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December 8, 2005

Magalie R. Salas, Secretary
Federal Energy Regulatory Commission
888 First Street, NE, Room 1A
Washington, DC 20426

Robert Kanter, Ph.D.
Planning Division
925 Harbor Plaza
Port of Long Beach
Long Beach, CA 90802.

Re: Comments of Crystal Energy, LLC on the Draft EIS/EIR for the Port of Long Beach LNG Import Project (Docket No. CP04-58-000, et al.)

Dear Ms. Salas and Dr. Kanter:

Crystal Energy, LLC ("Crystal") is pleased to have the opportunity to submit the following comments on the draft Environmental Impact Statement/Environmental Impact Report ("EIS/EIR") for the Port of Long Beach ("POLB") LNG Import Project proposed by Sound Energy Solutions ("SES") in the above-referenced dockets. Crystal's specific comments, focused on the alternatives analysis presented in the EIS/EIR, are preceded by general comments on the Clearwater Port Project.

GENERAL COMMENTS

The Crystal Clearwater Port project will convert existing Platform Grace to a state of the art LNG receiving and regasification facility. Platform Grace will be used exclusively as an LNG facility with a peak design capacity of up to 1.4 Bcf/day. A Satellite Service Platform ("SSP") Floating docking system will be installed adjacent to Platform Grace to safely moor LNG vessels. LNG will be transferred from the vessel to Platform Grace using cryogenic hose or an unloading arm system. Regasification of LNG on Platform will be accomplished using Forced Draft Ambient Air Vaporizers (as opposed to natural draft vaporizers). The natural gas

will then be transported to shore via a thirty-six inch pipeline utilizing the existing and well-documented offshore pipeline right of way ("ROW") associated with Platform Grace. SoCalGas Company will take custody of the gas at landfall, and build a new natural gas pipeline to transport the vaporized gas from the landfall to a junction point with the existing SoCalGas Company system at Center Road.

Although the EIS/EIR correctly notes that the Clearwater Port Project has not yet been deemed "data complete" for the purpose of preparing an EIS/EIR for the project, Crystal is currently working diligently with the reviewing agencies to answer their remaining questions. Crystal is also expending considerable resources to conduct geophysical surveys and collect other information requested by the reviewing agencies. Crystal expects to file its responses to the agencies' remaining requests during the first quarter of 2006.

To provide additional information on the status of the Clearwater Port Project, Crystal is attaching hereto a copy of Crystal's presentation to the California State Senate's Energy, Utilities and Communications Committee. This information was provided for the Committee's Informational Hearing on October 27, 2005, in Sacramento on liquefied natural gas issues. Additional information can also be found on the Crystal Clearwater Port's website at: http://www.crystalenergyllc.com/en/index.php and in Crystal's responses to reviewing agencies.

SPECIFIC COMMENTS

Description of the Crystal Clearwater Port, PP. 3-13 to 3-14.

The EIS/EIR includes a general description of the Crystal Clearwater Port Project that is generally accurate; however, for purposes of discussing alternatives, the EIS/EIR should be corrected and/or clarified concerning the following points:

- The Clearwater Port project does not import LNG into the State of California. All processing of LNG will occur outside of State waters, and only natural gas will be imported into the state via conventional sub sea pipelines.
- SoCalGas Company will take custody of the gas at the Mandalay landfall, and build a new natural gas pipeline to transport the natural gas from the landfall to a junction point with the existing SoCalGas Company system at Center Road, the same location as the BHP project.
- The peak capacity of the Clearwater Port Project will be 1.4 bcf/d.

Clearwater Port's Ability to Provide Stability to the Southern California Gas Market, P. 3-14.

The EIS/EIR, states, "Because the Crystal Energy project would not include LNG storage it would not be able to provide stability to a market with fluctuating energy supply and demand." This statement is incorrect, and is misleading as to one of the primary purposes of storage at an LNG import terminal.

At facilities such as the POLB, LNG project storage is required to minimize unloading time required for the tankers. LNG tankers typically unload at a peak rate of 12,000 to 14,000 cubic meters per hour, or approximately 6 plus Bcf/day. This peak ship unloading rate of up to 6 Bcf/day is a much higher rate than can be received by the SoCalGas system. For purposes of these comments, "buffer storage" is LNG storage, dedicated and required to unload the LNG tanker at a high rate, which is typically much higher than the send out capacity of the terminal. Thus, storage at a facility at the Port of Long Beach is required to allow for expedited offloading of ships, completely unrelated to the facility's "send out of gas" to SoCalGas system. Put another way, instead of offloading ships at up to 6 Bcf/day into liquid onshore storage tanks, the POLB project could, instead, offload at a slower rate directly into the SoCalGas system, effectively using the LNG vessels themselves as storage.

