UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

OFFICE OF THE
REGIONAL ADMINISTRATOR

January 21, 2005

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

RE: OEP/DG2E/Gas Branch 1; *Draft EIS, KeySpan LNG Facility Upgrade Project, Providence, RI*; Docket Nos. CP04-223-000, CP04-293, and CP04-358-000, FERC/EIS-0173D; CEQ #040553; EPA #FRC-B03012-RI

Dear Secretary Salas:

In accordance with our responsibilities under the National Environmental Policy Act, Section 309 of the Clean Air Act, and Section 404 of the Clean Water Act, we have reviewed the Draft Environmental Impact Statement (DEIS) for the liquified natural gas (LNG) facility upgrade and natural gas pipeline facilities proposed by KeySpan LNG, L.P. and Algonquin Gas Transmission, L.L.C., respectively, in Providence, RI.

According to the DEIS, the proposed facility upgrade would convert the existing KeySpan LNG storage facility to an LNG terminal capable of receiving marine deliveries; increase the facility's existing vaporization capacity from 150 million cubic feet per day (MMcfd) to 525 Mmcfd; augment LNG supplies for truck deliveries to the region's LNG storage facilities to meet peak day needs; and provide up to 375 Mmcfd of new baseload supply of natural gas via Algonquin's existing pipeline system to Rhode Island and the New England region starting in the winter 2005/2006 season. The project includes constructing and operating: a single berth ship unloading facility on the Providence River adjacent to the existing KeySpan LNG facility; two liquid unloading arms and line to the existing LNG storage tank; two vapor return blowers, a vapor arm, and a vapor return line; four boil-off-gas compressors and a boil-off-gas condenser; an LNG pumping system; an indirect fired vaporizer system; operations buildings and ancillary utilities; a 1.44 mile-long natural gas pipeline, most of which would be built within existing city streets; and a meter station with related equipment.

The DEIS identifies two aspects of the project that are advantageous from an environmental perspective: the project would not require dredging, an activity that can pose significant adverse impacts; and the majority of the facilities would be built on about 17.5 acres of industrially zoned land currently leased by KeySpan where the existing LNG plant has been in operation for 30 years. The DEIS also notes that, based on a preliminary FERC staff assessment, the existing

facility does not meet current safety standards, and the upgraded facility will have to be designed and built to meet current standards, thus raising the level of safety over that which now exists.

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. 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 meet that demand. As a result, the natural gas supply and distribution system needs to be enhanced to meet the growing demand 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 in an environmentally responsible manner can be a substantial asset to New England.

Based on our review of the DEIS from the standpoint of EPA's areas of jurisdiction and expertise, we believe that this project will not cause substantial unavoidable adverse impacts to the environment. As discussed in the attachment to this letter, we have identified several concerns about the need for additional mitigation and about the analysis, primarily relating to air quality, ballast water, cumulative impacts, and environmental justice, that should be addressed in the FEIS. In accordance with our national rating system, an description of which is attached, we have rated this EIS "EC-2 – environmental concerns, insufficient information." Please contact Elizabeth Higgins of EPA's Office of Environmental Review (617/918-1051) with any comments or questions.

Sincerely,

Robert W. Varney
Regional Administrator

Attachments

Additional Detailed Comments on DEIS for Keyspan LNG Facility Upgrade Project, Providence, RI

Marine Vessel Emissions:

According to the DEIS, ships would deliver LNG to the terminal approximately 50-60 times per year, an average of more than one a week. These delivery vessels may emit large amounts of fine particle pollution in the Providence 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 Providence will not make this one of the U.S.'s largest ports, the air impacts from the port will not be inconsequential and merit exploration of mitigation strategies.

EPA strongly recommends that FERC and the applicant investigate and adopt, where feasible, strategies to reduce emissions from the LNG delivery vessels and other marine engines (e.g., tug boats) associated with operation of this proposed facility, including:

1. 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. Using cleaner fuels during local transit would help reduce community exposure to particle emissions from the ships.

2. 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.

A discussion of these measures and a commitment to implement those that are determined to be feasible should be included in the FEIS.

General Conformity:

The DEIS identifies carbon monoxide and nitrogen oxides as the two primary pollutants emitted during operation of the LNG terminal (p. 5-10). The City of Providence was redesignated to attainment for carbon monoxide on November 4, 1991. While currently attaining the national ambient air quality standard for carbon monoxide, Providence is a maintenance area for this pollutant. This means that the City must have a "maintenance plan" in place aimed at maintaining their attainment status for a specified period of time. Should carbon monoxide levels exceed air quality standards during this time period, the maintenance plan would be implemented to bring levels back into compliance.

