UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

August 29, 2016

Mr. Roddy Bachman
United States Coast Guard
Deepwater Ports Standards Division
Room 1210
2100 Second Street, SW
Washington, DC 20593

Ms. Yvette Fields
Maritime Administration
Office of Deepwater Ports and Offshore Activities
1200 New Jersey Avenue SE, W23-323 (MAR-530)
Washington, DC 20590

Dear Mr. Bachman and Ms. Fields:

In accordance with our responsibilities under Section 309 of the Clean Air Act (CAA), the National Environmental Policy Act (NEPA), and the Council on Environmental Quality (CEQ) regulations for implementing NEPA, the U.S. Environmental Protection Agency (EPA) Region 6 office in Dallas, Texas, has completed its review of the Maritime Administration (MARAD) and U.S. Coast Guard (USCG) Draft Environmental Impact Statement (DEIS) for the Delfin Liquefied Natural Gas (LNG) Deepwater Port License Project (Delfin LNG). The purpose of the Delfin LNG project is to own, construct, and operate a deepwater port for the liquefaction and export of LNG in Federal waters off the coast of Cameron Parish, Louisiana.

When a Draft EIS does not identify a preferred alternative, the EPA reviews and rates each alternative. This proved difficult for the Delfin LNG project because, other than the proposed project, the alternatives discussed in the EIS were not discrete alternatives but potential combinations of activities that could result in dozens of alternatives. Since most of the impacts from the various potential alternatives are similar, EPA rates the Draft EIS as "Environmental Concerns – Insufficient Information" (EC-2). The EPA's Rating System Criteria can be found at http:/www.epa.gov/compliance/nepa/comments/ratings.html. EPA's review identified a number of potential adverse impacts to protected species. In addition, we request additional information regarding environmental justice communities, noise, indirect effects, greenhouse gas emissions, and protected species to strengthen the document. EPA recommends that these issues be addressed in the Final EIS. We have enclosed detailed comments which clarify our concerns.

EPA appreciates the opportunity to review the Draft EIS. Please send our office one copy of the Final EIS when it is electronically filed with the Office of Federal Activities. If you have any questions or concerns, I can be reached at 214-665-8565, or contact Keith Hayden, of my staff, at hayden.keith@epa.gov or 214-665-2133.

Sincerely,

Robert Houston
Chief, Special Projects
Section

Enclosures

DETAILED COMMENTS ON THE
U.S. COAST GUARD AND MARITIME ADMINISTRATION
DRAFT ENVIRONMENTAL IMPACT STATEMENT
FOR THE DELFIN LNG DEEPWATER PORT LICENSE PROJECT

BACKGROUND: Delfin LNG is proposing to construct, own, operate and eventually decommission a deepwater port in the Gulf of Mexico to liquefy domestically sourced natural gas for export. The proposed Delfin LNG project would be located in Federal waters within the Outer Continental Shelf (OCS) West Cameron Area, West Addition Protraction Area (Gulf of Mexico) approximately 37.4 to 40.8 nautical miles off the coast of Cameron Parish, Louisiana. The Delfin LNG deepwater port would consist of four semi-permanently moored Floating Liquefied Natural Gas Vessels (FLNGVs), two existing offshore natural gas pipelines, and four new 30-inch diameter pipeline laterals. In addition, a 700-foot 42-inch diameter new pipeline would be constructed to bypass a platform at WC lease block 167. The LNG would be stored onboard the FLNGV's and transferred via ship-to-ship transfer to properly certified LNG tankers. Each of the FLNGVs would be semi-permanently moored to four new tower yoke mooring systems (TYMS). The onshore components of the Delfin LNG deepwater port will consist of constructing and operating a new natural gas compressor station, gas supply header and a metering station at an existing gas facility.

ALTERNATIVES

Alternatives Analysis; page 2-30:

Table 2.3-1 has a list of alternatives and whether they were considered in detail or dismissed from further consideration. The individual alternatives are not discrete, as is typical in most Environmental Impact Statements (EIS), but are composed of different pipeline routes, mooring systems, port designs, anchoring methods, cooling media, and onshore facility locations. Other than the proposed project, none of these different routes, systems, etc. are logically packaged together into discrete alternatives. Also, the compatibility of each of the alternatives systems, routes, or locations is not discussed. For instance, some pipeline routes may only be feasible with specific onshore facility locations, or certain mooring systems may only work with a one type of anchoring method. This makes analyzing the alternatives difficult.

Recommendation: EPA recommends USCG and MARAD analyze the various components of all the alternatives and package them into logical, discrete alternatives.