The basic decision for constructing buffer storage is an economic one: the cost of constructing storage tanks (onshore or offshore) versus the costs of having LNG tankers in port for the additional days for the tankers to unload at a rate the SoCalGas system can accept. For some projects, there are additional reasons to want to minimize the time the tanker is berthed, such as security or community concerns, and impacts to local port traffic. However, these concerns are not issues for Crystal's Clearwater Port. Moreover, Crystal's analysis demonstrates that for Clearwater Port, it is more cost effective to not construct buffer storage. It should be noted that the Clearwater Port approach, of utilizing tankers in lieu of constructing buffer storage, is currently operating effectively at Gulf Gateway Project in the Gulf of Mexico.

Additionally, gross storage does not equate to working storage. Sufficient LNG must remain in the tanks for the pumps to operate, and to keep the tanks cool. Typically a 160,000 cubic meter tank will have a working capacity of 151,000 cubic meters, such that the POLB project will only have 302,000 cubic meters working storage.

The working storage capacity of each onshore LNG tank (151,000 cubic meters) is only slightly greater than the storage capacity of a typical LNG tanker ("SES anticipates receiving LNG vessels with capacities up to 145,000 cubic meters for the foreseeable future" (P. 4-91.) The required buffer storage capacity must be emptied out prior to the next tanker berthing and unloading. Thus, the available storage capacity does not serve as "storage" in the conventional sense as the send out of this LNG is not driven by demand. Instead, storage at the POLB is driven by shipping schedules, not send out to the SoCalGas system.

The EIS/EIR notes that typical ship capacities will range from 125,000 to 165,000 cubic meters (gross). For purposes of this discussion we will assume that the maximum delivered cargo will be 151,000 cubic meters. This leaves only 151,000 cubic meters to serve as conventional, or effective storage, equivalent to one tanker load. Thus, from a SoCalGas system *send out* perspective, the POLB project essentially operates the same as Clearwater Port: The POLB send out is drawn from land-based storage while Clearwater Port's send out is drawn from the LNG vessel. Accordingly, from the perspective of "stability" of natural gas send out into the

SoCalGas market, whether the supply to be sent out is drawn from on-land storage or from the LNG ships utilizing Platform Grace is completely immaterial.

For the POLB project, this buffer storage should not be included as storage designed to provide market stability, as there must be adequate buffer storage capacity to unload the tanker when it arrives. The EIS/EIR should address the differences between, gross, working, and buffer storage, and should note that less than 50% of the gross storage capacity is available as storage in the conventional sense. The EIS/EIR should note that once the conventional storage capacity of one tanker load is full, their operating restrictions are essentially identical to those of Clearwater Port. It should also be noted that if for some reason, the buffer storage could not be emptied, a tanker may be prevented from unloading cargo, or in the alternative, it will be required to be at berth in the Port for 3 or more days to unload.

The EIS/EIR should discuss the operational issues associated with the POLB project's location so close to the load center. From the perspective of the operation of the SoCalGas System, does the POLB project require onsite storage because the point of delivery is immediately adjacent to the load center and because there is little if any existing storage between the point of delivery and the load center? Without onsite storage, would even a slight disruption in the POLB deliveries cause a much greater impact on adjacent loads?

For more remote supplies such as the Clearwater Port project, the key is that the supply be scheduled so that SoCalGas can adjust its system accordingly. Scheduling adjustments can be made on just a few hours notice by Crystal without disruption to the SoCalGas system. Because Crystal's Clearwater Port is not located immediately adjacent to a major load center and because of the storage available on the SoCalGas system (between the point of delivery and the load center), Crystal supplies will be just as "stable" as SES, if not more so. Given the POLB project's location in the middle of a load center and the potentially significant adverse effects on the operation of the SoCalGas system from a complete supply interruption in the middle of a load center, onsite storage is a necessary project feature, not an operational advantage compared to other LNG projects.

