	0.09	109.03	6.01	2.58	---	**141.64**
NO_X	20.61	7.73	0.15	0.10	54.51	14.13	6.05	---	**103.28**
PM	1.57	0.59	0.01	0.005	3.27	1.14	0.490	---	**7.08**
PM_{10}	1.57	0.59	0.01	0.005	3.27	1.14	0.490	---	**7.08**
$PM_{2.5}$	1.57	0.59	0.01	0.005	3.27	1.14	0.490	---	**7.08**
SO_2	0.12	0.05	0.001	0.001	0.09	37.03	0.51	---	**37.80**
VOC	1.13	0.43	0.15	0.10	46.06	0.83	1.94	0.01	**50.65**
Pb	---	---	---	----	---	---	---	---	**---**
Hg	5.36E- 05	2.01E- 05	---	---	---	---	---	---	**0.0000737**
H_2S	---	---	---	---	---	0.002	0.001	6.98E-05	**0.00307**
Formaldehyde	0.02	0.006	---	---	7.90	0.01	0.005	---	**7.93**
n-Hexane	0.37	0.14	---	---	---	---	---	---	**0.51**
Total HAPS	0.39	0.15	2.66E- 04	1.77E- 04	11.4	0.29	0.59	0.003	**12.82**
GHG CO_2e [g]	24,600	9,225	9.36	6.24	17,497	17,937	2,562	15	**71,851.60**

[a] Based on the facility design of three liquefaction trains.

[b] Based on 8,760 hours of operation.

[c] Based on 100 hours of operation.

[d] Hours of operation based on 17,500 total hours per year of all 5 generators combined annually. However, individual generators may operate for up to 8,760 hours per year.

[e] Total emissions for one wet pilot and one dry pilot (for the Common Ground Flare), and a cold vent.

[f] Primary pollutant fugitive emissions are not included in Title V Major Source and PSD Major Source Applicability per 62-210.200, F.A.C. rules.

[g] GHG (CO_2e basis) = sum of emission rates of CO_2, CH_4, and N_2O using global warming potentials: CO_2=1, CH_4 = 25, NO_x =298 from 40 CFR 98 Table A-1.

TABLE 3. Applicant's PSD and Title V Applicability

	CO (tons)	NO_x (tons)	SO_2 (tons)	$PM/PM_{10}/PM_{2.5}$ (tons)	VOC (tons)	Ind HAP (tons) Total HAP (tons)	CO_2e (tons)
Facility Potential Emissions	141.64	103.28	37.80	7.08	50.65	7.93[a] 12.82	71,851.60
PSD Applicability Threshold	250	250	250	250	250		100,000[b]
Title V Applicability Threshold	100	100	100	100	100	10 25	
Applicability to PSD Review?	No	No	No	No	No		No
Title V Applicability?	Yes	Yes	No	No	No	No	

[a] Individual HAP is Formaldehyde.

[b] According to 40 CFR 52.21, six greenhouse gases (GHG), are also subject to regulation at new stationary sources that will emit or have the potential to emit 100,000 tons/year or more expressed as the carbon dioxide equivalent emissions (CO_2e). On June 23, 2014, the Supreme Court issued a decision addressing GHG as a pollutant for PSD or Title V applicability[7]. EPA may not treat greenhouse gases as an air pollutant for purposes of determining whether a source is a major source required to obtain a PSD or Title V Permit. A source cannot become subject to PSD review solely on the basis of GHG emissions.

[7] U.S. Supreme Court opinion dated June 23, 2014. Link to Supreme Court Opinion. EPA guidance dated July 24, 2014. Link to EPA Guidance.

TABLE 4. Department's Estimated Facility-wide Emissions

Potential to Emit (tons per year)[a]									
Pollutant	**(3) Hot Oil Heaters[b] (EU 005)**	**(3) Regeneration Gas Heaters[b]**	**Emergency Diesel Generator[c] (EU 002)**	**Diesel Firewater Pump[c] (EU 003)**	**Power Generators[d] (EU 001)**	**Acid Gas Removal Units Amine Treatment Systems[b] (EU 004)**	**(3) Flares[b,e]**	**Fugitive Piping Components[f]**	**Total**
CO	17.31	6.49	0.13	0.09	109.03	6.01	2.58	---	**141.64**
NO_X	20.61	7.73	0.15	0.10	54.51	14.13	6.05	---	**103.28**
PM	1.57	0.59	0.01	0.005	3.27	1.14	0.490	---	**7.08**
PM_{10}	1.57	0.59	0.01	0.005	3.27	1.14	0.490	---	**7.08**
$PM_{2.5}$	1.57	0.59	0.01	0.005	3.27	1.14	0.490	---	**7.08**
SO_2	0.12	0.05	0.001	0.001	0.10[h]	37.03	0.51	---	**37.81**
VOC	1.13	0.43	0.15	0.10	46.06	0.83	1.94	0.01	**50.65**
Pb	---	---	---	----	---	---	---	---	**---**
Hg	5.36E- 05	2.01E- 05	---	---	---	---	---	---	**0.0000737**
H_2S	---	---	---	---	---	0.002	0.001	6.98E-05	**0.00307**
Formaldehyde	0.02	0.006	---	---	9.10[h]	0.01	0.005	---	**9.14**
n-Hexane	0.37	0.14	---	---	---	---	---	---	**0.51**
Total HAPS	0.39	0.15	2.66E- 04	1.77E- 04	12.6[h]	0.29	0.59	0.003	**14.02**
CO_2e[g]	24,600	9,225	9.36	6.24	20,156.5[h]	17,937	2,562	15	**74,511.1**

[a] Based on the facility design of three liquefaction trains.

[b] Based on 8,760 hours of operation.

[c] Based on 100 hours of operation.

[d] Hours of operation based on 17,500 total hours per year of all 5 generators combined annually. However, individual generators may operate for up to 8,760 hours per year.

[e] Total emissions for one wet pilot and one dry pilot (for the Common Ground Flare), and a cold vent.

[f] Primary pollutant fugitive emissions are not included in Title V Major Source and PSD Major Source Applicability per 62-210.200, F.A.C. rules.

[g] GHG (CO_2e basis) = sum of emission rates of CO_2, CH_4, and N_2O using global warming potentials: CO_2=1, CH_4 = 25, NO_x =298 from 40 CFR 98 Table A-1.

[h] Department corrected value. Facility estimated pollutant PTE multiplied by 1.152 (see discussion for formaldehyde emissions is Section 5.1 of Technical discussion)

TABLE 5. Department's PSD and Title V Applicability Summary Table

	CO (tons)	NO_x (tons)	SO_2 (tons)	PM/ PM_{10}/ $PM_{2.5}$ (tons)	VOC (tons)	Ind HAP (tons) / Total HAP (tons)	CO_2e (tons)
Facility Potential Emissions in TPY	141.64	103.28	37.81	7.08	50.65	9.14[a,b] / 14.02[b]	74,511.1
PSD Applicability Threshold	250	250	250	250	250		100,000[c]
Title V Applicability Threshold	100	100	100	100	100	10 / 25	
Applicability to PSD Review?	No	No	No	No	No		No
Title V Applicability?	Yes	Yes	No	No	No	No	

[a] Individual HAP is Formaldehyde.

