

RESPONSE TO COMMENTS  
DRAFT PERMIT

This is our response to the comments received on the subject draft New Source Review (NSR)/Title V permit in accordance with our regulations.

Permit No.: R6DPA-GM2

Applicant: El Paso Energy Bridge, LLC

Facility Name/Location: El Paso Energy Bridge Project, Gulf of Mexico  
Latitude: 28° 05' 42" N  
Longitude: 93° 03' 35" W  
116 miles off the coast of Louisiana in the Gulf of Mexico

Draft Permit Public Notice Date: 11/30/03

Prepared by: Stephanie D. Kordzi

**Permit**

Issue No. 1.

Section I.B., Table 1: The applicant commented that the reference to dual-fuel fired marine boilers (U-00001 and U-00002) is confusing since the permit authorizes only natural gas. The applicant requests the permit be revised accordingly.

Response No. 1.

The EPA agrees. The permit has been revised to include the corrections.

Issue No. 2.

Section I.B., Table 1: The applicant commented that Unit U-00005, a shipboard incinerator, is not associated with the regasification process and is a normal part of ship operation. It should not be included in emission units associated with the regasification process and should be deleted from Table 1 and Table 2, on page 11 of the permit.

Response No. 2.

The EPA agrees. It has been removed from Tables 1 and 2.

Issue No. 3.

The applicant requested a permit shield for provisions in the permit.

Response No. 3.

The permit shield conditions are located in Section III.A. of the permit and have been revised to reflect Emission Unit U-00003 (see Issue No. 8).

Issue No. 4.

Section II.A., Table 3: The applicant commented that the emission rates should indicate the basis of operation of each unit type. The applicant requests a column showing hours of operation allowed for each unit.

Response No. 4.

The EPA has revised the permit to incorporate the hours of operation, as reflected in the permit application submitted in September 2003. See Footnote 1 which states that the annual emission rates are based on 8,760 hours per year of operation.

Issue No. 5.

Section II.B: The applicant commented that record retention is referenced from the point of engine replacement. The applicant believes compliance records should be maintained for a period of five years without reference to engine replacement.

Response No. 5.

The EPA agrees. The final sentence has been revised to the following: "These records will be maintained for a period of at least five (5) years."

Issue No. 6.

Section II.C.: The applicant commented that record keeping and reporting requirements under 40 CFR Part 60 should be detailed, including the need to provide notification of start-up, testing, etc.

Response No. 6.

The following section has been added to Section II.C.(b) "The permittee is subject to the requirements of 40 CFR part 60, Subpart A, General Provisions, which includes specific monitoring, notification, recordkeeping, and reporting requirements." In addition, general record keeping requirements are included in Section III.D. and general reporting requirements are included in Section III.E.

Issue No. 7.

Section II.C.(a)(iii): The applicant commented that the boilers referenced do not meet the criteria in paragraphs (j)(2) and (3). The boilers are high release rate units subject to a nitrogen oxide emission limit of 0.2 lb/million/Btu.

Response No. 7.

The permit has been revised to incorporate the applicable NSPS conditions for NOx.

Issue No. 8.

Section II.C.: The applicant requested a paragraph be added stating,

“The permittee is not subject to the requirements of 40 CFR Part 60, Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. According to 40 CFR part 60.41c, Subpart Dc, Steam Generating Units are defined as a device that combusts any fuel to produce steam or heat water or any other heat transfer medium. This term does not include process heaters. Emission Unit U-00003 is primarily used for heating material (process natural gas), and does not produce steam or heat water or a heat transfer medium. U-00003 is a Process Heater and as such, not subject to NSPS Subpart Dc requirements.”

El Paso also requested a Permit Shield (See Issue No. 3 above) for the provisions in the permit because U-00003, the natural gas-fired heater located on the platform would not be subject to Subpart Dc for two primary reasons: 1) the unit does not generate steam to heat the natural gas prior to entering the downstream distribution systems; and 2) because its primary use is to heat natural gas prior to entering the downstream pipeline system. Therefore, U-00003 can be called a process heater and therefore not subject to Subpart Dc.