Further, there is sufficient storage available in the SoCalGas system and in California gas storage fields to maintain operational stability of the SoCalGas system at Center Road. In testimony filed with the California Public Utilities Commission in an ongoing Rulemaking proceeding (R.04-01-025, "Order Instituting Rulemaking to Establish Policies and Rules to Ensure Reliable, Long-Term Supplies of Natural Gas to California") SoCalGas provided the following testimony confirming the availability of storage on the SoCalGas system:

> SoCalGas operates four storage fields that interconnect with its transmission system. These storage fields – Aliso Canyon, Honor Rancho, La Goleta, and Playa del Rey – are located near the primary load centers of the SoCalGas system. Together they have a combined inventory capacity of 122.1 billion cubic feet (Bcf), a combined firm injection capacity of

850 MMcf/d, and a combined firm withdrawal capacity of 3,175 MMcf/d. (Prepared testimony of David M. Bisi, CPUC R. 04-01025, attached hereto.)

Thus, while there is sufficient storage in the SoCalGas system for a remote facility such as Crystal's Clearwater Port project, the EIS/EIR should explore whether there is sufficient storage available to serve the POLB project.

"Daily" Deliveries Are Not A SoCalGas Operational Criteria, P. 3-14.

The EIS/EIR states, "A disadvantage of offshore LNG facilities that do not have LNG storage capacity (such as the one proposed by Crystal Energy) is the potential for delays in ship arrivals and the associated delays in the delivery of natural gas to meet the daily demand of customers."

First, there is no factual material cited to support this proposition.

Second, as discussed in comments above and below, the Crystal facility will meet all SoCalGas operational standards. It is not necessary for any LNG facility to guarantee daily deliveries. Because "daily" deliveries are not a necessary operational characteristic, a project's ability to do so is not an advantage and inability to do so is not a disadvantage.

Third, the EIS/EIR should reflect the fact that the effective storage of LNG at the POLB would only last approximately 3 days. Specifically, if "daily" deliveries were required and LNG tankers could not offload due to poor weather or other vessels taking priority, the POLB would not be able to provide "daily" deliveries after 3.3 days.[1]

Fourth, with regard to potential weather delays discussed here and throughout the EIS/EIR, both onshore and offshore LNG tankers require local pilots to bring the ships into their respective ports and deepwater ports. Moreover, all LNG tankers must be boarded and inspected by U.S. Coast Guard inspectors and other officials dedicated to security. Both offshore and onshore LNG facilities face the same limiting factors, i.e., the ability of tanker pilots and U.S. Coast guard officials to safely board LNG tankers. If the weather is so severe that LNG tanker pilots and U.S. Coast Guard officials cannot gain access to the LNG tanker, it is equally clear that both onshore and offshore facilities will be interrupted by adverse weather conditions. Thus, the EIS/EIR should be revised to recognize severe weather conditions as an equal, limiting factor on both onshore and offshore LNG facilities.

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[1] Calculations assume: At 86 degrees F (30 degrees C) - -> 1 cf LNG = 625.512 cf gas; 151,000 cubic meters LNG = 5.33X10^7 cubic feet LNG= 5.33 bcf LNG; Flow rate = 1 bcf/day gas phase;
Calculations
- Convert total storage liquid volume to total equivalent gas phase volume: 5.33X10^7 cf LNG X (625.521 cf gas/1 cf LNG) = 3.34X10^9 cf gas = 3.34 bcf gas
- Estimate time to flow out total storage: (3.34 bcf gas)/(1 bcf/day) = 3.34 days to flow out total storage

LNG Vessel May Be Prevented From Entering the Port, Interrupting Supply

If the potential for delays in ship arrivals at offshore facilities is discussed, while the EIS/EIR emphasizes the storage at the Port of Long Beach, the EIS/EIR should be revised to be internally consistent. Specifically, as set forth in the EIS/EIR LNG vessel will not have priority passage rights to enter the Port of Long Beach. In fact, other vessel traffic may mean that LNG ships bound for the POLB LNG facility may be kept at sea for days to accommodate other vessel traffic in the port.

The EIS/EIR expressly recognizes that LNG vessels may be kept out of the Port to accommodate other vessels: "It is possible that the container ships would take *commercial priority* and any *delay would then fall on the LNG ships*." (P. 4-92; emphasis added.) The EIS/EIR characterizes this as a possibility. Similarly, the EIS/EIR at page 4-152 states that the POLB will not control whether LNG vessel will be given access to the Port: "The Coast Guard, VTS, and Jacobsen Pilots *would determine the best time to bring the LNG ship to berth* based on security concerns, impacts on other vessels, weather conditions, and other factors." (Emphasis added.) Thus, the POLB project does not control access to the Port, which directly affects the amount of storage required for the project to operate as designed.