[b] Department corrected value. Facility estimated pollutant PTE multiplied by 1.152 (see discussion for formaldehyde emissions is Section 5.1 of Technical discussion).

[c] According to 40 CFR 52.21, six greenhouse gases (GHG), are also subject to regulation at new stationary sources that will emit or have the potential to emit 100,000 tons/year or more expressed as the carbon dioxide equivalent emissions (CO_2e). On June 23, 2014, the Supreme Court issued a decision addressing GHG as a pollutant for PSD or Title V applicability[8]. EPA may not treat greenhouse gases as an air pollutant for purposes of determining whether a source is a major source required to obtain a PSD or Title V Permit. A source cannot become subject to PSD review solely on the basis of GHG emissions.

40 CFR 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units *(Applicable)*

Reporting: The Permittee shall keep records and submit reports to the Compliance Authority of the following information. The reporting period for the reports is each six-month period. All reports shall be postmarked by the 30th day following the end of each reporting period.

Calendar dates covered in the reporting period.

The quantity of natural gas combusted in each heater.

[40 CFR 60.48c(j), Rule 62-4.070, F.A.C., Rule 62-204.800(8)(b)4., F.A.C., Rules 2.1401, 2.201, JEPB]

2. The rated heat input capacity of each of the three Regeneration Gas Heaters are 6.0 MMBtu/hr. As such, these units do not meet the applicability requirements of NSPS Subpart Dc.

40 CFR 60 Subpart E- Standards of Performance for Incinerators *(Not Applicable)*

This subpart does not apply as there are no incinerators being proposed as a part of this project.

The Subpart defines (40 CFR 60.51(a)) an *Incinerator* to mean, *"any furnace used in the process of burning solid waste for the purpose of reducing the volume of the waste by removing combustible matter."*

[8] U.S. Supreme Court opinion dated June 23, 2014. Link to Supreme Court Opinion. EPA guidance dated July 24, 2014. Link to EPA Guidance.

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 ***(Not Applicable)***

1. The project includes the construction of heating medium tanks, glycol tanks, amine storage tanks, and demineralized water tanks. However, each of these tanks will be less than 550 gallons in storage capacity, which is less than the 75 m^3 Subpart applicability size (19, 812 gallons).
2. The facility anticipates construction of three condensate storage tanks associated with the liquefaction system. Each of the condensate storage tanks will be larger than 75 m^3 and store volatile organic liquids. However, pursuant to 40 CFR 60.110b(d)(4), the Subpart does not apply to vessels used for petroleum or condensate stored, processed, or treated prior to custody transfer if the design capacity of such tanks is less than or equal to 1,589.874 m^3.
3. The facility plans to install a 12,000,000-gallon (45,000 m^3) LNG product Storage Tank. The LNG will be stored in the tank under cryogenic conditions (approximately at a -260 ºF). The majority of LNG consists of methane, which is excluded from the definition of volatile organic compounds in 40 CFR 51.100(s)(1). The VOC content of LNG is anticipated to be negligible (actual VOC content in the LNG will be ~0%, or on a worst-case basis 1%). The partial pressure of the VOC components within LNG (assumed to be similar to propane), at this temperature is approximately 0.0007 kPa, which is less than the NSPS Kb applicability threshold of 3.5 kPa for this tank size. Therefore, Subpart Kb would not apply.

40 CFR 60 Subpart VVa- Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 ***(Not Applicable)***

This subpart does not apply because the proposed facility does not meet the definition of a Synthetic Organic Chemicals Manufacturing Industry as it will not produce, as intermediates or final products, one or more of the chemicals listed in 40 CFR 60.489.

40 CFR 60 Subpart GGGa—Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 ***(Not Applicable)***

This subpart does not apply because the proposed facility does not meet the definition of a petroleum refinery.

The Subpart defines (40 CFR 60.591a) *Petroleum refinery* to mean, *"any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through the distillation of petroleum, or through the redistillation, cracking, or reforming of unfinished petroleum derivatives."*

40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines ***(Applicable)***

This subpart is applicable to owners or operators of compression ignition (CI) internal combustion engines (ICE) that commenced construction, reconstruction or modification after July 11, 2005 and were manufactured after April 1, 2006 if not fire pump engines, and after July 1, 2006 if certified fire pump engines. This Subpart is applicable to the facility proposal to install a new 450 hp Emergency Stationary CI ICE (EU 002) for the air compressor package and a new 300 hp Emergency CI ICE firewater pump (EU 003) for fire suppression in the event of a fire within the facility.

As required by the Subpart, the facility will purchase and install these engines certified to the emissions standards for the same model year and maximum engine power.

The Department is requiring the submittal of the Certificate of Conformity for both these engines to the Compliance Authority as a condition of the draft permit.

40 CFR 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines *(Applicable)*

This standard applies to owners and operators of stationary spark-ignition internal combustion engines that commence construction after June 12, 2006, where the engine is manufactured on or after July 1, 2007.

The facility proposes to install five 2,826 hp lean burn new non-emergency stationary SI ICE for power generation. These engines will fire natural gas and plant fuel gas, which the applicant states is boil-off gas and small quantities of heavy hydrocarbon vapors. It is expected that the plant fuel gas will combust similarly to natural gas.

40 CFR 60, Section 60.4233(e) requires each engine to comply with the emission standards in Table 1 of the Subpart. Table 1 requires that NO_x emissions not exceed 1.0 g/bhp-hr, the CO emissions not exceed 2.0 g/bhp-hr, and the VOC emissions (excluding formaldehyde) not exceed 0.7 g/bhp-hr.

The facility will comply with these Subpart JJJJ pollutant emissions standards by purchasing certified engines.

The Department is requiring the submittal of the Certificate of Conformity for these engines to the Compliance Authority as a condition of the draft permit.

The facility will comply with the Subpart requirements including keeping maintenance records and documentation related to engine certification. The certified engines and controls will be maintained per the manufacturer's emission-related written instructions. The facility expects that air-to-fuel controllers will be used to meet the emission standards. The air-to-fuel controllers will be maintained and operated to ensure proper operation of the engines to minimize emissions at all times.

40 CFR 60 Subpart OOOOa- Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015 *(Not Applicable)*

This Subpart applies to onshore affected facilities: certain well completions, pneumatic controllers, fugitive emissions from well sites and compressor stations, Equipment leaks at natural gas processing Plants, sweetening units at natural gas processing plants, reciprocating compressors, centrifugal compressors and storage vessels which are constructed, modified, or reconstructed after September 18, 2015.

The applicant states that the proposed project does not include a natural gas processing plant as defined under the Subpart and the facility does not fall under the category of natural gas transmission as defined in 40 CFR 60.5430a since the project is not a long distance LNG transport operation consisting of pipelines for long distance transport of natural gas and does not have equipment associated with long distance transport (mains, valves, meters, boosters, etc.).

