UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OFFICE OF THE
REGIONAL ADMINISTRATOR

September 20, 2004

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

Re: Weaver's Cove LNG Project Draft Environmental Impact Statement, Doc Nos. CP04-36-000 and CP04-41-000, Corps of Engineers File Number 2004-2355, CEQ # 04037, EPA Number FRC-B03011-MA

Dear Secretary Salas:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA), Section 404 of the Clean Water Act, and Section 309 of the Clean Air Act, we have reviewed the Draft Environmental Impact Statement (DEIS) for Weaver's Cove Energy's proposed Liquified Natural Gas (LNG) project in Fall River, Massachusetts.[1]

The DEIS details the Weaver's Cove Energy proposal to construct and operate an LNG terminal including a ship unloading facility, LNG storage tank, vaporization equipment, LNG truck loading stations and ancillary facilities, two new 24-inch diameter natural gas pipelines totaling 6.1 miles in length, and two meter and regulation stations. Construction of the project will require over 3 million cubic yards of sediment to be dredged from the federal navigation channel (and an expanded vessel turning basin) in the Taunton River and Mount Hope Bay. Weaver's Cove Energy proposes to transport the dredged material to the project site where it would be processed and used as fill material on a waterfront brownfield site that was previously in service as a marine petroleum products storage and distribution terminal. The proposed dredging would be conducted over a continuous three year period and would be privately financed by Weaver's Cove Energy.

New England's air quality has benefitted greatly from the increased use of natural gas for electricity generation, and EPA recognizes the need to bring additional natural gas supplies into the New England Region. However, in recent years, the demand for natural gas for electric generation and heating has begun to exceed the capacity of the regional infrastructure to reliably

[1] This letter serves as our comment on the DEIS, the Draft Environmental Impact Report prepared under the Massachusetts Environmental Policy Act, and the Corps of Engineers' public notice for a Rivers and Harbors Act Section 10 permit and Clean Water Act Section 404 permit for the project.

meet that demand. As a result, the natural gas supply and distribution system must be enhanced to meet growing demand for this cleaner fuel and to maintain the environmental benefits gained over the last ten years. A well sited LNG facility that provides a new supply of natural gas to the region in an environmentally responsible manner can make a substantial contribution to maintaining our recent air quality gains and allow New England utility companies to continue to provide heat and electricity to their customers without interruption.

EPA reviewed the proposed project focusing on the direct and indirect impacts attributable to it and with due consideration for other existing sources of impact. The proposed project is located on the Taunton River, part of the greater Mount Hope Bay ecosystem. Due to its expansive shallow clean waters, freshwater input, and vegetated shorelines, Mount Hope Bay has historically been one of the more productive estuaries in the northeast. Unfortunately, due to a number of factors, fish stocks have declined to extremely low abundances, dissolved oxygen levels routinely violate state water quality standards, nuisance species have proliferated, and mass mortality events of fish and shellfish have become routine. In 2004, fish abundances for many species, including winter flounder, that rely on spawning areas in the Taunton River, are at historically low levels.

EPA's past experience with and knowledge of the Taunton River/Mount Hope Bay ecosystem provided knowledge that helped shape our active participation in the Federal Energy Regulatory Commission's (FERC) prefiling process. As a cooperating agency during the preparation of the DEIS we offered detailed scoping comments (August 14, 2003 and January 30, 2004) and commented on an interagency review draft of the Administrative Draft Environmental Impact Statement (ADEIS) (March 5, 2004 and March 22, 2004). In addition to written comments, EPA offered specific input on the scope of the EIS to FERC staff in meetings and by telephone.

Our scoping comments called for a thorough consideration of alternatives, environmental impacts, time of year restrictions for the dredging operations, dredged material disposal, cumulative effects, mitigation, environmental justice, air quality, public participation, and interagency coordination. Our written and verbal comments on the ADEIS specifically requested, among other things, a comparison of offshore LNG alternatives to the Weaver's Cove project and an evaluation of numerous dredging and dredged material disposal issues. EPA and other cooperating agencies strongly advised that the DEIS should embrace techniques that include time of year provisions to protect critical habitat during important periods for fish spawning and migration.

Many of the concerns raised by EPA and other cooperating agencies over the past year about the dredging and disposal program, the scope of alternatives, and the analysis of impacts have not been addressed or afforded serious consideration in the DEIS. The DEIS concludes that the Weaver's Cove project as designed with the applicant's proposed mitigation and FERC's recommended mitigation measures would have limited adverse environmental impact. We do not believe such a conclusion can be reached at this time based on the current analysis. Many of our comments are ones which we have raised numerous times over the past year. The enclosed

additional detailed comments describe staff concerns about impacts to Mount Hope Bay and the Taunton River, the underprediction of impacts from dredging, the alternatives analysis, water quality standards, the Corps of Engineers' Permit process and environmental justice.

My staff is ready to continue to participate on the cooperating agency team to provide additional input, as necessary, to help FERC complete the NEPA analysis for the project. Please feel free to contact me or Timothy Timmermann of the Office of Environmental Review at 617/918-1025 if you wish to discuss these comments further.

Sincerely,

Robert W. Varney
Regional Administrator

Enclosure

cc:

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ADDITIONAL DETAILED COMMENTS

Overview

The proposed project is located on the Taunton River, part of the greater Mount Hope Bay ecosystem. Due to its expansive shallow clean waters, freshwater input, and vegetated shorelines, Mount Hope Bay has historically been one of the more productive estuaries in the northeast. Unfortunately, due to a number of factors, fish stocks have declined to extremely low abundances, dissolved oxygen levels routinely violate state water quality standards, nuisance species have proliferated, and mass mortality events of fish and shellfish have become routine. In 2004, fish abundances for many species, including winter flounder (*Pseudopleuronectes americanus*), American shad (*Alosa sapidissima*), blueback herring (*Alosa aestivalis*), alewife (*Alosa pseudoharengus*), and rainbow smelt (*Osmerus mordax*), all species that rely on spawning areas in the Taunton River, are at historically low levels.

The Taunton River flows into Mount Hope Bay. Despite the problems in Mount Hope Bay, the Taunton River is home to the Commonwealth of Massachusetts' strongest anadromous fish runs. These runs have dramatically declined through time and remain at historically low levels, but they have fared better than runs in other parts of the state. The Taunton River is one of the few sources of fish that are transplanted to other rivers in hopes of restoring other anadromous fish runs in other systems.