The fact that the POLB project will not control Port traffic reinforces the fact that LNG storage at the POLB is a basic necessity for the project to be viable, not an "advantage." Moreover, the EIS/EIR should be revised to replace speculation over LNG vessel transit with a factual analysis. Without such an analysis, the public cannot determine, for example, what the effects may be if LNG vessels are prohibited from entering the Port for so long that all of the storage at the POLB facility is used. The EIS/EIR should also be revised to recognize that the LNG vessels may be prohibited from entering the Port and the effects such prohibitions on deliveries on the SoCalGas system. [2]

Ship Deliveries Can Be Scheduled to Provide a Continuous Supply of LNG, P. 3-14.

In discussing offshore facilities, the EIS/EIR states, "Because of the uncertain maritime sailing conditions (e.g., adverse weather), LNG ships can take up to 24 days to get from the export or loading port to the import or unloading location."

The speculation as to ship transit time should be deleted because it is wholly irrelevant to the issue of how much LNG may be processed offshore by Clearwater port. It is ship

[2] To be clear, these comments do not suggest that the POLB project is infeasible because it is possible that storage may be completely depleted if LNG vessels are denied entry to the Port. Since daily deliveries of LNG are not an operational requirement, the POLB could effectively operate even if supplies of LNG were interrupted for days or weeks due to shipping conflicts with other Port activities. Indeed, it is well-documented that LNG receipt terminals on the East Coast and the Gulf of Mexico were under-utilized for many years, receiving far less cargo than would have been required for "daily" flows of natural gas. Nevertheless, these projects continue to operate.

scheduling, not ship transit time, that is important to the volume of LNG that passes through an LNG facility, whether onshore or offshore. Crystal has the ability to schedule ships to arrive, one right after another on a nearly continuous basis, limited only by the availability of the same fleet of ships that would be available to serve the POLB. The EIS/EIR should be revised to reflect the importance of ship scheduling as the salient factor.

Natural Gas Can Be Stored in the SoCalGas System and other Gas Storage facilities, P. 3-14.

The EIS/EIR States, "A facility with fixed LNG storage tanks (either onshore such as proposed by SES or offshore such as proposed by BHP) with standing vaporization capacity compensates for variations in ship arrivals as well as fluctuations in onshore natural gas demand and allows for controlled deliveries of natural gas to onshore customers between LNG deliveries."

As discussed above, it is undisputed that natural gas is stored in the SoCalGas system. The SoCalGas storage system has "a combined inventory capacity of 122.1 billion cubic feet (Bcf)". The effective storage capacity of the POLB project will increase this by only 3.3 Bcf, or less than 3% (3.3/122.1 = 0.027), and will not be significant with regards to providing additional storage on the SoCalGas system. As discussed above, buffer storage which is required for operational reasons at the POLB project, should not be confused with system storage. Clearwater Port does not require buffer storage for LNG, as this will be provided by LNG vessels as they unload at the Clearwater Port. Clearwater Port will provide a new supply of natural gas that can be delivered or stored on shore.

Weather and Ship Transit Time, 3-15.

The EIS/EIR states, "Weather not only significantly influences ship travel time between ports, but adverse weather has a higher probability of delaying LNG deliveries to unprotected offshore terminals such as those proposed by Crystal Energy and BHP."

First, ship travel time between ports is irrelevant. It is ship scheduling that is relevant. Second, even assuming that ship travel time was relevant, it is axiomatic that ships will arrive at a location 12 miles offshore *first*, well before they begin their entrance into the Port. Further, the only ship traffic accessing Clearwater Port will be LNG tankers. In contrast, LNG tankers entering and exiting the POLB will have to be scheduled around other marine traffic, some of which has priority over LNG tankers, causing further berthing delays. Thus, to the extent ship travel time is relevant, the EIS/EIR should be revised to reflect that ships in transit will reach the offshore facilities hours, if not days, before they enter a land-based port. Third, the berthing, mooring, and unloading facilities at Clearwater Port will be designed and constructed to allow for successful berthing and unloading of ships in adverse sea conditions. Finally, as discussed above, pilot access to the LNG tanker and US Coast Guard inspector access to LNG tankers are the limiting factors for both onshore and offshore LNG facilities. If conditions are such that

pilots and Coast Guard inspectors cannot reach the LNG tankers safely, both onshore and offshore facilities are equally constrained by weather.