Natural gas processing plant (gas plant) means *any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both. A Joule-Thompson valve, a dew point depression valve, or an isolated or standalone Joule-Thompson skid is not a natural gas processing plant.*

Natural gas transmission means *the pipelines used for the long distance transport of natural gas (excluding processing). Specific equipment used in natural gas transmission includes the land, mains, valves, meters, boosters, regulators, storage vessels, dehydrators, compressors, and their driving units and appurtenances, and equipment used for transporting gas from a production plant, delivery point of purchased gas, gathering system, storage area, or other wholesale source of gas to one or more distribution area(s).*

The applicant also states that the LNG storage tanks at the facility do not meet the applicable requirements of 40 CFR 60.5365a(e) since each storage vessel has a potential to emit less than 6 TPY of VOC emissions.

In accordance with 40 CFR 60.5365a(e), a storage vessel affected facility is a single storage vessel with the potential for VOC emissions equal to or greater than 6 TPY as determined according to this section. The potential

for VOC emissions must be calculated using a generally accepted model or calculation methodology, based on the maximum average daily throughput determined for a 30-day period of production prior to the applicable emission determination deadline specified in this subsection. The determination may take into account requirements under a legally and practically enforceable limit in an operating permit or other requirement established under a federal, state, local or tribal authority.

In accordance with 40 CFR 60.5360a, this *Subpart establishes emission standards and compliance schedules for the control of the pollutant greenhouse gases (GHG). The greenhouse gas standard in this subpart is in the form of a limitation on emissions of methane from affected facilities in the crude oil and natural gas source category that commence construction, modification, or reconstruction after September 18, 2015. This subpart also establishes emission standards and compliance schedules for the control of volatile organic compounds (VOC) and sulfur dioxide (SO_2) emissions from affected facilities in the crude oil and natural gas source category that commence construction, modification or reconstruction after September 18, 2015. The effective date of the rule is August 2, 2016.*

40 CFR 60.5430a defines *Crude oil and natural gas source category* to mean:

(1) Crude oil production, which includes the well and extends to the point of custody transfer to the crude oil transmission pipeline or any other forms of transportation; and

(2) Natural gas production, processing, transmission, and storage, which include the well and extend to, but do not include, the local distribution company custody transfer station.

40 CFR 60.5430a defines *Local distribution company (LDC) custody transfer station* to mean:

A metering station where the LDC receives a natural gas supply from an upstream supplier, which may be an interstate transmission pipeline or a local natural gas producer, for delivery to customers through the LDC's intrastate transmission or distribution lines.

The proposed Eagle Jacksonville LNG facility project will receive its feed of pipeline gas from a local distribution company custody transfer station. As such, the facility is not in the crude oil and natural gas source category. The Subpart is therefore not applicable to the facility project.

NSPS Subpart TTTT – Greenhouse Gas Emissions for Electric Generating Units

This Subpart establishes emission standards and compliance schedules for the control of greenhouse gas (GHG) emissions from a steam generating unit, Integrated gasification combined cycle facility (IGCC), or a stationary combustion turbine that commences construction after January 8, 2014 or commences modification or reconstruction after June 18, 2014.

The proposed project includes five new 2,826 hp lean burn non-emergency stationary SI ICE for power generation on site, that have a rated capacity of 17.09 MMBtu/hr (LHV) each[9]. This is less than the minimum base load rating of 250 MMBtu/hr of fossil fuel applicability threshold in 40 CFR 60.5509(a)(1). The proposed stationary ICE do not appear to meet the Subpart definition of electric generating unit.

Therefore, NSPS Subpart TTTT does not apply to the five power generation engines that are part of the proposed project.

NESHAP Applicability

Part 61 *(Not Applicable)*

40 CFR 61 NESHAP regulations apply to the following compounds listed as HAPs prior to the Clean Air Act Amendments of 1990:

[9] At LNG GHV ((see discussion for formaldehyde emissions is Section 5.1 of Technical discussion), 19.69 MMBtu/hr and below Subpart minimum base load rating of 150 MMBtu/hr of fossil fuel.

- Asbestos
- Benzene
- Beryllium
- Coke oven emissions
- Inorganic arsenic
- Mercury
- Radionuclides
- Vinyl chlorides

There are no requirements under 40 CFR Part 61 as this proposed project will not emit these pollutants from a source type included in the applicable standards.

Part 63

NESHAPs that are not applicable because the proposed facility is not a major source of HAP

Because of the minor HAP source status of the proposed project, the major source NESHAP subparts and the Clean Air Act Section 112(g) [Case-by-Case MACT Determination] do not apply to this project. The following NESHAP subparts are not applicable because they apply to major sources of HAP:

- 40 CFR 63 Subpart I - National Emission Standards for Organic Hazardous Air Pollutants for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks
- 40 CFR 63 Subpart HHH - National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities
- 40 CFR 63 Subpart EEEE - National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)
- 40 CFR 63 Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

NESHAPs that are not applicable because they are not referenced in any Subpart of 40 CFR 60, 61, or 63

- 40 CFR 63 Subpart H – National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks
- 40 CFR 63 Subpart OO - National Emission Standards for Tanks—Level 1
- 40 CFR 63 Subpart PP - National Emission Standards for Containers
- NESHAP Subpart QQ – National Emission Standards for Surface Impoundments
- 40 CFR 63 Subpart SS - National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process
- 40 CFR 63 Subpart TT - National Emission Standards for Equipment Leaks—Control Level 1
- 40 CFR 63 Subpart UU - National Emission Standards for Equipment Leaks—Control Level 2 Standards
- 40 CFR 63 Subpart VV - National Emission Standards for Oil-Water Separators and Organic-Water Separators
- 40 CFR 63 Subpart WW - National Emission Standards for Storage Vessels (Tanks)—Control Level 2

40 CFR 63 Subpart Y – Marine Tank Vessel Loading Operations *(Not Applicable)*

The applicant states that this Subpart is not applicable because 40 CFR 63 Subpart Y applies to marine vessel loading operations at facilities that are major sources of HAPs and this facility is an area source of HAPs. In addition, because the marine tank vessel loading operations at the facility would occur at loading berths that only

transfer liquids containing organic HAPs as impurities, as the term is defined in 40 CFR 63.561, Subpart Y does not apply to the operations of this Project.

The proposed project does not meet the applicability of 40 CFR 63.560(a), 40 CFR 63.560(b), or 40 CFR 63.560(c) as the projects is not a existing source, it is not a major source of HAP, does not meet the definition of a source with emissions less than 10 and 25 tons, is not going to load either gasoline or crude oil from a marine tank vessel loading operation and therefore does not meet the definition of either the source(s) with throughput less than 10 M barrels and 200 M barrels or the source(s) with throughput of 10 M barrels or 200 M barrels, and does not meet the definition of an affected source.