Numerous substantial efforts are in place to improve the overall condition of the Mount Hope Bay ecosystem. Both Massachusetts and Rhode Island have instituted aggressive fishery restrictions in the bay, ones that essentially eliminate commercial fishing and severely curtail recreational fishing. The most stringent of these restrictions have now been in place for almost 10 years. In addition, the City of Fall River has begun making improvements to its sewage treatment plant and implementing additional combined sewer overflow controls. The final cost of this effort will be well over $120 million. EPA New England recently reissued a Clean Water Act National Pollutant Discharge Elimination Permit (NPDES) for the Brayton Point Power Station, located just downstream of Fall River at the mouth of the Taunton River, that requires an approximate 95 percent reduction in water withdrawal from and discharge of heat to Mount Hope Bay. EPA New England estimates costs of retrofitting Brayton Point Power Station to achieve these reductions to be approximately $100 million. Additionally, other proposed projects within the Taunton River/Mount Hope Bay complex have been willing to take steps to minimize their respective environmental impacts. For instance, the proponents of the desalinization plant in Dighton have agreed to place fine-mesh screening technology over their intake in order to reduce levels of impingement and entrainment.

Significant efforts are also underway to designate the Taunton River as a Wild and Scenic River. Moreover, over $15 million (in federal and state matching funds) have been spent since 1984 through the Narragansett Bay Estuary Program to enhance knowledge about the bay estuary and to implement activities to protect and restore the estuary and its resources. The Narragansett Bay

estuary, which includes Mount Hope Bay, is a federally designated estuary of national significance under the Clean Water Act's National Estuary Program. In addition, these waters are classified as either SA (i.e., waters that are excellent for fish, shellfish and aquatic life) or SB (i.e., waters with good habitat for fish, shellfish and aquatic life) by both Massachusetts and Rhode Island, and provide nursery and spawning habitat for important fish species such as winter flounder.

Summary of Concerns

- **Project impacts to the resources and habitats of the Mount Hope Bay and Taunton River are significant, avoidable and unsatisfactory.** Impacts from large dredging projects in New England are routinely avoided and reduced/minimized through a combination of time of year restrictions, dredge sequencing, and dredge equipment/practice modifications (environmental buckets, elimination of barge overflow). The current three plus years of continuous dredging proposed by Weaver's Cove avoids any meaningful adoption of most of these significant measures, and takes an approach that allows in-water work throughout the year. As described above, the level of ecological stress and vulnerability of the fisheries habitat in the estuary warrants a more protective approach. The DEIS details the physical impact to approximately 200 acres of benthic habitat as the dredge footprint. Much of this dredging will occur within the lower Taunton River, which has been documented to be an important winter flounder (*Pseudopleuronectes americanus*) spawning and nursery habitat, an area supportive of anadromous fish runs and important shellfish habitat. Impacts to these important habitats would be larger than just the footprint of the dredging as significant quantities of sediments and associated contaminants will be resuspended into the water column and dispersed outside the footprint of the dredging. In addition, the proposed upland disposal will require dewatering of dredged material and discharge of substantial quantities of water (with associated contaminants) back to the river. Furthermore, impacts to these same resources will continue with the operation of the facility. Due to limited clearance, resuspension of bottom sediments generated by prop wash will commonly occur over large stretches of the channel with each passage of the LNG vessels. Finally, as vessels offload their cargo, water with associated fish eggs, larvae and planktonic life will be taken on for ballast. It is estimated that up to 1 billion gallons of water will be taken annually from the Taunton River by these visiting vessels. Thus, additional impacts from routine operations will contribute further to the stress already placed on vulnerable aquatic resources from the proposed dredging activities.

- **The DEIS underpredicts the potential environmental impacts of the dredging as proposed.** The DEIS uses a predictive sediment deposition model to assess potential impacts from dredging to winter flounder spawning habitat outside the dredge footprint (it is assumed that spawning habitat within the footprint will be impacted). We believe that a number of assumptions in the model are not sufficiently conservative, resulting in an underestimation of impact to winter flounder spawning habitat. Additionally, model

runs to date have looked at a fairly narrow range of Taunton River flow conditions, which are critical to calculating how widely dispersed sediment is deposited and the magnitude of impact to winter flounder spawning habitat. The DEIS mentions that water quality criteria exceedances will occur for several heavy metals in the water column, but does not quantify the area or magnitude of these exceedances. Thus, the ecological significance of these potential water quality impacts remains unknown.

Additional concerns about modeling inputs have been highlighted in the past by other agencies, including the National Marine Fisheries Service (NMFS). We urge FERC to seriously consider and incorporate the input from NMFS and the Massachusetts Division of Marine Fisheries regarding marine issues during efforts to develop supplemental information to predict project impacts.

- **The DEIS analysis inappropriately eliminates offshore LNG facility development as a reasonable alternative**. The DEIS concludes that "environmental, economic and technical factors make an offshore LNG terminal impractical as an alternative." This conclusion is inconsistent with the existence of proven offshore technology and recent approval of a similar proposal, the El Paso Energy Bridge for offshore Louisiana, by the US Maritime Administration, in consultation with the US Coast Guard. Furthermore, arguments that this technique for LNG delivery is not feasible for New England are questionable given the announcement that Excelerate Energy L.P. will file an application in late 2004/early 2005 to construct an Energy Bridge system with ships regasifying and offloading LNG ten miles offshore in Massachusetts Bay. Moreover, the potential for significant and avoidable direct and cumulative marine impacts to the Taunton River ecosystem associated with the construction and operation of the Weaver's Cove facility argues for a hard look at an offshore LNG alternative to bring a new natural gas supply to the New England market. A robust analysis of the offshore LNG alternative is required for purposes of NEPA and the Corps of Engineers permit process.