Adverse Weather Conditions and the Effects on Onshore and Offshore Terminals, P. 3-15.

The EIS/EIR states, "Adverse weather (e.g., high seas) could delay the unloading of LNG vessels for several days to a week, depending on the conditions, while the same weather would have little impact on deliveries to onshore facilities located in a protected port. The potential for severe weather delays would equate to a need for increased storage volume at offshore terminals to maintain a predictable, constant flow of natural gas to shore."

Again, there are no citations to any factual materials supporting the claim that adverse sea conditions will prevent unloading of LNG. As discussed above, the berthing, mooring, and unloading facilities at Clearwater Port will be designed and constructed to allow for successful berthing and unloading of ships in adverse sea conditions.

Moreover, the EIS/EIR incorrectly suggests that while rough seas may prevent the loading and unloading of LNG offshore, those same rough seas will not prevent LNG vessels from moving in and out of the Port of Long Beach. As discussed above, pilot access to the LNG tanker and US Coast Guard inspector access to LNG tankers are the limiting factors for both onshore and offshore LNG facilities. If conditions are such that pilots and Coast Guard inspectors cannot reach the LNG tankers safely, both onshore and offshore facilities are equally constrained by weather. The EIS/EIR lacks any factual information to support the suggestion that sea conditions could shut down a facility located miles offshore but still allow those same tankers to access and egress from the Port. Further as discussed above, the POLB project will only have 3.6 days effective storage. If sea states prevent LNG tankers, and potentially other ships, from entering into the POLB "for several days to a week," LNG tankers seeking access, may not only have to wait for suitable conditions, they may have to wait for other ships which may have priority access to the port. Thus, the EIS/EIR should not speculate on the potential effects of adverse weather on offshore or onshore facilities because it lacks any factual materials to support any such claims.

LNG Vehicle Fuel, *Passim* (See Specific Page Citations below) .

The EIS/EIR states, "As noted above, the offshore terminal designs could not provide LNG for use as a vehicle fuel, which is an objective of the Long Beach LNG Import Project. Once LNG is vaporized, it does not appear practical to re-liquefy the product onshore in southern California. This is because the re-liquefaction process is energy intensive and is generally only done on a large scale when there is a relatively inexpensive source of natural gas. In addition to the cost and energy expenditure associated with liquefying natural gas, the impact of constructing a liquefaction facility and the air emissions associated with operating such a facility would have to be considered." (P. 3-15.)

The above-quoted citation and numerous other references in the EIS/EIR to LNG vehicle fuel conclude that only the POLB project can supply LNG for vehicle fuel. This is simply incorrect, and the EIS/EIR should remove these references.

First, and foremost, vehicle fuel LNG is a function of natural gas supply, not storage. The more natural gas supplied to the State of California, the more natural gas that would be available to create vehicle fuel LNG.

Second, the suggestion that the POLB project is the only potential supply of vehicle fuel LNG is directly contradicted by the text of the EIS/EIR. To begin, the EIS/EIR correctly identifies the existing source of vehicle fuel LNG in California. (See Section 3.2.2.1.) Therefore, there is an existing LNG supply chain in California. That existing supply chain would benefit from the increase in natural gas supply because more abundant natural gas supplies would lead to more natural gas being available at a lower price. In short, LNG from both offshore and onshore projects would be the new supply of natural gas that will be the "inexpensive source of natural gas" that the quoted language above recognizes as an essential element to LNG vehicle fuel.

The EIS/EIR also expressly recognizes that more liquefaction facilities are planned for California and, of greater significance, that more natural gas supply would create more supply for LNG vehicle fuel:

> Currently, at least seven onshore natural gas liquefaction facilities are being planned or proposed in California. Because each of these facilities would be *limited by the availability of a consistent and relatively inexpensive source of natural gas that could be converted to LNG* as well as by other economic factors, it is difficult to determine which facilities will ultimately be built. (P. 3-11.)

Thus, the EIS/EIR correctly recognizes that it is natural gas supply (not LNG) that is a limiting factor for California LNG vehicle fuel. The Crystal Clearwater Port would bring a natural gas supply. Similarly, the EIS/EIR should take notice of the numerous small LNG liquefaction facilities that are more prevalent in the Eastern United States (referenced at p. 4-186) as further evidence that small-scale liquefaction facilities are feasible, even in a supply constrained heating fuel market like the Eastern United States. Accordingly, the EIS/EIR should be revised to delete the suggestion that only the POLB can bring the natural gas supplies necessary for LNG vehicle fuel.