We request that FERC expand its current air emissions data request to KeySpan LNG (identified on pages 4-75 and 4-76 of the DEIS) to have the applicant report direct and indirect carbon

monoxide emissions from the proposed project. This will allow FERC to determine whether a general conformity analysis is required for the project. A general conformity analysis would be required if the direct and indirect emissions equal or exceed the rates identified in the table below:

	VOCs (tons per year)	NOx (tons per year)	CO (tons per year)
Moderate 8-Hour Ozone Nonattainment Area[1]	50	100	NA
Carbon Monoxide Maintenance Area	NA	NA	100

Should general conformity be triggered, we understand that FERC plans to issue the analysis as a separate document before the FEIS is published. In that case, we request that FERC coordinate with EPA New England's Air Quality Unit and the Rhode Island Department of Environmental Management's Office of Air Resources early on regarding the development of the general conformity analysis and the method to satisfy the emission offset/mitigation requirements.

Clean Air Act New Source Review/Prevention of Significant Deterioration :

1. Table 4.11.1-3 shows that the LNG upgrade project would result in an increase of NOx emissions that exceeds 25 tons per year (tpy). The Rhode Island Department of Environmental Management's (DEM) State Implementation Plan-approved nonattainment New Source Review (NSR) regulation applies to a modification of a major stationary source that results in an increase of VOC or NOx emissions that equals or exceeds 25 tpy. EPA understands that the existing LNG storage facility is below the DEM's NSR major stationary source threshold level of 50 tpy for Nox and VOC. Therefore, the 25 tpy threshold level does not apply and the project is not subject to the DEM's NSR regulations. However, to clarify that the DEM's NSR rules do not apply, EPA recommends that the FEIS include emissions information on the existing facility.

2. The DEIS mentions that the project is subject to the state's minor source permit regulations. The FEIS should explain that these rules include the requirement to install Best Available Control Technology.

Construction Mitigation:

We commend the steps that KeySpan and Algonquin will take to control fugitive dust and equipment emissions during construction. These measures include a soil erosion and sedimentation plan, applying water to roads, operating construction equipment on an as-needed basis, and limiting the idling time when equipment is not in use.

---

[1] It is assumed that any general conformity determination would be done after June 15, 2005, the date the 1-hr ozone standard is being revoked. If a general conformity determination is done before June 15, 2005, the applicable threshold for NOx would be 50 tons per year.

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 nitrogen oxide and carbon monoxide 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 where they are released. 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 request that KeySpan use cleaner diesel (transportation grade diesel fuel containing less than 0.05 weight percent sulfur). We also request that construction vehicles associated with this project be equipped with diesel oxidation catalysts to reduce fine particle emissions. Specifically, KeySpan 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 KeySpan in developing and implementing these requirements.

Impacts to Marine Resources:

Entrainment/Impingement: The DEIS identifies the entrainment and impingement of fish, eggs and larvae as an impact associated with the use of ballast water. The DEIS quantifies a total volume of water to be used annually for ballast, but does not estimate the biological impact of this activity. Impingement and entrainment data from Manchester St. Station could be used to estimate relative larval and egg abundance during various months of the year. Entrainment losses could then be estimated based on the quantity of ballast water used. Annual loss totals for eggs and larvae should be presented in the FEIS.

Propeller wash: The DEIS recognizes this as a potential impact and offers as mitigation "slow down" zones, where propeller speeds would be reduced to minimize resuspension of the bottom sediments. Obviously, the details of how big and exactly where these zones would be remain to be worked out with the Coast Guard, and safe navigation must be the top priority. We believe this is a positive way to address the issue of prop wash impacts, and we request that the FEIS present details about how this mitigation concept would be implemented.

Cumulative Impacts:

The DEIS's analysis of cumulative impacts is very limited and should be expanded. With an existing power generating station that uses cooling water nearby, the cumulative impact on fish eggs and larvae due to entrainment from that power station combined with the proposed project should be examined. In addition, the impact of sediment resuspension on fish spawning habitat

combined with entrainment impacts from the existing and proposed project should be examined in the FEIS.

Environmental Justice:

The DEIS does not explore the potential impacts associated with construction and operation of the proposed pipeline on Allens Avenue with respect to the fact that, according to page 4-66, it will be routed through an area with a high concentration of minority and low income residents. Alternative pipeline routes are discussed on page ES-12 and also should be evaluated based on their potential to disproportionately affect minority and low income areas. In addition, we recommend that outreach be conducted within the community to ensure that the residents in the areas of the proposed pipeline routes are informed of the impacts associated with construction and operation of the pipeline.

Alternatives:

In the DEIS's discussion of the project's purpose and in the analysis of alternatives, FERC states that there is a need for expanded natural gas infrastructure in the region, including pipeline capacity, peak shaving facilities, and new sources of LNG. It does not assess how much LNG is needed in the region to meet projected natural gas demand, and how far the KeySpan LNG project would go toward meeting that demand. We recommend that the FEIS contain such an assessment, as well as a discussion of whether the alternatives comparison of KeySpan to the other proposed projects for New England represents an either/or comparison, or whether some combination of the alternatives will be sufficient to meet the region's natural gas needs.

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 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 potential 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 that 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 analysed 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.