- **Dredging and dewatering operations are likely to violate water quality standards.** The DEIS acknowledges that Mount Hope Bay and the Taunton River are not meeting state water quality standards and are on the Commonwealth of Massachusetts' Clean Water Act Section 303(d) list due to a number of specific causes including pathogens, nutrients and organic enrichment/low dissolved oxygen. Despite this knowledge, the DEIS focuses its analysis of the effect of the project on elevated suspended solids in the water column. Dredging and the discharge of liquid from dewatered dredged material will exacerbate existing water quality problems in Mount Hope Bay and the Taunton River. The project proponent will require a Clean Water Act Section 401 water quality certification to demonstrate that the dredging is protective of Rhode Island and Massachusetts' water quality standards and a Clean Water Act NPDES permit from the EPA for discharge of stormwater and liquid waste from the dewatering activity. Based on our experience with projects involving dredging and dewatering of dredge material, the discharges from the Weaver's Cove project are not likely to meet state water quality

standards in those water bodies which are impaired.

- **The DEIS inappropriately defers substantive questions of environmental impact, alternatives, and mitigation to the Corps of Engineers' permit process**. FERC is obligated under NEPA to fully address this project's impacts and alternatives as well as ways to avoid, minimize, and mitigate adverse impacts. Another underlying intent of the NEPA process is to support informed decision-making by state and federal agencies responsible for permit approvals/project authorizations. Yet, the DEIS leaves large data and analysis gaps for the Corps to fill, which will likely require the Corps to undertake a supplemental EIS (SEIS) before it is able to reach a permit decision. Most importantly, the DEIS provides an incomplete analysis of the impacts of an offshore LNG supply alternative, defers significant discussion of time of year restrictions to protect habitat and resources, and lacks an analysis of the relative impacts of offshore disposal of dredged material.

- **The environmental justice analysis in the DEIS should be expanded.** The analysis concludes that because the proposed project will impact many surrounding communities, including some environmental justice areas of concern, the adverse impacts will not be disproportionately borne by the environmental justice communities alone. We believe that the analysis of disproportionate risks to potentially affected environmental justice areas should extend beyond race/ethnicity and economic data to include the cumulative impacts of the project, (e.g., air emissions during construction and operation) combined with the other environmental and public health impacts caused by other facilities and activities that exist in the area. For example, the analysis should identify sensitive receptors such as children with asthma, and discuss whether the project will create an additional burden to at-risk populations.[2]

Detailed Comments

Alternatives

The DEIS states that FERC did not consider "alternative LNG terminal sites north of the Massachusetts/New Hampshire border or west of New Haven, Connecticut" primarily due to limitations in the existing gas pipeline infrastructure. Although they are outside of the market area described in the DEIS, it is not clear to what degree LNG terminals, some with preliminary approvals, proposed in northern Maine, Nova Scotia, New Brunswick, and Quebec would reduce or eliminate the need for a project in the market area. The DEIS should have specifically addressed the status of these proposals and the degree to which they will provide needed gas to the New England market (consistent with project goals).

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[2]Studies on school-based asthma in Massachusetts are located at www.asthmaregionalcouncil.org.

We consider the absence of a comprehensive examination of the offshore Energy Bridge approach to LNG supply to be a major deficiency of the DEIS that compromises the analysis and does not support informed decision-making (both during the EIS process and in support of other future efforts such as the Corps of Engineers' permit process). As a result, there is not enough information to enable a comparison of the relative impacts of the applicant's proposed project to the offshore LNG Energy Bridge option. This deficiency is especially important in view of the significant adverse impacts associated with the Weaver's Cove proposal. Under NEPA FERC has an obligation to fully explore alternatives that avoid these adverse impacts.

FERC's analysis of alternatives should be supplemented to eliminate existing inadequacies in the discussion of the offshore LNG energy bridge method. This alternative would supply LNG to the region via specially designed LNG vessels capable of connecting to a buoy coupling into an offshore gas pipeline system connected to the existing pipeline infrastructure. Regasification would occur onboard LNG vessels specifically modified to serve the offshore facility. The DEIS presents a number of reasons why FERC believes the analysis of such an alternative would be either difficult or unwarranted. Our response to many of these conclusions is below.

The DEIS correctly notes that prior to the publication of the DEIS, cooperating agencies requested that this EIS include a comprehensive analysis of the offshore Energy Bridge alternative. The DEIS states that it is not possible to "perform a direct environmental and technical comparison" of this alternative (to others) without an actual proposal and the associated environmental reports. We disagree with this premise and believe that FERC has an obligation under NEPA to independently develop a characterization of the impacts of an offshore energy bridge type project. In fact, most EIS's examine alternatives that are conceptualized for purposes of comparison to the applicant's preferred alternatives, and are not limited to examining only alternatives actually proposed by other project proponents. We believe a reasonably sound characterization would be possible using existing data sources, interagency consultation and direct contact with the developers of other offshore Energy Bridge LNG proposals. One project that should be analyzed would be the Excelerate project[3] proposal to use an Energy Bridge approach to tie into the Hubline. In this case, recent information generated through FERC's EIS for the Hubline project in combination with resource agency input about a possible pipeline route to reach the energy bridge buoy should offer a reasonable basis for predicting the impacts of that alternative. The DEIS also explains that no applications have been filed with the DOT or the Coast Guard to construct an offshore LNG energy facility in the New England region. While this is true, it is not clear why the lack of a current filing would be considered a valid reason why the offshore LNG Energy Bridge alternative should not be fully analyzed.

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[3]The Excelerate project is representative of the type of project, an offshore remotely sited LNG Energy Bridge alternative, that warrants full analysis. This is not to suggest that the general location suggested in project briefings for this project off the coast of Massachusetts is the best or only location for an offshore facility, but it is a good starting point for discussions.

We also suggest that the recent USDOT Secretary's decision (dated December 31, 2003, USCG-2003-14294-24) approving the Deepwater Port License Application for the El Paso Energy bridge application in the Gulf of Mexico provides information that should be used to help shape the supplemental analysis of a remote facility. With respect to technology, the decision document states, "The Energy Bridge GOM proposal is a novel use of an existing technology but does not contemplate any significant advances in the state-of-the-art." Questions raised in the DEIS about the reliability of an offshore energy bridge system not being "demonstrated in practice" to provide continuous service in the New England marine environment overlook important information contained in the November 2003 Final Environmental Assessment for the El Paso Energy Bridge prepared by the Coast Guard and MARAD, which states,

The STL buoy system designed by Advanced Production and Loading AS (APL), fully integrated into the EPEBV design, has proven safe and efficient in the harsh North Sea environment. Eighteen similar APL installations have occurred worldwide, with over 1,OOO oil tanker shuttle loadings in the North Sea. The discharge of high pressure (HP) gas (100 bar) through the APL STL buoy is a new application for the STL buoy, but this application is similar to HP gas (300 bar) re-injection at the North Sea through an STL buoy permanently attached to a floating production, storage, and offloading platform.