Furthermore, the facility states the marine tank vessel loading operations at the facility would occur at loading berths that only transfer liquids containing organic HAPs as impurities, as defined in 40 CFR 63.561. Therefore, the MACT standards in 40 CFR 63.562(b) and (d) are not applicable in accordance with 40 CFR 63.560(d)(5).

40 CFR 63 Subpart HH-National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities *(Not Applicable)*

The applicant states that this Subpart is not applicable because the proposed facility is not an oil and natural gas production facility per the Subpart definition.

It is noted that the proposed project inlet is pipeline quality natural gas that is already completely "processed".

It does not appear that the proposed facility will process, upgrade, or store hydrocarbon liquids as noted in 40 CFR 63.760(a)(2) nor will the proposed project process, upgrade, or store natural gas prior to transmission/storage, or final user delivery as noted in 40 CFR 63.760(a)(3).

§63.760 Applicability and designation of affected source.

(a) This subpart applies to the owners and operators of the emission points, specified in paragraph (b) of this section that are located at oil and natural gas production facilities that meet the specified criteria in paragraphs (a)(1) and either (a)(2) or (a)(3) of this section.

(2) Facilities that process, upgrade, or store hydrocarbon liquids.

(3) Facilities that process, upgrade, or store natural gas prior to the point at which natural gas enters the natural gas transmission and storage source category or is delivered to a final end user. For the purposes of this subpart, natural gas enters the natural gas transmission and storage source category after the natural gas processing plant, when present. If no natural gas processing plant is present, natural gas enters the natural gas transmission and storage source category after the point of custody transfer.

The Subpart definition, Hydrocarbon liquid means any naturally occurring, unrefined petroleum liquid.

40 CFR 63 Subpart YY - National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards *(Not Applicable)*

This Subpart is not applicable because the proposed project is not one of the source categories identified in 40 CFR 63.1100.

40 CFR 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines *(Applicable)*

Each of the SI engines from the five new generators and the CI engines from the new 450 hp Emergency Stationary CI ICE for the air compressor package and new 300 hp Emergency CI ICE firewater pump are subject to 40 CFR 63, Subpart ZZZZ – *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)*. The engines will be classified as new engines pursuant to 40 CFR 63.6590(a)(2)(iii) because construction will commence after June 12, 2006.

Pursuant to 40 CFR 63.6590(c) and (c)(1), new stationary RICE located at area source meet the requirements of this part by meeting the requirements of 40 CFR Part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements under 40 CFR 63 Subpart ZZZZ apply for these engines.

40 CFR 63 Subpart UUUUU –National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units *(Not Applicable)*

This Subpart is not applicable because none of the proposed emission units meet the definition of a coal-fired or an oil- fired electric utility steam generating unit.

40 CFR 63 Subpart BBBBBB-National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities *(Not Applicable)*

The Subpart is not applicable as the proposed facility does not meet the definition of a bulk gasoline terminal, pipeline breakout station, pipeline pumping station, and bulk gasoline plant.

40 CFR 63 Subpart JJJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources *(Not Applicable)*

Pursuant to 40 CFR 63.11193, this Subpart applies to owners or operators of an industrial, commercial, or institutional boiler as defined in §63.11237 of the Subpart that is located at, or is part of, an area source of HAP.

Boiler means an enclosed device using controlled flame combustion in which water is heated to recover thermal energy in the form of steam and/or hot water. Controlled flame combustion refers to a steady-state, or near steady-state, process wherein fuel and/or oxidizer feed rates are controlled. A device combusting solid waste, as defined in §241.3 of this chapter, is not a boiler unless the device is exempt from the definition of a solid waste incineration unit as provided in section 129(g)(1) of the Clean Air Act. Waste heat boilers, process heaters, and autoclaves are excluded from the definition of Boiler.

This Subpart is not applicable to the three Hot Oil Heaters and the three Regeneration Heaters because these units are heaters that will only burn gaseous fuel.

4.6 State Requirements

Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Rules 62-4, 62-210 and 62-212, F.A.C.

This project is subject to the applicable rules and regulations defined in the following Chapters of the Florida Administrative Code.

Chapter 62-4, F.A.C.

Rule 62-4.070(1), F.A.C., Standards for Issuing or Denying Permits; Issuance; Denial.

This rule applies to all permitting decisions:

- A permit shall be issued to the applicant upon such conditions as the Department may direct, only if the applicant affirmatively provides the Department with reasonable assurance based on plans, test results, installation of pollution control equipment, or other information, that the construction, expansion, modification, operation, or activity of the installation will not discharge, emit, or cause pollution in contravention of Department standards or rules.

Rule 62-210.200 (PTE), F.A.C.

The facility has self-limited the annual hours of operation of the five power generators operating at 100% load to no more than 17,500 hours for all five power generators combined. This restricted annual hours of operation of these units avoids the facility being classified as a PSD Major Source for the pollutant CO or a major source of HAPs.

Rule 62-210.300, F.A.C., Permits Required

Unless exempted, the owner or operator of any facility or emissions unit which emits or can reasonably be expected to emit any air pollutant shall obtain appropriate authorization from the Department prior to undertaking any activity at the facility or emissions unit for which such authorization is required.

Rule 62-210.300(3)(a)34., F.A.C., Exemptions from Air Construction Permitting

- The applicant asserts that the three Hot Oil Heaters and the three Regeneration Gas Heaters meet this exemption criteria. The facility will ensure that the annual fuel usage limit of 375 MMscf/year requirements of this exemption are met on a 12-month basis upon construction. If the annual fuel usage limits based on as-build design and operation changes, Eagle will submit a permit revision.
- The Department has determined that the three Hot Oil Heaters and the Three Regeneration Gas Heaters **do not** meet the exemption criteria of Rule 62-210.300(3)(a)34., F.A.C.
    - Based on the information provided in the submitted application, the collective annual amount of fuel that will be burned by all units claiming this exemption at the facility would exceed the 375 million standard cubic feet of natural gas. The facility would have to establish a fuel limitation on these heaters in order to meet the annual natural gas usage limit.
    - The Department therefore has determined that the Hot Oil Heaters require an air construction permit in accordance with Rule 62-210.300, F.A.C. Furthermore, these Hot Oil Heaters will become regulated Emissions Units in the Title V Operation permit as they meet the 40 CFR 60.41c definition of a steam generating unit in 40 CFR 60 Subpart Dc- Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.
    - Each Hot Oil Heater has a rated heat input capacity of 16 MMBtu/hr and shall fire natural gas and plant fuel gas.
        - Because each Hot Oil Heater is limited to firing natural gas and plant fuel gas only, each unit is subject to Fuel Recordkeeping (40 CFR 60.48c(g)(2)) and Reporting (40 CFR 60.48c(j)) requirements only.
        - In accordance with Rule 62-210.200(270), F.A.C., each Hot Oil Heater is not subject to a Unit-Specific Limitation or Requirement for construction permitting.
- It appears that the Three Regeneration Gas Heaters meet the exemption criteria of Rule 62-210.300(3)(a)34., F.A.C.