Alternatives Analysis; page 2-50:

Section 2.4 of the Draft EIS describes the USCG and MARAD rationale for not selecting a preferred alternative at this time. The Draft EIS states "the Secretary will defer identification of the agency's preferred alternative until a decision is made to approve or deny a deepwater port License. If the License is approved, the Secretary will indicate the agency's preferred alternative

in its Record of Decision issued under the DWPA." Although not typical, an agency does not have to select a preferred alternative in the Draft EIS. However, an agency cannot wait until the record of decision (ROD) to identify the preferred alternative unless another law prohibits the expression of a preferred alternative. If there is a law governing the decision to not select a preferred alternative in this instance, it is not mentioned in the Draft EIS. Furthermore, not selecting a preferred alternative would deprive the public the opportunity to comment on the preferred alternative.

Recommendation: EPA recommends selecting a preferred alternative for the Final EIS.

Alternatives Analysis; page 4-25:

Section 4.2.4.3 discusses different cooling media and says "use of seawater as the primary cooling media is not the preferred cooling system alternative." There are only 2 types of cooling media alternatives analyzed in the Draft EIS. If one type is not preferred, then by default you are declaring the other alternative as the preferred alternative.

Recommendation: Please clarify if a preferred cooling media alternative has been identified.

Alternatives Analysis; page 4-25, 4-86:

The alternatives analysis and comparison is vague and lacks information. Other than the proposed alternative, there isn't any quantitative description or comparison of alternatives. For instance, page 4-25 says "Use of alternative deepwater port designs may influence the duration or extent of impacts on water resources during construction, operation, and decommissioning. Water usage would be dependent on the type of specific systems that would be selected for each alternative, as well as the number and type of support vessels required for operations. Installation of a fixed platform-based unit would result in additional seafloor disturbance. Other alterative deepwater port designs would result in similar impacts on water resources."

The previous sentence does not describe how, or in what way, port designs may influence duration and extent of impacts on water resources. There is no description of the amount of water use of each system or a description of support vessels. There is only the statement that a fixed platform unit would result in additional seafloor disturbance but it doesn't say how much more. Instead of an actual assessment of alternatives and determination of associated impacts there are statements that one alternative has less/greater impacts than another.

Recommendation: While it helps to know which alternatives are the most or least impactful to resources; it falls short of qualifying as an alternatives analysis and determining impacts. EPA recommends USCG and MARAD replace all instances of vague comparisons of impacts to resources with quantitative analysis that can be used to draw conclusions. For instance, when describing impacts to the seafloor it helps to have acreages. When discussing noise, only minimal information is conveyed in knowing one alternative is louder than the other. It would more useful to know the decibel level of the two noises to make a comparison. If specific impacts cannot be determined, EPA recommends estimating a range of impacts that are possible.

CONSULTATION AND COORDINATION

Table 1.5-1, on page 1-12, lists the consultations and permits that must be completed or obtained. The opinions of resource agencies tasked with the duty to carry out consultation are important and should be included in the FEIS. Without these opinions, interested parties are not able to fully assess the impacts of the project.

Recommendation: EPA recommends that the following consultation be completed and added to the table: FEMA – Executive Order (EO) 11988 – Many project components will be built inside FEMA designated 100-year flood zones. Development inside a floodplain still requires consultation with FEMA or a designated county Floodplain Administrator. Also, please follow all recommendation made by consultation or permitting agencies.

State Historic Preservation Officer (SHPO) consultation; page 4-179:

The northern portion of the Delfin Onshore Facility (DOF) has artifacts that may be eligible for National Register of Historic Places (NRHP). The Draft EIS says if avoidance isn't possible, then a Memorandum of Understanding (MOU) would need to be developed. It should be determined as quickly as possible if avoidance is possible. USCG or MARAD should make a determination if the site is eligible and submit to the SHPO for concurrence. If eligible, then an avoidance plan should be put in place. If this is not possible then an MOU needs to be developed immediately, not later, and put in the Final EIS.

Recommendation: EPA recommends determining if the site is eligible for inclusion on the NRHP, and developing an avoidance plan. If this is not possible, then an MOU should be developed.

IMPACTS

Cumulative Impacts; page ES-4:

The Draft EIS discussed purchasing a building from the Johnson Bayou Recreation District and constructing the District a new building at a different location. Delfin LNG would also construct a new warehouse. The new warehouse and construction of a new building for the Recreation District were not discussed in other sections of the Draft EIS.

Recommendation: Disclose the impacts tied to the construction of a new building for the recreation district and construction of a new warehouse for Delfin LNG.

