



Calypso LNG, LLC

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December 17, 2007

Ms. Mary K. Jager
United States Coast Guard (CG-3PSO-5)
2100 Second Street, SW
Room 1508
Washington, DC 20593-0001

**RE: Comments to Draft Environmental Impact Statement
 Calypso LNG Deepwater Port License Application dated November 2007
 Docket No. USCG-2006-26009**

Dear Ms. Jager:

Attached please find a matrix for your consideration representing Calypso LNG, LLC's comments to the U.S. Coast Guard's Draft Environmental Impact Statement for the Calypso LNG deepwater port project.

If you have any questions or comments, please do not hesitate to contact me at (713) 636-1216.

Sincerely,

Dan McGinnis
Vice President
Calypso LNG, LLC

cc: Mark Prescott – USCG, Deepwater Ports Standards Division
 Bradley K. McKittrick – USCG, Deepwater Ports Standards Division
 H. Keith Lesnick – Deepwater Ports Program Manager, MARAD
 Bradley Cooley – Director of Development Initiates, SUEZ
 Antonino Riccobono – Principal, Ecology and Environment, Inc.

Enclosure

Calypso LNG LLC's Comments on the Draft Calypso DEIS dated November 2007

Comment #	Topic/Resource Area	Section/ Subsection No.	Page No./ Paragraph No.	Comment																																			
1	Environmental Consequences and Mitigation	Water Resources	ES-9 / 6 and ES-10 / 2	<p>Page ES-9 of the DEIS states: "Impacts to these species associated with entrainment were determined through the use of an Empirical Transport Model (ETM), in which the average daily seawater intake of the proposed Calypso Port (43.6 million gallons per day [mgd]) . . ."</p> <p>Page ES-10 of the DEIS states: ". . . in addition to the 43.6 mgd required for the engine-cooling and ballast water of the SRS, TRVs, and LNG carriers during normal operations."</p> <p>The table below summarizes the "maximum" potential seawater use from all intake sources on the SRS, TRVs, and LNG carriers that would operate at the port. The maximum potential daily seawater use assuming all intake sources operating simultaneously would be 43.67 mgd. It is important to point out that this would only occur when all three vessels are at the port at the same time, which does not happen continuously even when the port is operating at maximum output (for example, the LNG carrier which contributes to more than half the water usage in this maximum case will only be at the port during unloading to the SRS). For normal water usage information, please refer to Data Gap Response # 29.</p> <p>Maximum Potential Seawater Use (mgd) from All Intake Sources</p> <table border="1"> <thead> <tr> <th>Intake Source</th> <th>SRS</th> <th>TRV</th> <th>LNG Carrier</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Engine Cooling</td> <td>0</td> <td>7</td> <td>8.2</td> <td>15.2</td> </tr> <tr> <td>Ballast</td> <td>8.2</td> <td>2.7</td> <td>16.8</td> <td>27.7</td> </tr> <tr> <td>Water Curtain</td> <td>0.16</td> <td>0</td> <td>0.16</td> <td>0.32</td> </tr> <tr> <td>Desalination</td> <td>0.44</td> <td>0</td> <td>0</td> <td>0.44</td> </tr> <tr> <td>Firewater</td> <td>0.01</td> <td>0</td> <td>0</td> <td>0.01</td> </tr> <tr> <td>Total</td> <td>8.81</td> <td>9.7</td> <td>25.16</td> <td>43.67</td> </tr> </tbody> </table> <p>Please also note similar discrepancies in other sections of the DEIS as follows:</p> <ul style="list-style-type: none"> Page 4-19 states that "during normal operations would equate to a combined total of 43.2 mgd . . ." Page 4-45 states "A combined volume of 43.2 mgd of seawater would be taken in by the LNG vessels for ballast. . ." Page 4-60 states that "during normal operations would equate to a combined total of 43.2 mgd." Appendix G, page 3-5 states that ". . . a total normal seawater intake is 43.2 mgd is expected". 	Intake Source	SRS	TRV	LNG Carrier	Total	Engine Cooling	0	7	8.2	15.2	Ballast	8.2	2.7	16.8	27.7	Water Curtain	0.16	0	0.16	0.32	Desalination	0.44	0	0	0.44	Firewater	0.01	0	0	0.01	Total	8.81	9.7	25.16	43.67
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2	Alternative Deepwater Port Locations	2.2.1.3	2-63 / 1	<p>The DEIS states that Calypso indicated that the buoys would need to be separated by a minimal distance of approximately 3 miles to minimize the risk of collision between vessels arriving at or departing from one buoy with vessels already moored at the other. However, The DPLA states: "The buoys must be separated by a certain minimal distance (approximately 2 nautical miles) to ensure elimination of collision risk between vessels arriving at and/or departing from one terminal and vessels stationed at the other terminal" (see Section 2.7.1, page 2-20). Data Gap # 21 also provides further clarification regarding 2.0 nautical miles minimal separation distance. For the Calypso DWP project, the actual separation between the buoys for the preferred alternative is 2.6 nautical miles.</p> <p>Please also note that the unit of measurement is "nautical miles," which differs from miles. Please revise the unit of measurement for the separation between buoys to be "nautical miles."</p>																																			
3	Noise	3.10.1.2	3-93 / 1	<p>The DEIS states: "A supertanker radiates noise in the water at 190 dB (re: 1µPa at 1 m). The equivalent noise level in the air is about 164 dB (re: 20µPa at 1 m), which is much louder than a jet engine."</p> <p>Underwater noise radiated by a supertanker is generated by the main propulsion machinery, auxiliary engines, and the turning of the propellers in the water. Since these are not sources of airborne noise—which is the implication made by converting the underwater noise level to an airborne noise level—the second sentence should be deleted.</p>																																			
4	Noise	3.10.1.2	3-94 / 1	<p>The DEIS states: "In accordance with these criteria, USN has applied a marine mammal harassment and nonserious injury upper limit of 180 dB re: 1 µPa in many published environmental studies for military operations in offshore areas."</p> <p>This reference to U.S. Navy (USN) underwater noise criteria is related to the use of sonar, not the movement of vessels or underwater construction impacts. Since this has no relation to the proposed action, Calypso LNG LLC recommends this paragraph be deleted.</p>																																			