The EIS/EIR suggests that other sources of vehicle fuel LNG could result in significant environmental impacts such as the "likely increase the risks of LNG truck accidents, highway congestion, and air pollution from tanker truck emissions." (P. 3-7.) However, the EIS/EIR does

not contain a detailed analysis of these and other potential environmental effects associated with the basic project objective of supplying additional LNG vehicle fuel. The EIS/EIR should be revised to analyze these and other possible environmental effect on the LNG vehicle fuel project components.

Similarly, the EIS/EIR suggest an "average" of 16 LNG truck trips per day: "The trailer truck facility would consist of a 3,800 cubic meter (23,901 barrels) full containment storage tank and two trailer truck loading bays. SES anticipates that an average of 16 trailer trucks would be loaded per day to transport LNG to LNG vehicle fueling stations throughout southern California." (P. 2-7.) The EIS/EIR should be revised to include the methodology for estimating 16 trucks per day, including the increase in this number as the LNG vehicle market develops over time. (The EIS/EIR notes that this market may grow to 195,000 gpd by mid 2006 (Powars and Pope, 2002), which equates to 19.5 trailer loads per day.) Further a discussion of the potential environmental impacts of an average of the total incremental trailer trucks per day should be included. The analysis should include a description of the impacts and mitigation measures proposed for all of the environmental disciplines studies in Section 4 of the EIS/EIR, including, but not limited to the traffic impacts of such vehicle trips, the air quality impacts, and all other Section 4 environmental disciplines examined, not just the EIS/EIR's Air Quality and Traffic analyses.

Further, the EIS/EIR identifies an "average" of 16 vehicle trips per day, not "maximum" or "peak" number of vehicle trips. Consistent with NEPA and CEQA's clear requirements that the maximum potential environmental impacts, not the "average" impacts, should be analyzed,, the EIS/EIR should be clearly articulate the potential impacts associated with such vehicle trips on a "maximum" or "peak" impact basis.

The EIS/EIR should also be revised to explain how the proposed LNG vehicle fuel operations will be affected by the delivery of high BTU content (or "hot") LNG that must first be processed at the POLB's NGL processing plant. Specifically, the EIS/EIR should add a description of how the LNG vehicle fuels process will integrate into the NLG processing facility when high BTU content LNG is delivered at the POLB.

<u>Comparative Environmental Issues for Onshore v. Offshore LNG Facilities, P. 3-15.</u>

The EIS/EIR states, "It has been suggested that an onshore terminal would present more visual effects, land use conflicts, risks to public safety, biological impacts, and air quality issues when compared to an off shore terminal. However, these generalizations cannot be accurately applied to all LNG projects. The Long Beach LNG Import Project would be located in a previously developed industrial area associated with the POLB where it would not change the existing industrial land use of the site or significantly alter the visual character of the area. In comparison, the Cabrillo Port LNG Deepwater Port would involve permanent facilities that would change the visual character of the offshore view, both during the day and at night. While the evaluation of aesthetics is necessarily subjective, the presence of this deepwater port terminal

could have a significant negative impact on the experience of recreational boaters, tourists, and coastal residents who view the offshore environment from land."

The EIS/EIR listed several important environmental issues and compares them to POLB to the Cabrillo Port project; however, the EIS/EIR fails to compare the proposed project to the Crystal Clearwater Port. The EIS/EIR should be revised to include a comparison of the proposed project the Clearwater Port for each of these issues.

First, it is well-settled law in both NEPA and CEQA statute and case law that the proposed project's potential environmental impacts must be compared to the existing "baseline," i.e., the existing environmental setting. In the case of the Crystal Clearwater Port, the baseline, existing environmental setting includes the existing Platform Grace as well as the existing, well-documented offshore pipeline corridor. Because Platform Grace and the offshore pipeline corridor are existing project features, they are part of the existing environmental setting, and thus part of the NEPA/CEQA baseline.

Turning to the environmental issues listed in the EIS/EIR statement quoted above, comparing the proposed project to the Clearwater Port Project for "visual effects," Platform Grace is an existing facility. Platform Grace is within the existing visual setting baseline. Thus the EIS/EIR should be revised to reflect that Clearwater Port completely avoids the potential visual impacts of the proposed project.