Potential Impacts; page 2-12:

Section 2.2.9 says that project construction wouldn't require any new pipe yards or laydown areas. This contradicts information on page 2-17 that states "Prior to construction, all aboveground facility footprints and required additional temporary workspace would be cleared of any large obstacles such as trees, boulders, logs, etc. Timber and other suitable vegetative

debris would be chipped and utilized as mulch for erosion control or disposed of per landowner requirements or in accordance with applicable local regulations. Once large obstacles are removed from the construction workspace, the site would be graded to create a level working surface to allow the safe passage of construction equipment."

Recommendation: Please clarify if there will be temporary or permanent land clearing, grading, or landscape modification that is outside of the impact assessment footprint associated with the DOF. If so, include a robust discussion of the impacts of habitat modification.

Impacts to protected species; page 4-39, 4-46, 4-61:

The Draft EIS states use of thrusters may result in a Level A taking of sea turtles and marine mammals since noise levels will exceed level A acoustic thresholds. The EIS states this effect will be mitigated, but does not offer any specifics as to how this will occur. Pile driving noise is expected to result in level A take for sea turtles and marine mammals protected under the marine mammal protection act (MMPA). The use of LNGC's will have operational noise that will result in long-term, moderate, and direct adverse impacts and will result in level A take on MMPA species and level B take on sea turtles.

The Draft EIS states that "hundreds of thousands" of birds die every year as a result of marine lighting. The EIS states that mitigation measures will be used to reduce the incidence of migratory bird treaty act (MBTA) species dying as a result of marine lighting. The Draft EIS does not say how many fewer birds will die, if there's an acceptable number of birds that can be killed each year, or how the effects from mitigation will be measured.

Recommendation: Follow all recommendation made by federal and state consulting agencies regarding protection of species. Clarify how these effects are expected to be mitigated, and explain how the mitigation will be monitored. Explain what will occur if the mitigation does not have the desired effect. EPA recommends all consultations for protected species be completed prior to the release of the Final EIS.

CLIMATE

Greenhouse Gas Emissions:

The DEIS included a helpful discussion of the greenhouse gas (GHG) emissions associated with construction, operation and decommissioning of the project, but did not include estimates of the GHG emissions associated with the production, transport, and combustion of the natural gas proposed to be exported. Because of the global nature of climate change, even where the ultimate end use of the natural gas occurs outside the U.S., these additional GHG emissions attributable to the project would affect the U.S. Because of these impacts, it is appropriate and consistent with NEPA and CEQ regulations to consider and disclose the emissions levels in NEPA analyses.

DOE has issued two documents that are helpful in assessing the GHG emissions implications of the project. They are the "Addendum to Environmental Review Documents

Concerning Exports of Natural Gas from the United States."[1] and NETL's report, entitled "Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States."[2] Together, these reports provide a helpful overview of GHG emissions from all stages of a project, from production through transmission and combustion. The NETL report includes comparative analysis of GHG emissions associated with other domestic fuel sources and LNG exports as they relate to other possible fuel sources in receiving regions. This information can help decision makers review foreseeable GHG emissions associated with the increased production and export of natural gas compared to other possible fuels. EPA recommends that both DOE reports be considered as part of the decision making process for this project and incorporated by reference in the final EIS. In addition, we recommend that you consider adapting DOE's analysis to more specifically consider the GHG implications of projects.

Lastly, EPA recommends that USCG and MARAD follow the approach outlined by the CEQ's Guidance[3] regarding the analysis of GHG emissions and climate change.

ENVIRONMENTAL JUSTICE

- EPA recommends that the USCG determine the cumulative impacts that the project will have on overburdened communities. For example, if the Environmental Justice community/population is already having health issues due to high level of air pollutants, determine if the project will have an adverse impact on the air quality in that area.
- EPA, with the Interagency Working Group on Environmental Justice, has issued Promising Practices for EJ Methodologies in NEPA Reviews. *See* https://www.epa.gov/environmentaljustice/ej-iwg-promising-practices-ej-methodologies-nepa-reviews. We recommend that the USCG consider and apply, as appropriate, these considerations.

GENERAL COMMENTS

- There are several areas within Chapter 3 of the Draft EIS which state the project will need a NPDES permit issued by the U.S. Army Corps of Engineers. The EPA is responsible for issuing NPDES permits in offshore waters. Please correct the typo throughout the EIS.

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[1] Draft Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States. DOE. (http://energy.gov/sites/prod/files/2014/05/f16/Addendum_0.pdf).

[2] Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States. DOE/NETL-2014/1649 (http://energy.gov/fe/life-cycle-greenhouse-gas-perspective-exporting-liquefied-natural-gas-united-states).

[3] *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews*. August 1, 2016 (https://ceq.doe.gov/current_developments/ceq_guidance_nepa-ghg-climate_final_guidance.html).