Response No. 8.

The EPA agrees with the request. Section II.C.(d) has been added and includes the requested provision.

Issue No. 9.

Section II.D: The applicant requests the permit be revised to clarify the section is applicable only to the metering platform of the Port and not the air conditioning equipment located on the vessel which is not part of the regasification process. Therefore, the applicant requested the first sentence of the section be amended as follows:

“The following requirements apply to any air conditioning appliances at the *metering platform associated with the regasification operations of the facility* (‘appliance’ as

defined in 40 CFR 82.152) that contain Class I or Class II refrigerants:”

El Paso also requested portions of this section clearly inapplicable to the regulated platform, e.g., servicing of motor vehicles, be eliminated.

Response No. 9.

The EPA agrees with the comment based on its earlier determination of the applicable units subject to permit requirements. The final permit has been revised as requested.

Issue No. 10.

Section II.E: The applicant does not agree with EPA’s conclusion that restricting the boilers exclusively to the combustion of natural gas is appropriate for BACT. The applicant does not believe justification for this determination was provided in the Statement of Basis.

Response No. 10.

In addition to requiring appropriate BACT requirements, the permittee’s emissions were evaluated against the NAAQS standards. Modeling analyses of NO<sub>x</sub>, PM, SO<sub>2</sub>, VOC, and CO were conducted and demonstrate that violations of the applicable NAAQS or PSD increments will not occur so long as only natural gas is used to fire the boilers.

Issue No. 11.

Section III, Bullet item (a), first sentence: The applicant requested the sentence clarify this section of the Permit applies only to emissions related to regasification activities. The reference to Table 1 of Section I.B should be listed as Table 3 of Section II.A.

Response No. 11.

The EPA agrees. The final permit has been revised.

Issue No. 12.

Section III, Bullet item (b): The applicant requested the natural gas usage units of lb/hr be expressed as cubic feet per hour with an accompanying value of natural gas heat content in Btu per cubic foot – 220,600 scf/hr for U-00001 and U-00002, assuming 1,020 Btu/scf for natural gas fuel. Also, the applicant requested the addition “per hour for U-00003, be revised to 21,570 scf/hr.

Response No. 12.

The EPA agrees. The permit has been revised for consistency.

Issue No. 13.

Section III, Bullet item (c): The applicant requested the reference to unit firing capacity, “MM BTU”, is not consistent with what is provided in the listing of Abbreviations and Acronyms, which lists the term as “mmBtu”. Additionally, the actual heat inputs listed equal the unit rated heat inputs provided in Section I.B, Table 1. As such, the need for this condition is questioned, since actual heat input cannot exceed rated capacity.

Response No. 13.

The EPA agrees. The typographical error was corrected to mmBtu. Regarding the condition for unit rated heat inputs, the permit condition Section III(c) ensures and provides further clarification to the permittee that heat input shall not be exceeded.

Issue No. 14.

Section III.B: El Paso requested relief from the NSPS requirements for initial 30-day performance monitoring and subsequent compliance testing required by 40 CFR §§ 60.46b (e)(1) and 60.46b(e)(4). Instead of the 30-day average basis required by 40 CFR §§ 60.44b(i), 60.46b (e)(1), and 60.46b(e)(4), El Paso requests use of a 24-hr basis for initial performance testing and subsequent compliance testing, since the vessel is not expected to be at the location for more than a week at a time. Each of the proposed 24-hr tests will include a minimum of three separate one-hour runs using applicable test methods. El Paso justifies the request on the grounds that the vessel will be an “infrequently operated source” under 40 CFR § 60.13(i)(2).

Response No. 14.

EPA partially approved the request with several modifications. The EPA believes the operating scenario presented by El Paso Energy Bridge is the first of its kind in the world and this type of industrial operation was not considered when the NSPS regulatory requirements were developed. It takes only 5-7 days for the cargo to be regasified and discharged from the vessel, and in fact the vessels are incapable of carrying enough LNG to permit continuous operation at the port for 30 days. Accordingly, EPA has determined that it is impossible for the facility to demonstrate compliance by calculating NO<sub>x</sub> monitoring results on a successive 30-day rolling average basis.