In addition, in several places, the EIS/EIR describes a "security barrier wall" that is twenty (20) feet surrounding the LNG tanks. (*Passim*; see, for example, pages 2-1. 2-29, and 4-11.) It is not clear whether the visual impacts analysis for the project takes into account this twenty foot high barrier wall in its analysis from the key observation points identified in the EIS/EIR. In fact, the word "barrier" does not occur in the text of Section 4.5 dealing with Visual Resources. In contrast, the tanks themselves are described having a "permanent impact on visual resources": "In particular, as figures 4.5.6-2 through 4.5.6-5 show, the tanks would be tall in relation to the surrounding structures." (P. 4-57.) The EIS/EIR should clarify whether the barrier wall was considered along with the tall tanks as part of the project's Visual Resources analysis.

As for potential "land use conflicts," Clearwater Port does not have the potential to interfere with or conflict with surrounding land uses. Further, any potential impacts on surrounding ocean uses are already part of the environmental baseline for the existing Platform Grace and thus there will be no new potential effects associated with the Clearwater Port.

With regards to public safety, Platform Grace is located approximately 12 miles offshore, far away from any population centers, including any environmental justice populations. Of course, worker safety and protection are first and foremost to Crystal, thus the emphasis on safety and protective systems in the project's design. The statement about worker health and safety being a larger risk offshore at P. 3-17 is pure speculation and should be deleted. In fact,

compared to the proposed POLB project, the Clearwater Port completely avoids public safety risk by avoiding being located near the public.[3]

As for potential biological impacts, again, Platform Grace is in the existing NEPA/CEQA baseline. Any construction related impacts will be temporary and thus insignificant with the mitigation measures proposed by Crystal. Moreover, Crystal will use the existing pipeline corridor from Platform Grace to shore. Due to the initial and continuing environmental review and analysis associated with this already developed offshore pipeline corridor, the Clearwater Port will be able to avoid any potential significant impacts as construction related work occurs in this well-studied and well-documented, existing corridor. Accordingly, the potential construction impacts will be temporary and insignificant. The discussion of potential effects of an offshore terminal and pipeline on page 3-17 should be revised to distinguish between Crystal, which is an existing facility in the environmental baseline, and the potential impacts of a new facility.

Finally, the EIS/EIR correctly notes that the California Coastal Act values reuse of existing industrial facilities in the Coastal Zone. (See pages 5-1 through 5-5.) Thus, in comparing alternative, the EIS/EIR should note that the Clearwater Port will also make use of existing facilities, Platform Grace and the existing offshore pipeline right of way.

Air Quality Impacts, P. 3-15, 3-16, *passim*.

As noted throughout the EIS/EIR, the direct and cumulative air quality impacts of the POLB are significant, unmitigated, and unavoidable. (See, for example, pages ES-12, 3-17, and Section 4.9, PP. 4-93 through 4-123.) The EIS/EIR should be revised to reflect the fact that Crystal Clearwater Port completely avoids these significant, unmitigated direct and cumulative impacts.

The United States Environmental Protection Agency Region IX (EPA) concluded in a letter to the United States Coast Guard dated June 29, 2005 that air emission offsets are not required for the proposed BHP Billiton Cabrillo Port. This conclusion was reached after analysis of Ventura County Air Pollution Control District (corresponding onshore District) rules which contain two different requirements for sources constructed on or near the shore and one for sources constructed on the Channel Islands. Because the proposed Cabrillo Port is located in an area that falls between these two areas, EPA exercised its discretion to determine which of these two sets of requirements is more applicable. As a result, it was determined that the proposed Cabrillo Port would be permitted in the same manner as sources on the Channel Islands rather than the Ventura County mainland. Because the Channel Islands are an unclassified/attainment area for criteria air pollutants, emission offsets are not required for new stationary sources.

[3] Any potential public safety risk associated with LNG tankers are either less than an onshore project, due to the remote location 12 miles offshore, or similar to those of an onshore facility, if intentional acts associated with LNG vessels are considered.

The proposed Cabrillo Port is located approximately 13.8 statute miles offshore Ventura County and 21.3 statute miles from the Channel Islands (eastern end of Anacapa Island). Comparatively, the proposed Crystal Energy Clearwater Port is located approximately 10.6 statute miles offshore Ventura County and 11.6 statute miles from the Channel Islands (western end of Anacapa Island). The proposed Clearwater Port would be located approximately 9.7 statute miles closer to the Channel Islands than the proposed Cabrillo Port. Thus the Clearwater Port Project is also located within the unclassified/attainment area. The regulatory requirements that apply to the Clearwater Port Project reflect the location of the project in the unclassified/attainment area. The project should therefore be permitted in the same manner as source on the Channel Islands rather than the Ventura County mainland. As EPA is the regulatory agency that will issue Permits to Construct/Operate for both facilities and both are subject to compliance with Ventura County Air Pollution Control District rules, it is reasonable to conclude that the determination not to require offsets for the proposed Cabrillo Port is also applicable to the proposed Clearwater Port Project.