- Each Regeneration Gas Heater has a rated heat input capacity of 6.0 MMBtu/hr and shall fire natural gas and plant fuel gas,[10]
- The rate heat input capacity of each unit is less than 100 million Btu per hour,
- Each unit is not subject to the Acid Rain Program, or any other unit-specific limitation or requirement other than any such limitation or requirement that may apply pursuant to 40 C.F.R. Part 63, Subpart JJJJJJ, adopted and incorporated by reference at rule 62-204.800, F.A.C.
- Collectively, the total rated heat input capacity of all units claiming the exemption at the same facility are less than 250 million Btu per hour,
- The units are gas fired.
- The annual amount of fuel burned by each unit shall not exceed 150 million standard cubic feet of natural gas.
- The collective annual amount of fuel burned by all units claiming this exemption at the same facility shall not exceed 375 million standard cubic feet of natural gas.

Rule 62-210.300(3)(b)1., F.A.C., Generic Exemptions from Air Construction Permitting

- The applicant asserts that the three Flares (the Common Ground Flare with one wet pilot and one dry pilot, and the Cold Vent) meet this exemption criteria.
- The Department has determined that the three flares **do not** meet the exemption criteria of Rule 62-210.300(3)(b)1., F.A.C.
  - Although the flares (or the emissions activities venting to the flare) do not appear to be subject to an unit-specific limitation or requirement, the potential NO_x emissions determined by the facility exceed the 5.0 tons per year threshold defined within the rule.
  - Uncontrolled emissions of VOC and total HAPs from the gas stream are estimated by the facility to be 79.4 and 23.66 tons per year respectively. Without the flares in operation, the facility would be classified as a major source of HAP emissions. The operation of the flares are necessary to avoid such classification.

Rule 62-210.700, F.A.C. – Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP or Acid Rain program provision.

This rule applies to all air permitting decisions. Only the key provisions potentially affecting this project are listed.

- Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided (1) best practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration. Excess emissions that are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[10] The facility states the sources of the plant fuel gas to be: vapors from heavy hydrocarbon storage, the flash gas from the amine flash drums in the Acid Removal Units, Boil Off Gas from LNG storage, return vapors from marine and truck loading returns, and startup fuel gas. The Rule 62-210.300(3)(a)(34), F.A.C. exemption to natural gas. There is not a definition of natural gas in State Rule 62-210.200, F.A.C. The plant fuel gas appears to meet paragraph (3) of the 40 CFR 60 Subpart Dc definition of natural gas as the sources, based on information provided by the applicant in the confidential file, either by themselves or combined are composed of at least 70 percent methane by volume.

- Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest.
- In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

Rule 62-212.300, F.A.C. - General Preconstruction Review Requirements

This rule generally applies to the construction or modification of air pollutant emitting facilities in those parts of the state in which the state ambient air quality standards are being met.

Rule 62-212.400, F.A.C., PSD.

The facility has self-limited the annual hours of operation of the five power generators operating at 100% load to no more than 17,500 total available hours for all five power generators combined. This restricted annual hours of operation of these units avoids the facility being classified as a PSD Major Source or a HAPs major source.

Chapter 62-213, F.A.C.

Because the facility is a Title V source, the applicant shall be required to apply for and obtain an initial Title V operation permit in accordance with the applicable provisions of Chapter 62-213, subsequent to the construction authorized by the air construction permit, and demonstration of compliance with the conditions of the air construction permit.

Rule 62-296.320, F.A.C. – General Pollutant Emission Limitation Standards

- This rule prohibits the discharge of air pollutants which cause or contribute to an objectionable odor;
  - The applicant states LNG has no natural odor.
  - The facility will have a Mercaptan removal system to remove any odorants from the inlet gas in its Pre-Treatment, which will be addressed in its Spill, Prevention, Control and Countermeasure Plan and associated drainage discharge forms.
- This rule specifies a general visible emissions standard of 20 percent (%) opacity; and
- The rule prohibits emissions of unconfined PM provisions without taking reasonable precautions to prevent such emissions.

Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with Less than 250 MMBtu/hr Heat Input (N/A)

- This rule is not applicable to the three Regeneration Gas Heaters that meet the exemption criteria of Rule 62-210.300(3)34., F.A.C., and therefore are exempt from air construction permitting. Furthermore, all heaters operated do not meet the Rule 62-210.200(113), F.A.C. definition of a Fossil Fuel Steam Generator.

Rule 62-296.500, F.A.C. Reasonably Available Control Technology (RACT) – Volatile Organic Compounds (VOC) and Nitrogen Oxides (NOx) Emitting Facilities. (N/A)

- The specific emission limiting standards and other requirements of Rules 62-296.500 through 62-296.516, F.A.C., are potentially applicable to this project as the facility will be located in an area that is designated as an air quality maintenance area for the air pollutant ozone.
- Rules 62-296.508 and 62-296.516 are not applicable because the LNG in the LNG Storage Tank does not meet the definition of Petroleum Liquid in Rule 62-210.200(216), F.A.C.

- *(216) "Petroleum Liquids" – Petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery but does not mean No. 2 through No. 6 fuel oils, gas turbine fuel oils No. 2-GT through No. 4-GT, or diesel fuel oils No. 2-D and No. 4-D.*

- The proposed units at the facility do not meet the applicability of the source categories in Rules 62-296.501 through 62-296.516.
- The Reasonably Available Control Technology (RACT) - Requirements for Major VOC- and NOx-Emitting Facilities in Rule 62-296.507 are not applicable as the sources will not be located in Broward, Dade, and Palm Beach counties. As such, the facility does not meet the applicability of Rule 62-296.500(1)(b), F.A.C.

Rule 62-296.600, F.A.C. Reasonably Available Control Technology (RACT) – Lead. (N/A)

- These rules do not apply as the proposed project is not a new or existing lead processing operation.

Rule 62-296.700, F.A.C. Reasonably Available Control Technology (RACT) Particulate Matter (N/A)

- These rules are potentially applicable to this project as the proposed facility is located in the area of influence of a particulate matter air quality maintenance area.
- Rule 62-296.700(1)(a), F.A.C. states these rules apply to *existing* emissions units that emit particulate matter emissions.
- Rule 62-210.200(116), F.A.C. defines and existing emissions unit as follows:
  - *(116) "Existing Emissions Unit" – An emissions unit which was in existence, in operation, or under construction, or had received a permit to begin construction prior to January 18, 1972. However, "existing emissions unit" for the purposes of Rules 62-296.700 through 62-296.712, and 62-212.500, F.A.C., shall mean any emissions units which is not defined as a new emissions unit with respect to a specific rule or provision of any of those sections. For the purpose of Rules 62-296.500 through 62-296.512, F.A.C., existing emissions units are those emissions units which were constructed or for which a construction permit was issued prior to July 1, 1979. For the purposes of Rule 62-212.400, F.A.C., an existing emissions unit is an emissions unit which is not a new emissions unit as defined for the purposes of Rule 62-212.400, F.A.C.*
  - It is noted that specific rule or provisions of Rules 62-296.700 through 62-296.712 do not define new emissions units. As such, the proposed emissions units at this facility could therefore defined as existing emissions units.
- After consultation with the Division of Air Resource Management, it is determined that PM RACT in Rules 62-296.700 - 712, only applies to units that were existing or new prior to May 30, 1988. See attached memo.
- Since this unit will be a new source constructed after May 30, 1988, PM RACT is not applicable.