Based on the operating scenario presented in the permit application, it is reasonable to approve El Paso’s request for alternative monitoring requirements, under 40 CFR § 60.13(i)(2) (infrequent operation) as well as under the Administrator’s general authority to approve alternative monitoring procedures and requirements, at 40 CFR § 60.13(i). Additionally, according to NSPS Part 60, Subpart A at § 60.8(c), performance (compliance) tests have to be conducted based on representative performance of the affected facility (each of El Paso Energy Bridge’s boilers). The relatively short operating time of the source reduces the feasibility of using a CEMS for the performance test. Therefore, El Paso Energy Bridge has been granted

approval for conducting a revised test procedure. The permit will allow the permittee to calculate emissions using a reduced monitoring time from “30 successive days” to “30 cumulative days,” in accordance with the actual representative conditions of operating each boiler. The performance testing and annual stack tests referenced must be conducted using a 24-hour basis with a minimum of 3 separate one hour runs using the applicable test methods for each day and used to calculate the 30 day cumulative daily emissions that are representative of the emissions from the facility.

Issue No. 15.

Section III.B, Monitoring and Testing Requirements: The applicant requested the Table 4 title be expanded to read “Federal Monitoring Requirements Under 40 CFR Part 60”.

Response No. 15.

The request has been incorporated into the final permit.

Issue No. 16.

Section III.B, Monitoring and Testing Requirements, Table 4: The reference to “PM10” in the title block should be changed to “OPACITY”, since the source cannot directly monitor PM10.

Response No. 16.

The EPA disagrees. The permit has been revised however for clarification. The source will be required to perform an initial stack test on Units U-00001, U-00002, U-00003, and U-00004 (See Section III.B.(v)) and demonstrate compliance with PM10 once per year on Unit U-00004 (See Section III.B.(vi)).

Issue No. 17.

Section III.B, Table 4: The applicant requested the permit provide greater detail for the monitoring requirements by adding a note to Table 4 – “U-00001 and U-00002 are required to comply with NOx monitoring requirements under 40 CFR 60.48b(g)(1) or (g)(2). There are no applicable standards, testing, or monitoring requirements for these units under NSPS Subpart Db since they will burn only natural gas fuel.

Response No. 17.

Table 4 has been revised to include the clarification requested by the applicant.

Issue No. 18.

El Paso requested approval of alternative monitoring for sources infrequently operated pursuant to 40 CFR 60.13(i)(2). El Paso proposed conducting performance testing by utilizing the guidance in EPA's Conditional Test Method 034, ICAC Test Method for Periodic Monitoring, which allows the use of certified portable test equipment instead of those methods identified in New Source Performance Standards, 40 CFR 60, Appendix A. El Paso believes this Conditional Test Method will address the physical challenges of performing the tests through the use of portable test equipment and still meet the requirements within the permit. It would also provide El Paso the ability to test the units while the vessel is moored to the buoy in heavy seas when transporting test equipment from shore to the vessel would not be feasible or safe in many weather conditions.

Response No. 18.

Although El Paso requested approval to use Method CTM-034, the EPA OAQPS office determined ASTM D6522-00 Standard Test Method for Determination of Nitrogen Oxides and Carbon Monoxide in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers is more appropriate.

In addition, EPA will require the permittee to demonstrate compliance with the VOC emission limits of this permit by calculating VOCs using fuel consumption and appropriate AP-42 emission factors found in Table 1.4-2 (5.5 lbs/10<sup>6</sup> scf) of AP-42, Fifth Edition, Volume 1, Chapter 1 on Emission Units U-00001, U-00002, and U-00003.

Issue No. 19.

Section III.C, Performance Testing Requirements [40CFR 60.8], Page 19, Section III.C: The applicant stated 40 CFR Part 60.7 has specific notification requirements for opacity testing. These need to be cited. El Paso suggests adding a paragraph under Section III for Notification requirements.