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5	Biological Resources	4.3.1.2	4-31 / 2	<p>The DEIS states: "Broadband noise source levels for construction vessels, the most significant noise source that would be produced during construction, would range from approximately 168.1 to 199.7 dB re 1 µPa-m (see Table 4.3.1-2). In addition, noise created by suction anchor placement would reach a broadband level of 138 dB re 1 µPa-m. Each of these produced noises would trigger acoustic harassment levels for marine mammals. The vessels would trigger Level A harassment, and placement of the suction anchors would trigger Level B harassment for continuous sound. Individuals present in the area at the time of construction would experience masking, which would potentially interfere with an individual's ability to hear the sounds of conspecifics or of hazards, such as approaching vessels."</p> <p>The paragraph implies that there is a firm threshold demarking non-harassment activities from harassment activities, which there is not. It also perpetuates the misconception that the broadband source level would not attenuate. In fact, the underwater sound would quickly attenuate as one moves away from the source. SUEZ's study for <i>Neptune</i> (Massachusetts Bay) showed that:</p> <ol style="list-style-type: none"> 1. <u>Suction Piles</u>. While the broadband source level would indeed reach 138 dB, the results of modeling show that underwater sound levels would attenuate to 90 dB within 0.3 km of the source, depending on water depth. This is clearly not Level A or Level B harassment. Only driving piles would result in Level A harassment. 2. <u>Construction Vessels</u>. Setting aside the contention that NOAA Fisheries Service would even consider permitting vessel noise (very unlikely), the underwater sound generated by construction vessels would also attenuate to about 150 dB within feet of the source (i.e., almost at the source) and be less than 120 dB, depending on season and water depth to 120 dB within 10 km or so. Clearly there is no Level A harassment, but there would be Level B harassment. In fact, Neptune is seeking an Incidental Take Authorization from NOAA Fisheries Service for construction of their pipeline and port. This permit would not be focused on vessel noise, but would include the noisy construction-related activities associated with the vessels. <p>Additional information for <i>Calypso</i> was provided in Data Gap Responses 116, 117, and 118.</p>
6	Threatened and Endangered Species/Operation Impacts/Noise	4.3.1.2	4-34 / 1 st full paragraph	<p>The DEIS states: "Regasification operations at the proposed Calypso Port are expected to create excessive noise within the proposed Project area." Suggest rewording to avoid the use of "excessive," which is a subjective term that is risky to use to describe noise in an EIS.</p>
7	Threatened and Endangered Species/Operation Impacts/Noise	4.3.1.2	4-34 / 2	<p>The text should account for the attenuation of the noise generated by the regasification process by the hull. It assumes that the source level of the regasification process is 165 dB re 1µPa at 1 m. The following information, provided in the response to Data Gap 118, does not appear to have been considered in developing this analysis:</p> <p>"Based on information prepared by JASCO Research Ltd (2005) for the Neptune DWP, the regasification equipment aboard the SRS and TRVs could generate continuous source levels ranging from a low of 131 dB at a center frequency of 31.5 Hz to a high of 151 dB at a center frequency of 2000 Hz. It is important to note that these source levels overstate the noise effects of the regasification process as they were measured in-air instead of in-water and do not account for dampening by the hull of the vessel. Even so, the propagation of the signal would not exceed 110 dB re 1 µPa @ 1m beyond about 3 nautical miles from the source. There would be no situations in which the noise level would exceed 120 dB even a few meters from the vessel. Therefore, there would be no disturbance of baleen or toothed whales with operation of regasification equipment within the SRS or a TRV moored at the proposed <i>Calypso</i> DWP."</p>
8	Impacts to Recreational and Visual Resources	4.6.1.1	4-76 / 2	<p>In Section 4.6.1.1 (Page 4-76) and in several places throughout Section 4, the term "distasteful" is used to represent a possible perceived negative opinion of onshore viewers about the presence of LNG vessels at the DWP during operation. For example: "Some offshore viewers may perceive the proposed Port as a point of visual interest while others may find it visually distasteful."</p> <p>The wording used in the Executive Summary (page ES-11, 4th paragraph) seems to be more appropriate / neutral and for consistency, we recommend using the same wording in Section 4:</p> <p>"<i>Proposed Action</i>. The primary impact to visual resources would be the introduction of new objects to the marine viewshed. These objects would generally appear similar to existing ships and vessels. However, they would be stationary for extended periods, while most other ships and vessels 8 to 10 miles offshore are transient components of the viewshed. This would represent a minor, long-term alteration of the viewshed that would persist for the life of the proposed Project."</p>
9	Noise / Underwater Noise	4.10.1.1	4-108 / 3	<p>The analysis focuses on the broadband source level of various construction activities 3.3 feet from the source and ignores that fact that the sound level would attenuate further from the source. The results of underwater noise modeling for the <i>Neptune</i> deepwater port in Massachusetts Bay show that pipelaying noise would attenuate to less than 120 dB from 6 to 10 km from the source, depending on propagation conditions. In any event, marine mammals would likely avoid the proposed construction activity and would not be as close as 3.3 feet from operating construction equipment. At most, marine mammals would be exposed to sound levels associated with Level B harassment, not Level A. Thus the impact conclusion overstates the likely effect of <i>Calypso</i> port construction on marine mammals.</p>