Chapter 62-297, F.A.C.

- This rule establishes general compliance test requirements as well as standards for persons engaged in visible emissions observations.

Local Jacksonville Code of Ordinances Applicability

- The facility will be subject to the City of Jacksonville Ordinance Code, Title X, Chapter 360 [Environmental Regulation], Chapter 362 [Air and Water Pollution], Chapter 376 [Odor Control], and JEPB Rule 1 [Final Rules with Respect to Organization, Procedure, and Practice].

- The facility will be subject to JEPB Rule 2, Parts I through V, and Parts IX through XIII.
  - Part IX – Ambient Air Quality Standards.
    - JEPB Rule 2.901 Ambient Air Quality Standard for Aggregate Reduced Sulfur (ARS). Jacksonville Environmental Protection Board (JEPB) has established ground level ambient air quality standards for ARMS compounds. These standards will apply to the waste acid gas stream from the amine treatment systems associated with the three liquefaction trains. This stream is vented to a common thermal oxidizer where the hydrogen sulfide in the waste acid gas stream will be oxidized to sulfur dioxide prior to being emitted to the atmosphere. These standards also apply to the Common Ground Flare and the Process Fugitive Piping Component Emissions. The limit is 15 parts per billion as a predicted maximum one-hour ground level concentration at the fence line for new construction (Board Rule 2.901D.). There is also a maximum ground level concentration standard at the fence line of 55 parts per billion averaged over any three consecutive minutes (Board Rule 2.901B.2.). The applicant conducted mathematical dispersion modeling, as required by Board Rule 2.901D, of the waste acid gas stream using the USEPA AERSCREEN model which the results demonstrate compliance 15 ppb standard.[11]
  - Part XIII- Air Pollution Nuisance Rules.
    - JEPB Rule 2.1301: General Standard for Volatile Organic Compounds. This standard states that persons shall use reasonable care to avoid discharging, leaking, spilling, seeping, pouring, or dumping organic compounds or organic solvents. This standard will apply to the LNG facility, including its tanks and pipes.
    - JEPB Rule 2.1302: Emissions from Ships and Locomotives. This rule applies to the operations of ships and locomotives at all places within the borders of Duval County, Florida. The Eagle Jacksonville LNG Facility will have vessels using the terminal to export the LNG, which will be subject to this rule. The rule limits visible emissions from ships to 20 percent opacity, except visible emissions as great as 40 percent opacity shall be permissible for no more than two minutes in an hour. Certain exemptions to the opacity standard may apply. This rule also requires certain documents to be kept on file.
    - JEPB Rule 2.1303: Air Pollution Nuisances. This rule prohibits the creation of public air pollution nuisances that would adversely affect human welfare or cause damage to property or unreasonably interfere with the enjoyment of life or property or conduct of business. This rule will apply to the facility's stationary sources and mobile sources, including but not limited to automobiles, trucks, and ships.

5.0. EMISSIONS CONTROLS AND OPERATING RESTRICTIONS

The proposed facility shall utilize the following pollution control equipment, measures, and techniques to control air pollutants:

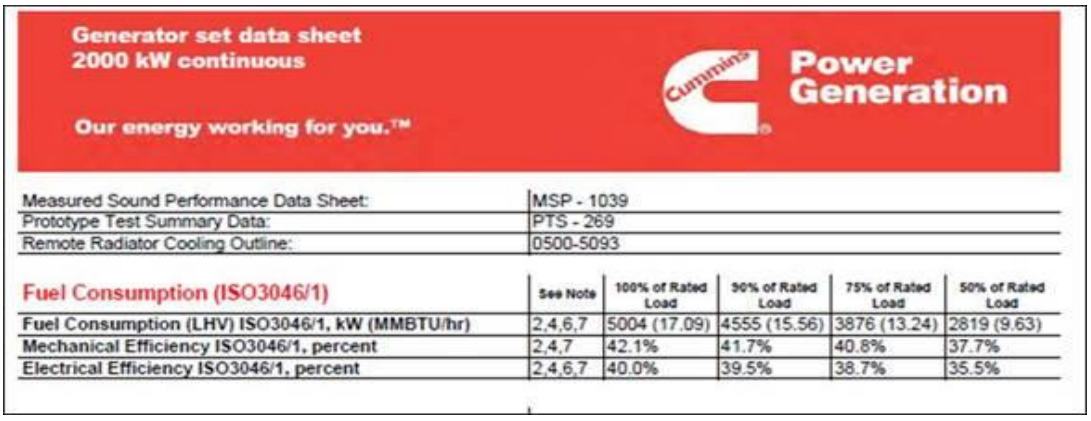
- Any vapors from the LNG storage tank (boil-off gas), displaced vapors from the LNG marine and truck loading operations shall be contained and compressed by the BOG compression system for use as fuel gas for the Hot Oil Heaters and Regeneration Gas Heaters within the LNG trains, the common Thermal Oxidizer, the Dry and Wet Flare pilots (Common Ground Flare), the Cold Vent pilot and the Power Generation Units;
- Nitrogen Oxides (NO_X) emissions will be minimized through the use of the lean burn technology.

[11] The applicant describes fugitive emissions using a point source description and nearest downwind distance of 243 meters. In an abundance of caution, the Division conducted dispersion modeling using USEPA AERMOD using Meteorology from the Jacksonville Craig ASOS station for 2014-2018, terrain processed using AERMAP, and the fugitive source modeled as an area source. Compliance is shown with the COJ ambient standard.

- The facility has self-limited the combined annual hours of operation of the five power generators operating at 100% load to no more 17,500 hours. These restricted annual hours of operation for these units is to avoid the facility being classified as a PSD Major Source due to CO emissions. This restriction is also to avoid the facility being classified as a major source of HAP due to formaldehyde emissions. The draft permit requires the facility to monitor the elapsed hours of operation of each power generator and the total elapsed hours of operation of all power generators combined using the non-resettable elapsed operating hour meters required by 40 CFR 60 Subpart JJJJ.
    - It is noted that should the facility request to relax this limitation on hours of operation sometime in the future, the facility will be required to evaluate facility potential emissions as though the facility project was never constructed. [Rule 62-212.400(12), F.A.C.]
- The facility will operate a common thermal oxidizer for the control of waste acid gas from each of the Acid Gas Removal Units Amine Treatment Systems for the three LNG trains. Pre-control, potential emissions of VOC, Benzene, and Hydrogen Sulfide in the waste acid gas are 60.17 tons, 7.19 tons, and 17.81 tons respectively on an annual basis. The facility has stated the destruction efficiency of the thermal oxidizer is 99.99 percent.