Response No. 19.

Section III.C.(f) has been revised to add the following:

- (i) Notification of the date construction of an affected facility is commenced no later than 30 days after such date.
- (ii) Notification of the actual date of initial startup of an affected facility, postmarked within 15 days after such date.
- (iii) Notification of any physical or operational change to the facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted. This notice shall be postmarked 60 days or as soon as practicable before the change is commenced.

- (iv) Notification of the date upon which demonstration of the continuous monitoring system performance commences postmarked not less than 30 days prior to such date.
- (v) Notification of the anticipated date for conducting the opacity observations. The notification shall be postmarked not less than 30 days prior to such date.

Issue No. 20.

Section III.G – Facility Location Requirements: The applicant states the permit requires El Paso to establish and maintain a 500 meter (radial distance) exclusionary zone around the mooring buoy. El Paso is to maintain a patrol program to “locate, identify and intercept the general public by radio, physical contact or other reasonable measures to inform the public that they are entering an exclusionary zone where ambient air standards may not be maintained and conditions may be hazardous to non-authorized personnel”. The applicant indicated the Environmental Assessment (November 2003) (“EA”) published by the U.S. Coast Guard for the referenced project identifies three navigational exclusionary zones that will be established as part of the Port. The Safety Zone identified in the document extends 500 meters from the mooring buoy and will be designated as a U.S. Coast Guard requirement to limit unauthorized access to the buoy location. El Paso believes the Safety Zone to be established by the U.S. Coast Guard adequately meets the intent of EPA’s Exclusionary Zone, and requests this requirement be eliminated from the permit. Furthermore, a requirement in the EPA permit that the permittee establish an “exclusionary zone” around the facility may result in inconsistencies and conflict with actions of the U.S. Coast Guard. Accordingly, El Paso requests Section III.G. be deleted from the final permit. Alternatively, El Paso requests III.G. be revised to require the permittee comply with any requirements established by the U.S. Coast Guard for a Safety Zone around the facility.

The Coast Guard designated a safety zone around the deep water port. The Secretary’s Decision on the Deepwater Port License Application of El Paso Energy Bridge Gulf of Mexico, L.L.C., issued by the Department of Transportation on December 31, 2003, (referred to as the Record of Decision or “ROD”), stated in footnote 47 that “Section 10(d) of the Act [the Deepwater Port Act] requires the designation of a safety zone around and including the deepwater port to insure navigational and environmental safety.” The ROD also states at p. 16 that the applicant has requested a safety zone and the USCG has determined it is reasonable to establish a 500-meter safety zone. El Paso requests an “exclusionary zone” be deleted, because it is duplicative of requirements of the U.S. Coast Guard and may well result in inconsistencies and conflicts with Coast Guard requirements.

Response No. 20.

The EPA agrees to revise the language in the permit to the following:

“El Paso Energy Bridge must maintain a 500 meter (radial distance) exclusionary zone around the mooring buoy and must control the boundary of this zone consistent with the requirements established by the U.S. Coast Guard for a Safety Zone around the facility.”

Issue No. 21.

Section IV. Administrative Requirements, IV.A Annual Fee Payment, Bullet item (f): The applicant requested the definition of “actual emissions” be clarified to indicate it includes all metering platform emissions but only vessel emissions to the extent they are attributable to regasification activities.

Response No. 21.

The EPA agrees. The definition has been clarified in the final permit.

**Other Changes to the Final Permit**

Change No. 1.

For clarification, the Opacity requirement was placed in Table 3 (this limit was already included in Section III.F. of the permit).

Change No. 2.

Section III.B.(b)(vi)(A) - In addition to allowing Alternative Method ASTM D6522-00 Standard Test Method (see Response No. 18), the EPA clarified that the permittee should use the following methods for PM10 compliance as found Part 60, Appendix A.