The EIS/EIR should be revised to clearly indicate that both the Crystal Clearwater Port completely avoid these significant, unmitigated direct and cumulative air quality impacts. In addition, the EIS/EIR should be revised to clearly indicate that the Clearwater Port would also avoid the significant, unmitigated direct and indirect impacts on the environmental justice populations affected by the POLB project.

<u>Speculative Air Quality Benefits Do Not Offset Significant, Unmitigated Direct and Cumulative Air Quality Impacts, P. 3-17, and P. 4-207.</u>

After acknowledging the significant direct air quality impacts of the project, the EIS/EIR states, “However, an onshore LNG import terminal could indirectly improve air quality by providing another source of alternative fuel for heavy-duty vehicles, most of which currently run on diesel fuel.” The conjecture that other air quality benefits “could” occur should be deleted as speculation, unsupported by any factual assertions. The air quality impacts remain significant and unmitigated. Both CEQA and NEPA reject the idea that significant, unmitigated impacts can be “offset” or otherwise nullified by purported, unrelated air quality benefit.

Similarly, at page 4-207, after again recognizing the significant, unmitigated air quality impacts, the EIS/EIR again speculates as follows: “In addition, the proposed project would make an alternative cleaner burning fuel (i.e., LNG) more available for distribution locally to fuel LNG-powered vehicles. As a result, there is a potential for air quality benefits associated with the proposed project because LNG-powered vehicles have lower emissions than diesel-powered vehicles.” This “potential” is unidentified and certainly unquantified and thus should be deleted from the EIS/EIR.

The Potential Air Quality Impacts Should Be Presented Without Application of Mitigation, Section 4.9, passim, Table 4.9.5.1.

Both NEPA and CEQA require the reviewing agency to disclose to the public the potential impacts of a project before mitigation measures are imposed. Section 4.9 fails to clearly describe the potential construction and operational air quality impacts before the application of mitigation measures. As one example, Table 4.9.5-1, footnote d, states that the vaporization equipment water heaters emission are set forth after the application of BACT. Thus, the documents do not disclose the potential to emit before the application of mitigation measures. Section 4.9 and Table 4.9.5-1 should be revised to clearly articulate the potential for air quality emission, before the application of mitigation measures such as the offsets required by the SCAQMD and implementation of BACT or other control strategies so that the public can be informed of the full emission profile of the project. In addition, the assumed control efficiencies of mitigation measures should be identified.

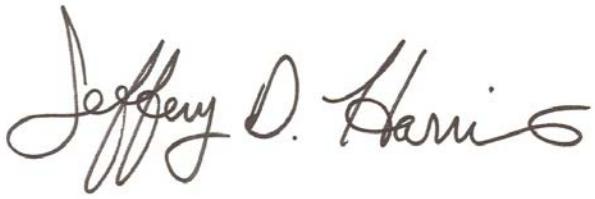
Vaporizer Technologies Not Requiring Combustion, Pages 3-35 to 3-37.

The EIS/EIR dismisses the use of ambient air vaporizers, i.e., vaporizers that do not require combustion, as requiring too much space to be feasible at the POLB. (See, for example, pages, 3-35 through 3-37, page 4-113, and pages 6-3 through 6-4.) Ambient Air Vaporizers ("AAV") require a disengagement area where the cold air created by the air vaporizers can drift off. The EIS/EIR should note that there is a difference regarding such space requirements for onshore versus offshore facilities. Onshore, there usually is not such a disengage zone if the vaporizers sit on level ground, since the cooled air is now more dense that the surrounding air. Thus, the amount of land area required for the cold air to disengage and mix with the atmosphere can be large. In contrast, offshore, cold air can sink from the offshore facility down toward the water, away from the vaporizers, spread out and mix harmlessly with the atmosphere.

CONCLUSIONS

Crystal Energy is pleased to have this opportunity to provide the reviewing agencies with comments on the EIS/EIR. We look forward to reviewing the revised document.

Sincerely,



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