The STL buoy and mooring system can operate effectively in water depths of approximately 40 m (131 ft) to greater than 150 m (492 ft). At North Sea locations, connections have taken place at a buoy during 5.5 m (18.0 ft) sea states, and loading can be accomplished with sea states at 13 m (42.7ft). For the EPEBVs, El Paso Energy Bridge GOM has established a 5.0 m (16.4 ft) sea state maximum connection and 12.0 m (39.4 ft) sea state maximum discharge (unloading) design criteria. Based on GOM weather data, an EPEBV would be able to connect to the buoy more than 98 percent of the year.

The LNG containment system in the EPEBV would be able to withstand any potential degree of "sloshing" during transportation and unloading as a result of partially loaded tanks. The tanks have been designed to withstand 100-year storms in the GOM and North Atlantic voyage "sloshing" conditions. The integrity of the reinforced insulation boxes, structural reinforcement of the cargo inner hull, and strengthened cargo pump towers have been verified by laboratory testing, and they have been approved by BV and Gas Transport and Technigaz for unrestricted liquid levels when offshore. For maximum ship maneuvering capability, each EPEBV is equipped with two bow thrusters, at 1500 kilowatts (kW) each, and one 2000 kW stem thruster. In addition, each EPEBV is equipped with a maneuvering assistance and positioning system that provides automatic heading and direction of the thrusters and main propulsion; this system controls the EPEBV's position within 10 m (32.8 ft) during buoy retrieval operations.

The DEIS also argues that LNG Regasification vessels are unique to the offshore application and therefore would not "provide access to the New England market for conventional LNG vessels and a variety of LNG sources." This is true, as the specially designed vessels with onboard regasification technology would be specifically designed to support a specific energy bridge type

project. However, one primary goal of the project is to bring more gas into New England–an outcome both alternatives support, albeit in different ways. Moreover, we disagree with the FERC inference in the discussion at page 3-9 that the lack of a filing for an offshore LNG project in New England should be interpreted as a measure of feasibility and economic viability (implying that an offshore project in New England would not have either attribute).

The DEIS states that "capacity on the Hubline pipeline is nearly fully subscribed during the winter season and any LNG volumes would displace conventional gas supplies." EPA has had conversations with Duke Energy and Excelerate Energy regarding the Energy Bridge technology and proposed project for offshore New England. According to both parties, sufficient capacity exists in the Hubline to accommodate the additional natural gas provided by the Energy Bridge project, and that this additional supply would provide a beneficial addition to the regional natural gas system both in terms of supply and pressure support.

While much of the public input into FERC's EIS process has been negative regarding the applicant's proposed alternative, there has been positive interest expressed in more complete investigation of offshore LNG options. Much of this interest is driven by the potential for Energy Bridge technology to be responsive to significant safety and security concerns expressed by citizens of Massachusetts and Rhode Island. Conclusions presented in the DOT decision document for the EL Paso Energy Bridge project state, *"As discussed above, Energy Bridge GOM is generally in the interest of national security by providing diversity in the energy mix. Additionally, locating the import facility in deepwater many miles from shore makes it a more difficult target for unscrupulous persons interested in disrupting our energy infrastructure or using the facility to harm the American public. Finally, neither the Department of Defense nor the Department of State has indicated that this project presents any national security problems."*

The DEIS concludes that the project as proposed and modified through FERC recommendations "would appropriately and reasonably avoid, minimize, or mitigate for environmental impacts resulting from the construction and operation of the proposed project." We disagree and suggest that such a conclusion is not possible without additional analysis which was requested by EPA and other cooperating agencies during scoping and the review of the ADEIS. Therefore it is our conclusion that a SEIS should be prepared to address unsatisfactory project impacts and deficiencies of the DEIS. In particular the SEIS would correct existing shortcomings of the DEIS including the absence of a hard look at an offshore LNG alternative, a dredging proposal with time of year restrictions and other dredging measures to avoid significant impacts to marine habitats/resources, and a comprehensive analysis of offshore dredged material disposal alternatives based on the results of the ongoing Tier III sediment testing protocol. We believe that this additional information, along with the information described in this letter, will be necessary to fully evaluate the environmental acceptability of the project and to support decision-making by FERC and the other federal and state agencies with jurisdiction over the project. Given the extent of new information to be contained in a SEIS, a new Corps of Engineers public notice will likely to be warranted.

Dredging issues

Disposal Alternatives/Options: The DEIS presented only one disposal option for this project and we believe other disposal options and the impacts associated with them should have been explored. The use of ocean disposal would eliminate the time associated with dewatering and would substantially reduce the duration of the dredging. The tradeoff of reduced dredging time should be weighed against the additional benthic impacts. In addition, we continue to have a concern that the applicant may not be able to fit all of the dredged material on site and has not done any work to identify a backup disposal site if one should be required.

Overdredge Calculations: The DEIS presents a one foot overdredge figure for consideration by the cooperating agencies. This overdredge factor is inconsistent with the two foot overdredge factor the Corps of Engineers typically uses in its own contract documents for Corps sponsored dredging projects. We recommend that the project design, associated calculations, and impact projections in the EIS be revised to reflect a two foot overdredge allowance. Not only will this change provide a more realistic representation of the level of control the typical dredge contractor will have over the equipment, it will also allow for realistic planning for disposal of a quantity of dredged material that is likely to substantially exceed current project estimates.

SSFATE Modeling: We have four main concerns with respect to how the SSFATE model was used:

1) The SSFATE model was not run under multiple river flow conditions to assess the range of impacts that may occur throughout the course of the dredging operation. Dilution and dispersion are inversely related, thus higher river flows will result in greater areal dispersion of material resulting in lower quantities of deposition. Lower river flows will result in less areal dispersion and greater deposition. The condition resulting in the greatest quantity of impact to winter flounder spawning is likely to be an intermediate condition, but this will not be known unless a number of conditions are modeled.