- PM10 by Method 201 of 40 CFR Part 51, Appendix M -- Determination of PM10 emissions using exhaust gas recycle procedure (measures total noncondensable PM10);
- PM10 by Method 201A of 40 CFR Part 51, Appendix M -- Determination of PM10 emissions using constant sampling rate procedure (measures total noncondensable PM10);
- PM10 by Method 202 of 40 CFR Part 52, Appendix M -- Determination of Condensable Particulate Emissions from Stationary Sources (measures total condensable PM10).

Change No. 3.

Section III.B.(b)(v) - The EPA has determined the facility must demonstrate compliance

with PM10 by performing an initial stack test on Emission Units GEN-001, GEN-002, GEN-003, GEN-004, and GEN-005 using method and procedures identified in Change No. 2 above for PM10.

Change No. 4.

Section III.B.(b)(iv) - The EPA has determined the facility must conduct a compliance test once per year for opacity, but not PM10, for additional units, GEN-001, GEN-002, GEN-003, and FLR-001.

Change No. 5.

Section III.E.(c) & IV.N.(e) - The EPA has determined, for inspection and compliance purposes, that the permittee will be required to provide a schedule to the EPA containing dates/times when the vessels carrying LNG will be docking at the terminal to offload the LNG. This information shall be included with the semi-annual report the permittee submits to the EPA reporting any required monitoring under this permit which is to be submitted every six months following the anniversary of permit issuance. Any change to the schedule submitted with the semi-annual report must be provided to the EPA Regional office no later than 30 days before the earlier of the scheduled or actual date of arrival at the terminal.

Change No. 6.

Section IV.S(a)(i) - In accordance with Louisiana requirements regarding construction and start up requirements, the following provision was added to the final permit. Language was also struck from the final permit as noted for clarification.

~~“Within 180 days from December 1, 2005, the permittee will begin construction activities. This permit shall become invalid, for the sources not constructed, if:~~

- (A) Construction is not commenced, or binding agreements or contractual obligations to undertake a program of construction of the project are not entered into, within two (2) years after issuance of this permit, or;
- (B) If construction is discontinued for a period of two (2) years or more.

The EPA may extend this time period upon a satisfactory showing that an extension is justified.

This provision does not apply to the time period between construction of the approved phases of a phased construction project. However, each phase must commence construction within two (2) years of its projected and approved commencement.”

Change No. 7.

Section III.F.( c), (d), & (e) - In order to ensure compliance with Louisiana requirements regarding stationary tanks, the following provisions were added to the final permit.

- “(c) Chapter 21, Section 2103.A. - No person shall place, store or hold in any stationary tank, reservoir or other container of more than 250 gallons (950 liters) and up to 40,000 gallons (151,400 liters) nominal capacity any volatile organic compound, having a true vapor pressure of 1.5 psia or greater at storage conditions, unless such tank, reservoir or other container is designed and equipped with a submerged fill pipe or a vapor loss control system or is a pressure tank capable of maintaining working pressures sufficient at all times under normal operating conditions to prevent vapor or gas loss to the atmosphere.
- (d) Chapter 21, Section 2103.H. - True vapor pressure shall be determined by ASTM Test Method D323-82 for the measurement of Reid vapor pressure, adjusted for actual storage temperature in accordance with API Publication 2517, Third Edition, 1989.
- (e) Chapter 21, Section 2103.I.3. thru 5. - Monitoring/Record keeping/Reporting. The owner/operator of any storage facility shall maintain records to verify compliance with or exemption from LAC 33:III.2103. The records shall be maintained for at least two years and will include, but not be limited to, the following:
  - (i) The date and reason for any maintenance and repair of the applicable control devices and the estimated quantity and duration of volatile organic compound emissions during such activities.
  - (ii) The results of any testing conducted in accordance with the provisions specified in LAC 33:III.2103.H.
  - (iii) Records of the type(s) of VOC stored and the average monthly true vapor pressure of the stored liquid for any storage vessel with an external floating roof that is exempt from the requirements for a secondary seal and is used to store VOCs with a true vapor pressure greater than 1.0 psia.”

Change No. 8.

The permit has been revised to clarify that all performance testing, compliance monitoring, recordkeeping, and reporting requirements apply to each vessel involved in the regasification operations.