5.1. EMISSIONS TESTING

- The facility self-limited the combined annual hours of operation of the five power generators operating at 100% load to no more 17,500 hours. This was done to avoid the facility being classified as a major source of HAP due to formaldehyde emissions.
    - The facility estimated potential formaldehyde emissions to be 7.9 tons per year by multiplying the EPA AP-42 4SLB engine formaldehyde average tested EF of 0.0528 lb/MMBtu by the manufacturer cited NG LHV of 17.09 MMBtu/hour rating multiplied by the five engines run time cap of 17,500 hours per 12-month period.
    - The Department notes:
        - Formaldehyde PTE:
            - The 17.09 MMBtu/hr rating is the LHV of natural gas used during the test



Generator set data sheet
2000 kW continuous

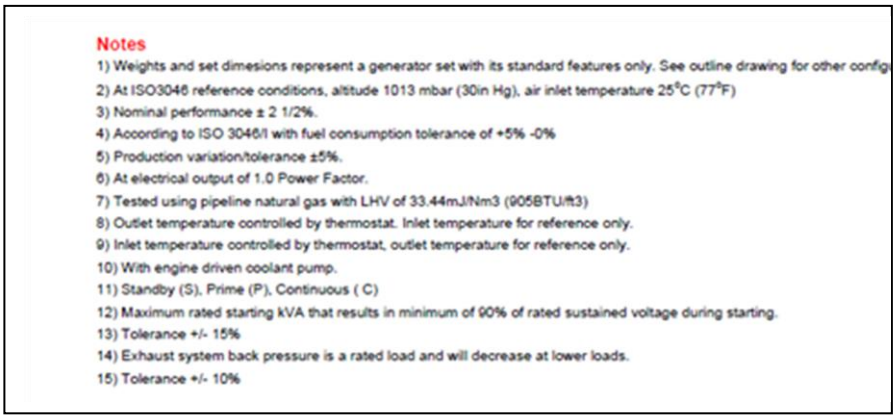
Our energy working for you.™

Power Generation

Measured Sound Performance Data Sheet:	MSP - 1039
Prototype Test Summary Data:	PTS - 269
Remote Radiator Cooling Outline:	0500-5093

Fuel Consumption (ISO3046/1)	See Note	100% of Rated Load	90% of Rated Load	75% of Rated Load	50% of Rated Load
Fuel Consumption (LHV) ISO3046/1, kW (MMBTU/hr)	2,4,6,7	5004 (17.09)	4555 (15.56)	3876 (13.24)	2819 (9.63)
Mechanical Efficiency ISO3046/1, percent	2,4,7	42.1%	41.7%	40.8%	37.7%
Electrical Efficiency ISO3046/1, percent	2,4,6,7	40.0%	39.5%	38.7%	35.5%

            - Note 7 of the manufacturer's specification sheet states the test was performed with pipeline natural gas with a LHV of 905 Btu/ft^3.



Notes
1) Weights and set dimesions represent a generator set with its standard features only. See outline drawing for other config
2) At ISO3046 reference conditions, altitude 1013 mbar (30in Hg), air inlet temperature 25°C (77°F)
3) Nominal performance ± 2 1/2%.
4) According to ISO 3046/I with fuel consumption tolerance of +5% -0%
5) Production variation/tolerance ±5%.
6) At electrical output of 1.0 Power Factor.
7) Tested using pipeline natural gas with LHV of 33.44mJ/Nm3 (905BTU/ft3)
8) Outlet temperature controlled by thermostat. Inlet temperature for reference only.
9) Inlet temperature controlled by thermostat, outlet temperature for reference only.
10) With engine driven coolant pump.
11) Standby (S), Prime (P), Continuous (C)
12) Maximum rated starting kVA that results in minimum of 90% of rated sustained voltage during starting.
13) Tolerance +/- 15%
14) Exhaust system back pressure is a rated load and will decrease at lower loads.
15) Tolerance +/- 10%

- From the Confidential submittal, the GHV of the treated LNG (the understood feed to the power generators) in the worst-case scenario is used to determine a ratio of the LNG GHV to the NG LHV. This results in a ratio of 1.152.

- This results in corrected potential formaldehyde emissions of 9.10 tons/year (7.9 x 1.152= 9.105 TPY). Refer to **Table TABLE 4**.

- Using the corrected potential emissions results in facility wide formaldehyde emissions of 9.14 tons per year. Refer to **Table TABLE 5**.

▪ Reasonable Assurance, Rule 62-4.070(3), F.A.C.- The Department may issue any permit with specific conditions necessary to provide reasonable assurance that Department rules can be met.:

- The facility will be classified as a Major Source or Title V Source (due to HAP emissions) if the facility contains an emissions unit or any group of emissions units that emits or has the potential to emit in the aggregate, 10 tons per year or more of any one HAP. For the proposed power generators and the pollutant formaldehyde, this would result in an emissions factor of 0.0579 lb/MMBtu

$$\text{EPA AP-42 EF } \frac{0.0528 \text{ lb/MMBtu}}{9.10 \text{ TPY}} = \frac{X \text{ lb/ MMBtu}}{10 \text{ TPY}}$$

- The facility proposes to use power generator sets manufactured by Cummins, Inc., which is not one of the manufacturers of the engines in the EPA AP-42 test data set. Refer to Appendix A, Section 3.2 Natural Gas-fired Reciprocating Engines Source Test Reports Information.

- Based on the information provided in the EPA AP-42 Section 3.2 Natural Gas-Fired Reciprocating Engines Background Document, the test data set is normal distribution (average value of 0.0528 lb/MMBtu and relative standard deviation of 31.7%).

Table 3.4-2. UNCONTROLLED EMISSION FACTORS FOR 4-STROKE LEAN-BURN ENGINES
(Continued)

Pollutant	Number of Tests	Emission Factor (lb/MMBtu)	Emission Factor (lb/MMscf)	Relative Standard Deviation (%)	Test IDs
Formaldehyde					
FTIR	32	5.28 E-02	5.39 E+01	31.7%	29.33x-29.38x, 29.41x-29.52x, CSU tests: 2.1.1-2.16.1.

- Using a normal distribution, there is a 38% statistical possibility that the power generators could emit formaldehyde with an emission factor of ≥ 0.0579 lb/MMBtu, i.e. a 38% statistical possibility that potential formaldehyde emissions could be 10 tons per year or greater, thus classifying the facility as a major source of HAP emissions.

- The Department therefore will require that each power generator engine be initially tested for formaldehyde emissions in the draft construction permit. These tests will provide reasonable assurance whether the facility operations as proposed in the application represent a HAP area source or a HAP major source.