2) The model assumes a material loss rate of 0.66%, citing experience from the Boston Harbor dredging project. This correlation is inappropriate for the Weaver's Cove project because the physical characteristics of the dredged material in Mount Hope Bay are different from the material in the Boston Harbor project. For example, the material in Mount Hope Bay is predominantly fine grained silt (85% of the total material to be dredged) while the Boston Harbor project contained substantially less silt and more coarse grained material and as a result a greater loss rate should be used for the Weaver's Cove modeling effort. Based on this difference we suggest that a material loss rate of 2% may be an appropriate estimate for times of the year and locations that may not be affected by strong river flow. This loss estimate should be reviewed for its appropriateness during periods of strong river flow, which may increase the loss rate.

3) As discussed above, we believe the DEIS underestimates the overdredge amount. Therefore, we believe additional model runs need to be done with the volume of dredge material (3.1

million cubic yards) that results from a 2 foot overdredge assumption. By modeling the realistic volume of dredge material, with a more realistic material loss rate under varying river flow conditions, the indirect impacts of the dredging resulting from sediment deposition on winter flounder spawning habitat will be greater than predicted in the DEIS.

4) We believe that future model runs should examine potential impacts to other important resources, such as shellfish and anadromous fish in this area. The outputs of the model should not be limited to predicting impacts to winter flounder. Once the model is rerun, the results should be compared to peer reviewed literature for a wide variety of species in Mount Hope Bay to assess the likely impacts of suspended solids on these organisms.

Techniques to Minimize Dredging Impacts

Time of Year Restrictions/Environmental Buckets/Dredge Sequencing/Scow/Barge Overflow: The Mount Hope Bay/Taunton River complex has experienced a dramatic collapse in fish populations. In 2004, fish abundances for many species, including several that rely on spawning areas in the Taunton River, are at historically low levels. The magnitude of the dredging and disposal proposal, in terms of both the quantity of dredged material and time to conduct the in-water work (at least three years of continuous dredging), raises significant concerns about impacts to sensitive fish (such as winter flounder), shellfish, and the habitat for these species at critical periods for spawning and migration. In addition to the marine and estuarine species that utilize the lower Taunton River as spawning and juvenile habitat, the river is home to one of the most successful and vibrant anadromous fish runs in the Commonwealth of Massachusetts. Numerous species, including alewife, blueback herring, rainbow smelt, American shad, and white perch migrate past the project site en route to or from spawning areas upstream. Time of year windows are a well established technique to minimize impacts to marine resources from dredging. National Marine Fisheries Service (NMFS) and Massachusetts Division of Marine Fisheries (MA DMF) have time of year restrictions for anadromous fish and other aquatic resources. Established time of year operational windows to protect these resources would extend from January 15 to May 31 (winter flounder spawning), March 1 to July 30 (inward migration of anadromous fish), and June 15 to October 31 (outward migration of anadromous fish).

Adhering to these time of year restrictions is the optimal method to avoid impacts. The DEIS mentions the concern of state and federal resource agencies about the winter flounder population in Mount Hope Bay and describes a time of year dredging restriction from January 1 to April 30 as a technique to protect winter flounder spawning. However, the DEIS does not carry this forward in a modified project alternative as we had suggested in our comments on the ADEIS. It has been our experience in New England that if dredging overlaps a portion of these critical resource times it is not normally by design. Instead, it is typically due to delays in construction, or related problems and is subject to agency review and approval on a case-by-case basis. In those instances techniques to minimize impacts are implemented. Thus, the use of a closed environmental dredge bucket has become fairly standard practice for situations where

infringement on dredge windows may occur. The state of the Taunton River and its resources underscores the importance of time of year dredge windows and use of a closed environmental bucket and dredge sequencing to minimize impacts. The closed bucket will result in substantially lower material loss rate and smaller plumes of suspended solids in the water column. Sequencing can be used to avoid certain resources at critical periods, but would allow the dredging to continue. For instance, dredging of the navigational channel in lower Mount Hope Bay can be done during a period that may be critical to anadromous fish movement out of the Taunton River. This area is geographically removed from spawning grounds and poses no river passage issues. The SEIS should fully explore these impact minimization techniques.

EPA recognizes that some material may escape from the scow/barge during the loading process. The DEIS should describe the specific management measures the project proponent should implement to minimize or eliminate this potentially significant source of suspended sediment discharge to project waters. One possible control step could include filling barges only to the 3/4 full mark. This may greatly reduce the quantity of material returning to the water column, but would result in a greater quantity of barge trips needed to finish the project. This and other control measures should be fully explored in the SEIS analysis.

Pipeline Issues

Horizontal Directional Drilling (HDD) vs. Open Cut of Taunton River: In the DEIS, FERC has rejected the option of Horizontal Directional Drilling, which is a standard practice in most pipeline river crossings in New England, and advocates an open cut of the Taunton River bottom. The DEIS sites unsuitable geologic conditions, lack of construction area and project cost as reasons to abandon this technique. It also appears that the decision was based in part on subsurface information taken from another area. We believe that every effort should be made to avoid an open cut of the Taunton River. If the SEIS fully demonstrates that it cannot be avoided, this work should be conducted in accordance with the previously described time of year windows.

Operational issues

Ballast Water/Invasive Species: EPA's comments on the ADEIS articulated a concern about the potential for introduced/invasive species being brought into the Taunton River and Mount Hope Bay by the project's LNG tankers. We were pleased to read in the DEIS that ballast water discharge, a major vector for species introduction, will not be allowed from LNG vessels into Mount Hope Bay and the Taunton River. However, ballast water discharge is not the only vector for introduction of aquatic organisms. Some species can travel on the infrastructure of the vessel or can be discharged from other waste streams. In our opinion, because of its stressed condition, Mount Hope Bay may be particularly vulnerable to colonization by exotic species. This is due primarily to the dramatically depressed native populations of a wide variety of species. We suggest that a simple analysis of the physical environment (salinity, temperature) of the ports of origin be done and a comparison provided between these data with similar data for the lower

Taunton River. If conditions are similar, the potential for impacts is greater. We appreciate that the LNG vessels may originate from a number of locations; however the DEIS did identify a relatively small number of ports of origin. Thus, it would seem to be a simple matter to make this comparison to determine, in a relative sense, if there is any potential for introduction of new species.