Calypso LNG LLC's Comments on the Draft Calypso DEIS dated November 2007

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10	Noise / Underwater Noise	4.10.1.1	4-108 / 4	There is no analytical support for the statement that “[underwater] construction noise could result in annoyance to recreational boaters or fishers near the proposed Calypso port.” Unless the analysis assumes that recreational boaters and fishermen would be swimming or diving in the water, they cannot be receptors.
11	Marine Mammals	6.3.2.3	6-22 / 2	This paragraph is written as if potential noise impacts would occur in a confined space. Instead, the potential underwater noise effects associated with the identified projects would be localized to the immediate port or pipeline construction route. They would occur in the ocean area off South Florida but would not overlap geographically. The DEIS also assumes that the installation of all these projects would occur concurrently, which is not necessarily accurate. The paragraph includes no analysis that supports the conclusion that there would be significant cumulative effects on marine mammals from the proposed projects. The discussion on the right whale does not link critical habitat or the actual probability of the animal being present in the various project areas to the potential for impacts, but nevertheless predicts adverse impacts.
12	Fisheries Resources	6.3.2.6	6-24 / 1	The DEIS states: “Fish stocks in the ROI are currently stressed by over-fishing, habitat degradation and deterioration of water quality.” No support/source for this statement is provided. It is not statistically defensible to simply say that fish stocks in the ROI are stressed by any of the parameters mentioned. The statement should be deleted or be reworded to qualify its actual intent as applied to the Calypso DWP ROI.