    - Although the facility proposes to install five, like-kind engines, a test is being required at each engine because 1) as supported by EPA AP-42 findings[12], like kind engines may result in substantially different pollutant tested emissions and thus emission factors, and 2) the operating hour limit of 17,500 hours per year can be fulfilled by operating just two engines over the course of a 12-month period (2 x 8,760 hours = 17,520 hours). Therefore, it is necessary to determine the worst-case formaldehyde tested emission factors of the five engines to define the facility as a HAP area source or HAP major source.

- The Department will require subsequent formaldehyde testing in the draft construction permit for:

    - Non-certified engines should compliance with the CO emissions standard not be demonstrated by the required CO performance testing. The formaldehyde test shall be conducted within 60 days of the CO performance test.

    - Certified engines should the formaldehyde test results equal or exceed the emission factor used in the project construction permit application

[12] AP-42 3.2 Natural Gas-fired Reciprocating Engines, Section 3.2.3 Emissions discussion, *"It should be emphasized that the actual emissions may vary considerably from the published emission factors due to variations in the engine operating conditions. This variation is due to engines operating at different conditions, including air-to-fuel ratio, ignition timing, torque, speed, ambient temperature, humidity, and other factors. It is not unusual to test emissions from two identical engines in the same plant, operated by the same personnel, using the same fuel, and have the test results show significantly different emissions. This variability in the test data is evidenced in the high relative standard deviation reported in the data set."*

(5.28E-02 lb/MMBtu, AP-42 Table 3.2-2 for 4SLB engines) and the requirements of 40 CFR 60.4243(a)(2)(iii)[13] are triggered.

- The proposed facility shall comply with the requirements of 40 CFR 60 Subpart JJJJ (see above discussion).
    - The facility has stated that the installed power generators will be certified combustion engines. In accordance with the 40 CFR 60 Subpart JJJJ standards, if the certified stationary SI internal combustion engine and control device are not operated and maintained according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine, and compliance shall be demonstrated by the Permittee keeping a maintenance plan, records of conducted maintenance, to the extent practicable operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions, initial performance tests for Nitrogen Oxides, Carbon Monoxide, VOC emissions within 1 year of engine startup, and subsequent performance testing every 8,760 hours or 3 years, whichever comes first.
    - If non-certified engines are purchased, the facility is required to demonstrate compliance with the emission standards according to the test methods specified in 40 CFR 60, Section 60.4243(b)(2)(ii). The facility is required to keep a maintenance plan and records of maintenance conducted, and must to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practices for minimizing emissions. The facility must also conduct an initial performance test to demonstrate compliance with the NO_x, CO, and VOC emission standards. Subsequent performance testing is required every 8,760 hours or 3 years, whichever time period occurs first. The facility is also required to comply with the notification, reporting, and recordkeeping requirements specified within the Subpart.
- The proposed facility shall comply with the requirements of 40 CFR 60 Subpart IIII (see above discussion).
    - The facility has stated that the installed emergency diesel generator will be a certified combustion engine. In accordance with the 40 CFR 60 Subpart IIII standards, if the certification is lost, the engine will be considered a non-certified engine, and compliance shall be demonstrated by the Permittee keeping a maintenance plan, records of conducted maintenance, to the extent practicable operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions, initial performance tests for Non Methane Hydrocarbons and Nitrogen Oxides, Carbon Monoxide, and Particulate Matter emissions within 1 year of engine startup or within 1 year after the engine and control device is no longer installed, configured, operated and maintained in accordance with the manufacturer’s emission-related written instructions, or within 1 year after the emission-related settings are changed in a way that is not permitted by the manufacture.

[13] If the certified stationary SI internal combustion engine and control device is not operated and maintained according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine, and compliance must be demonstrated according to (iii) for a stationary SI internal combustion engine greater than 500 HP, a maintenance plan and records of conducted maintenance and must be kept, and to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, an initial performance test must be conducted within 1 year of engine startup and subsequent performance testing conducted every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

  - The facility has stated that the installed emergency diesel Fire Pump engine will be a certified combustion engine. In accordance with the 40 CFR 60 Subpart IIII standards, if the certification is lost, the engine will be considered a non-certified engine, and compliance shall be demonstrated by the Permittee keeping a maintenance plan, records of conducted maintenance, to the extent practicable operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions, initial performance tests for Non Methane Hydrocarbons and Nitrogen Oxides, Carbon Monoxide, and Particulate Matter emissions within 1 year of engine startup or within 1 year after the engine and control device is no longer installed, configured, operated and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the emission-related settings are changed in a way that is not permitted by the manufacture.

- The draft permit will require an initial visible emissions Method 9 test to be conducted to demonstrate compliance with the visible emissions standard for the common control device (thermal oxidizer) for the Acid Gas Removal Units Amine Treatment Systems for each of the three LNG trains. The draft permit will also require the initial verification of the destruction efficiency of the thermal oxidizer through inlet and outlet Method 25A testing to provide reasonable assurance in accordance with Rule 62-4.070(3), F.A.C., that the thermal oxidizer is operating properly. Subsequent Visible Emissions compliance testing shall be required during each calendar year accordance with Rule 62-297.310(8)(a)1. and 3, F.A.C. Subsequent destruction efficiency verification testing shall be required once every five years during the calendar year prior to renewal of the operation permit.
- The draft permit will require an initial visible emissions Method 9 test to be conducted to demonstrate compliance with the visible emissions standard for both the ground flare and the cold vent. Subsequent Visible Emissions compliance testing shall be required during each calendar year accordance with Rule 62-297.310(8)(a)1. and 3, F.A.C.

6.0 PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. No air quality modeling analysis is required because the project does not result in a significant increase in emissions. Rita Felton-Smith is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at the Florida Department of Environmental Protection, Northeast District Office, 8800 Baymeadows Way West, Suite 100, Jacksonville, FL 32256, Phone: 904/256-1700.

INTEROFFICE MEMORANDUM

Date: 14-Dec-1999 03:52pm
From: Larry George TAL 850/921-9555
GEORGE_L@a1.epic1.dep.state.fl.us
Dept:
Tel No:

Subject: Re: PM RACT

This is one of several rules that is perfectly unclear as to the meaning of "existing unit." In fact, the rule provides no clue as to what it really means. Also, it turns out that this rule applies to certain "new units" that were constructed during a specific time frame, but you'd never be able to figure that out from the rule language. Here's how it goes: The PM RACT rule was originally intended to apply to those units that were in existence (permitted) at the time it was first adopted (early 1981). There also used to be language in the rule that made it applicable to "new units'" i.e., those that came along after the initial rule adoption. The "new unit" language was deleted effective May 30, 1988, when we revised our rules to reflect the revocation of the TSP standard and adoption by EPA of the PM-10 standard. The reasoning was that, from a PM-10 perspective, central Jacksonville and central Tampa were no different than anywhere else in the state; therefore, new PM-10 sources wishing to locate in those areas should not be treated differently than anywhere else. We did, however, decide to maintain the PM gains that had been made in the area by continuing the PM RACT rules in effect for the units that had been made to comply with it; i.e., all "existing units" as above and all "new units" permitted before May 30, 1988.