Prop Wash/Prop Dredging: Though the dredging on its own would cause temporary impacts to benthic habitat over the three year dredging period, it could also result in long term impacts to fish populations due to loss of year classes. Prop wash degrades benthic habitats on a frequent basis, making what would typically be a temporary habitat impact (dredging) something that is more permanent. The fairly regular resuspension of sediment from the propellers of these tankers will cause a chronic or permanent degradation of the impacted habitats. Although the DEIS does not estimate the spatial area likely impacted by prop wash and sediment resuspension, it acknowledges the loss of 84 acres of quahog habitat. The DEIS proposes to mitigate this loss by funding a one time shellfish seeding program and funding a shellfish harvesting program to relay shellfish from the dredge footprint. The specific details of these mitigation ideas are not articulated in the DEIS--in fact, it is not even clear if the applicant is committing to reseeding with quahogs or another species of shellfish. Additionally, quahogs can be very long-lived (up to 40 years), especially in areas that may not be actively fished. This area of the Taunton River has experienced limited fishing and thus probably has a fairly diverse age structure of quahogs. A one time reseeding effort would certainly not reproduce an equivalent age structure.

Hydrostatic Testing: To minimize impacts to winter flounder from entrainment and impingement, hydrostatic water testing should be done with city water. The use of city water reduces the volume of river water used and accordingly the number of fish, eggs and larvae that are entrained or impinged.

Army Corps of Engineers Permit Process

As noted above, EPA is significantly concerned that the current DEIS, through both its content and specific recommendations provided by FERC, defers substantive discussions of important project issues to the Corps of Engineers' permit process. One underlying intent of the NEPA process is to support informed decision-making by state and federal agencies responsible for permit approvals/project authorizations and to avoid multiple EIS's for a single project. FERC has its own obligation under NEPA to fully address this project's impacts and alternatives as well as ways to avoid, minimize, and mitigate adverse impacts. The discussion of offshore LNG alternatives and the development of a project that fully incorporates time of year restrictions and other techniques to avoid impacts from dredging to resources of the Taunton River are critical issues that FERC and the Corps of Engineers need to address in this EIS and not defer to a later analysis by the Corps of Engineers. Based on the unsatisfactory environmental impacts associated with the current proposal, and the lack of adequate information to support informed decision-making, we believe it is essential that a SEIS be developed and the information it contains concerning alternatives, dredging and disposal options, impacts and water quality,

among others, be made available for public review at the draft stage. The Corps of Engineers and FERC, with the help of the other cooperating agencies, should work closely together to ensure that the SEIS provides the needed information to complete the permit process. Once the SEIS is published, that information should be used to develop a new Section 10/404 public notice for the project.

In addition, we disagree with one characterization in the Corps of Engineers' Public Notice that suggests that the loss of fishery habitat is in some way mitigated by disposal of material on the project site rather than the aquatic environment. This statement is an inappropriate combination of two separate issues. One is the impacts of the dredging itself on organisms and habitat in the Taunton River, and the other is the range of impacts that could come from disposal. In both instances alternatives are available that would result in different impacts. In no way do we view upland disposal as a mitigation measure for impacts to the Taunton River ecosystem from dredging.

Water Quality

The DEIS acknowledges that Mount Hope Bay and the Taunton River are not meeting state water quality standards and are on the Commonwealth of Massachusetts Clean Water Act 303(d) list (a list of water bodies not meeting state water quality standards) due to a number of specific causes including pathogens, nutrients and organic enrichment/low dissolved oxygen. Despite this knowledge, the DEIS focuses its analysis of the effect of the project on elevated suspended solids in the water column. We expect that dredging and the discharge of liquid from dewatered dredged material will exacerbate existing water quality problems in Mount Hope Bay and the Taunton River. Recent limited dredging in Weymouth, Massachusetts, for the Algonquin natural gas pipeline project resulted in elevated concentrations of fecal coliform downstream of the dredging, which resulted in the closure of shellfish beds. Dredging in Boston Harbor resulted in elevated concentrations of nitrogen within the water column. Dissolved oxygen concentrations in and around the active dredging were slightly depressed as well.

The project proponent will need to obtain a Clean Water Act Section 401 certifications from Massachusetts and Rhode Island that the dredging is protective of state water quality standards and it will need a Clean Water Act Section 402 NPDES permit for discharge of stormwater from the site and for discharge of the liquid waste from the dewatering activity. Based on our experience with dredging and dewatering of dredged material, the discharges are not likely to meet state water quality standards in those water bodies, which are currently impaired.

The DEIS states that, based on elutriate testing, both copper and zinc would exceed EPA-published acute and chronic exposure-based screening criteria. The DEIS does not, however, predict the area of exceedance, magnitude of the exceedance and/or duration of exceedance. Additionally, low dissolved oxygen can work synergistically with toxics (such as copper and zinc) to lower the concentration needed to elicit a response (Rand and Petrocelli, 1985). The DEIS should consider the synergistic effects of these exceedances in conjunction with measured

low dissolved oxygen concentrations and/or reduced dissolved oxygen concentrations as a result of the dredging.

The DEIS attempts to assess the impact of resuspending toxics found in the sediments into the water column. This modeling analysis used the *average* (50th percentile) sediment concentration of various inorganic and organic pollutants. This approach greatly underestimates the potential for impacts. A more reasonable approach would have been to use the 95th percentile sediment concentrations. If sediment concentrations are as evenly distributed as the applicant states, this change in analysis should produce little change in the final outcome of the analysis. We recommend that the analysis be redone with the 95th percentile sediment concentrations. This change in approach should also be applied to the analysis done to predict the impacts of toxics in the sediment to benthic organisms. The DEIS currently uses average sediment concentrations, but should use a 95th percentile concentration.

Cumulative Impacts

The DEIS does a reasonable job of presenting other projects in proximity to the proposed location and discussing some of the impacts associated with these projects. Unfortunately, the DEIS then uses these other projects strictly for comparative purposes. The DEIS characterizes the impacts of the Weaver's Cove project proposal by stating that they are small compared to other nearby activities for the overall condition of the Taunton River and Mount Hope Bay. A cumulative impact analysis consistent with CEQ's NEPA regulations would examine how past, present and reasonably foreseeable future activities in the project area would affect resources in a specific geographic area, taking into account the amount of aggregate stress on the resources of that area from all of those activities. A specific example from this DEIS is the issue of entrainment and impingement of winter flounder eggs, larvae, juveniles and adults. The DEIS lists a number of sources of water withdrawal in Mount Hope Bay and the lower Taunton River that when combined have a cumulative effect on this resource. The DEIS argues that the impact from this project on that issue is minor. The reader is left with the suggestion that the incremental impact due to entrainment and impingement from this project is trivial. We disagree. Based on the current condition of fish populations, each new source of stress is significant. Moreover, entrainment and impingement are not the only sources of impact to winter flounder from this project. As discussed above, the dredging will substantially impact winter flounder spawning habitat. The incremental impact to the winter flounder population in this area, which is stressed by a variety of sources, was not calculated or even discussed.

Wetland Impacts and Mitigation

Weaver's Cove Energy is developing a conceptual compensatory wetland mitigation plan that proposes to enhance the Flag Series 1 wetland to create salt marsh out of a *Phragmites* dominated wetland. This concept may have merit; however EPA will require additional information to fully evaluate the concept, including elevations and species information.

The DEIS does not contain a plan to compensate for permanent fill of the intertidal habitat or subtidal habitat as a result of project construction. This deficiency should be corrected and some form of compensatory mitigation should be provided for this permanent fill. EPA believes that off-site mitigation would be sensible, since on-site mitigation opportunities appear limited.

Mitigation measures are identified on page 4-64 for the impacts to wetlands and waterbodies (separate from the Taunton River crossing) associated with construction of the pipelines. With the inclusion of these mitigation measures, the proposed wetland alterations would appear to comply with the requirements of Section 230.10(a) and (d) of the 404(b)(1) Guidelines.

Air Quality

Construction Mitigation: With respect to mitigation of construction impacts, we commend the steps that Weaver's Cove Energy will take to control fugitive dust during construction. These measures include applying water to roads, using gravel drives and wheel washing stations.

The DEIS predicts that construction equipment emissions will be relatively low based on projected emissions for the region. While this may be the case for the NO_x and CO emissions from the project's construction, fine particle emissions will also be emitted as a result of any construction at this site. Fine particle emissions are a serious public health problem, especially in the area immediately adjacent to where they are released and can cause lung damage and even premature death. In addition, EPA has characterized diesel exhaust as a likely carcinogen.

Given the public health concerns about diesel exhaust, EPA strongly recommends that measures be implemented to reduce fine particle emissions associated with the construction and operation of this facility. We therefore support recommendations in the DEIS that Weaver's Cove Energy should use cleaner diesel (transportation grade diesel fuel containing less than 0.05 weight percent sulfur). Moreover, as we previously stated in our comments on the ADEIS, we continue to strongly recommend that construction vehicles associated with this project be equipped with diesel oxidation catalysts to reduce fine particle emissions. Specifically, Weaver's Cove Energy should use contract language similar to that used by the Connecticut Department of Transportation (ConnDOT) on the I-95 New Haven Harbor Crossing Corridor Improvement Program in New Haven.

ConnDOT requires diesel-powered construction equipment with engine horsepower (Hp) ratings of 60 Hp or above and assigned to the project for more than 30 days to have emission control devices (such as oxidation catalysts) and/or use clean fuels (such as PuriNOx). In addition, vehicle idling is generally limited to three minutes for delivery and dump trucks and other diesel-powered equipment. EPA is willing to assist Weaver's Cove Energy in developing and implementing these requirements.

Lastly, we recommend that these same emission controls (i.e., lower sulfur diesel and diesel oxidation catalysts) be applied to the diesel equipment associated with the dredging operations

necessary for the project.

Marine Vessel Emissions: The DEIS mentions that ships will deliver LNG to the proposed terminal approximately 50 - 70 times per year. This is an average of more than one delivery per week. These delivery vessels may emit large amounts of fine particle pollution in the Fall River area, as well as in other communities in Narragansett Bay. Recent studies of the air emissions produced by some of the larger ports in the U.S. indicate that the combined emissions from the vessels, cargo handling equipment, and transport vehicles associated with port operations can equal or exceed the air emissions from a mid-sized power plant or petroleum refinery. Although the scale of the proposed development at Weaver's Cove will not make this one of America's largest ports, the air impacts from the port will not be inconsequential and merit exploration of mitigation strategies.

EPA strongly suggests that FERC develop strategies to reduce emissions from the LNG delivery vessels and other marine engines (e.g., tug boats) associated with the operation of this proposed facility. Specifically, EPA suggests that FERC evaluate in the SEIS:

- the feasibility of limiting delivery vessels to significantly cleaner fuels (e.g., lower sulfur fuels and/or natural gas) when in transit close to land. We understand that LNG carriers are powered with steam turbines that can be fed from boilers fired by "boil-off" gas, as well as with heavy fuel oil. Since the international sulfur limit for fuel oil used in ships is 45,000 ppm, this fuel oil can emit large amounts of particle pollution when used. Using cleaner fuels during local transit would help reduce community exposure to particle emissions from the ships.

- providing electric power for ships berthed at the shipping terminal so the ships will not have to run their boilers or diesel engines while docked. This practice is already a reality in other regions of the country. For example, the California Air Resources Board (CARB) and the Port of Los Angeles are pursuing voluntary electrification of dock equipment to reduce emissions. And, in Juneau, Alaska, as a result of an enforcement action, Princess Cruises installed a "plug in" facility for shore power to minimize idling time at the dock.

- the potential air quality benefit of reducing the speed of ships coming into port. CARB and the Port of Los Angeles are also exploring this strategy to reduce port emissions.

- the feasibility of retrofitting harbor craft such as tug-boats with engine retrofits designed to emit less pollution. New vessels purchased to support the LNG facility should be required to feature these retrofits.

Required Approvals under the Clean Air Act: The DEIS notes that the Weaver's Cove Energy facility will require a non-major Plan Approval from the Massachusetts Department of Environmental Protection (DEP). However, it appears the proposed project is also subject to the DEP's SIP-approved nonattainment New Source Review (NSR) Regulations at 310 CMR 7.00: Appendix A. The DEP's NSR regulations apply to any new facility with VOC or NOx emissions equal to or greater than 50 tpy. The NSR regulation's definition of facility includes all land-based emission units such as the new heaters and emergency generators. In addition, the regulation also states that "any marine vessel is part of a facility while docked at the facility." Therefore, for determining if the DEP's NSR regulations apply, Weaver's Cove Energy should include the emissions from the heaters, fire pumps and emergency generators and emissions from all marine vessels (i.e., LNG tankers and tugs) that occur while these vessels are docked at the LNG facility. EPA notes that if the marine vessel emission estimates from the EIS report are included, the LNG facility's total projected NOx emissions increase would be 74.9 tpy and subject to the DEP's nonattainment NSR regulations.

In addition, EPA New England currently administers the Prevention of Significant Deterioration (PSD) program in Massachusetts. Weaver's Cove Energy should consult with EPA to determine if the PSD program applies to the proposed facility. If the PSD program does apply, Weaver's Cove Energy will need to obtain a PSD permit before construction of the facility can commence. Brendan McCahill of EPA New England's Air Permits Program is the best person to contact to discuss the PSD program. He can be reached at 617-918-1652.

General Conformity: The Weaver's Cove LNG Project is located within the Boston-Worcester-Lawrence Eastern Massachusetts and Southern New Hampshire area which has been designated as being in serious non-attainment for the one hour ozone national ambient air quality standard (NAAQS) under the Clean Air Act. Recently the project area was also designated as being in moderate non-attainment for the new eight-hour ozone standard through an EPA final rulemaking action published April 30, 2004 in the Federal Register (69 FR 23857).

Under the General Conformity requirements of the Clean Air Act, a federal action in an air quality non-attainment or maintenance area must conform to the state implementation plan (SIP) for the attainment and maintenance of the national ambient air quality standards (NAAQS). The purpose of the conformity requirement is to (1) ensure that Federal activities do not interfere with the budgets in the SIPs; (2) ensure that actions do not cause or contribute to new violations, and (3) ensure attainment and maintenance of the NAAQS.

Two options are available for the Weaver's Cove LNG Project to satisfy General Conformity.

> Option One – Is to satisfy the General Conformity requirements for the one-hour ozone NAAQS, and then use the one-hour General Conformity determination to satisfy future general conformity evaluations with respect to the eight-hour general conformity determination. The General Conformity applicability thresholds for projects in a serious one-hour ozone non-attainment area are a combination of direct and indirect emissions of

either volatile organic compounds (VOCs) of 50 tons per year, or nitrogen oxides (NO_x) emissions of 50 tons per year. In addition, if the project's total of direct and indirect emissions of NO_x or VOC represents 10 percent or more of a non-attainment area's total emission for that pollutant, the action is defined as a regionally significant action and triggers General Conformity.

Option Two - Available if a General Conformity determination is not required to be in place prior to June 15, 2005. On or after June 15, 2005 (when the conformity requirements are in place for eight-hour ozone non-attainment areas, and the one-hour ozone requirements have been revoked), FERC may satisfy the project's General Conformity requirements with respect to the eight-hour ozone standard. The General Conformity applicability thresholds for projects in the Eastern Massachusetts moderate eight-hour ozone non-attainment area are a combination of direct and indirect emissions of either VOCs of 50 tons per year, or NO_x emissions of 100 tons per year. In addition, if the project's total of direct and indirect emissions of NO_x or VOC represents 10 percent or more of a non-attainment area's total emission for that pollutant, the action is defined as a regionally significant action and triggers General Conformity.

According to the DEIS, the Weaver's Cove Energy project is expected to emit a maximum of 74.9 tons per year of NO_x and 14.0 tons per year of VOCs. The projected NOx emissions are shown in the table below:

Total NO_x Emissions for the Weaver's Cove LNG Project	
SOURCE	NO_x EMISSIONS (tons per year)
LNG Trucks (idle)	0.1
LNG Trucks (driving)	0.1
LNG Ships and Tugs	41.3
Heaters	31.0
Fire Pump	0.3
Emergency Generator	2.1
TOTAL	74.9 tons per year of NO_x

The level of NO_x emissions would trigger General Conformity under the one-hour ozone standard, but not under the eight-hour ozone standard. Once General Conformity is triggered by NO_x emissions, all project NO_x emissions must be offset or otherwise accounted for within the applicable state implementation plan. The current draft General Conformity analysis (Appendix H) does not adequately demonstrate how 74.9 tons of NO_x will be offset under the one-hour ozone standard.

However, given the timing of the proposed project, it is EPA's assumption that Option 2 above is how General Conformity would be satisfied. This should be reflected in Appendix H. If this is not the case, and a General Conformity determination is needed before June 15, 2005, then the additional enforceable measures to offset the project's NO_x emissions must be documented in the General Conformity analysis.

Ongoing Site Remediation

Over the past year, EPA, MA DEP, and others raised concerns about the suitability of the dredged material for disposal on the project site pursuant to MA DEP regulations and policy. The comments were offered to highlight a critical element of analysis that must be performed to fully understand whether the onsite disposal option will be consistent with the Massachusetts Contingency Plan (MCP). The DEIS recognizes the importance of this determination but unfortunately recommends that Weaver's Cove Energy file information with FERC prior to construction to demonstrate that placement of the dredged material on the site is consistent with the Massachusetts Contingency Plan (MCP). We do not support this approach and believe these issues should be discussed during, not after the EIS process. The SEIS should provide enough information to understand whether or not it is reasonable to assume that the majority of the dredged material could be disposed on site.

Rating

For the reasons discussed above, EPA has rated this DEIS as "Environmentally Unsatisfactory-Inadequate Information" (EU-3) in accordance with EPA's national rating system, a description of which is attached to this letter. As we did during the development of the DEIS, we look forward to reviewing responses to the issues highlighted in this letter and attached detailed comments in a supplemental document. While this letter has adversely rated the proposed project as currently formulated, we have, at the same time, tried to emphasize we are eager to coordinate with FERC to complete the NEPA process and identify a reasonable project alternative that is environmentally acceptable. However, if we are unable to resolve our concerns, this matter would be a candidate for referral to the Council on Environmental Quality for resolution.

Summary of Rating Definitions and Follow-up Action

Environmental Impact of the Action

LO--Lack of Objections
The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC--Environmental Concerns
The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO--Environmental Objections
The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU--Environmentally Unsatisfactory
The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1--Adequate
EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2--Insufficient Information
The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3--Inadequate
EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.