FERC/EIS - 0050

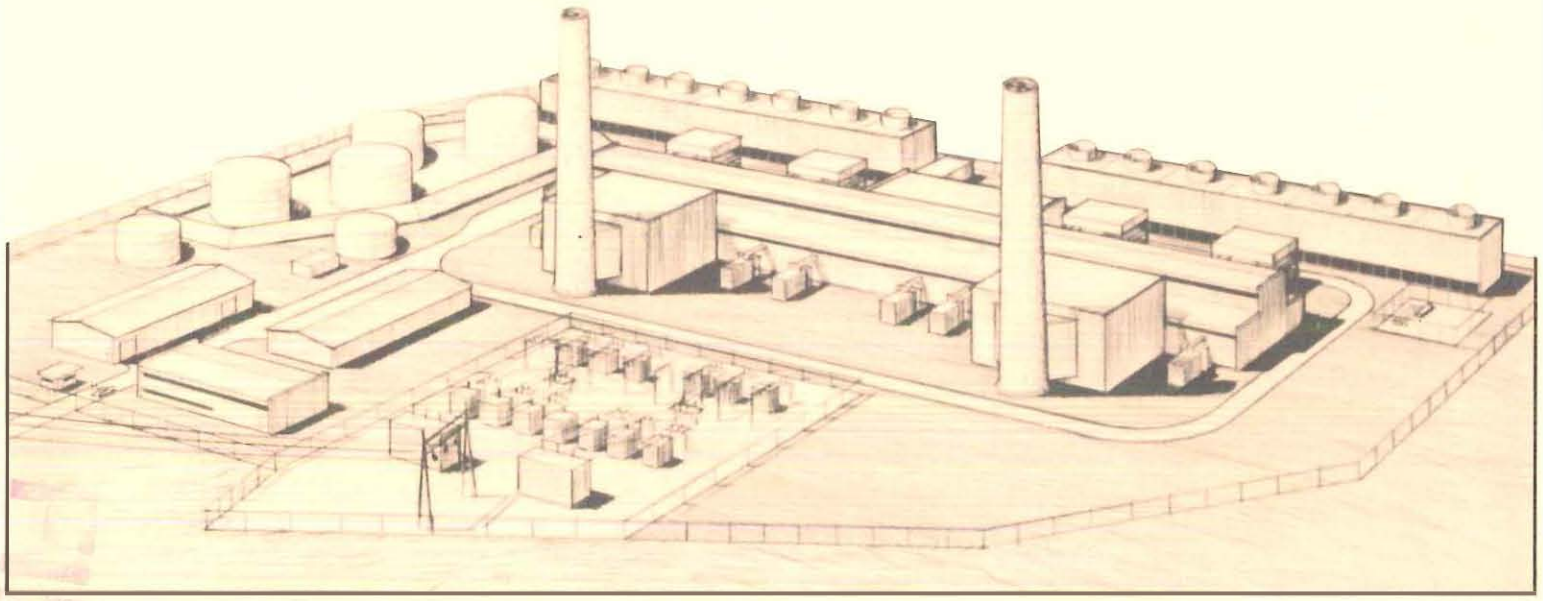
OCEAN STATE POWER PROJECT

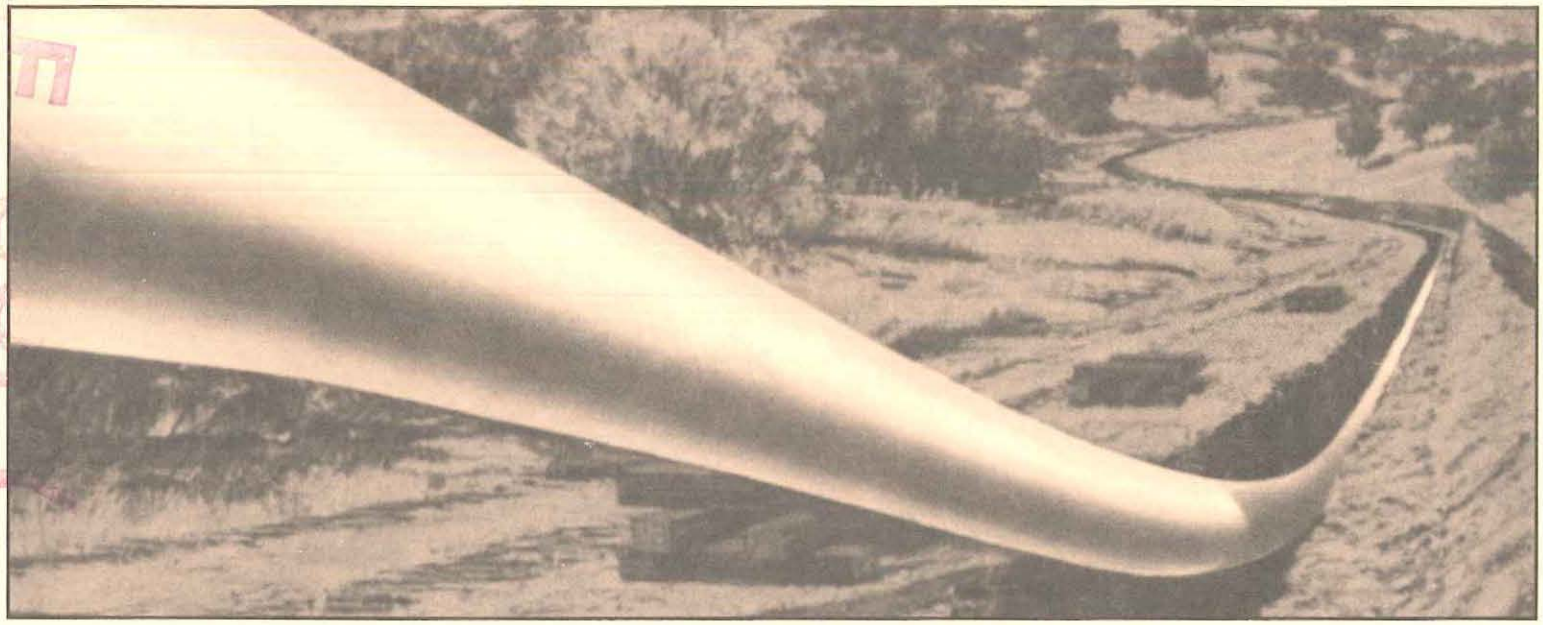
Final Environmental Impact Statement

VOLUME II - Letters and Comments

Ocean State Power
Tennessee Gas Pipeline Company

July 1988





FEDERAL ENERGY REGULATORY COMMISSION
Office of Pipeline and Producer Regulation
Washington, D.C. 20426

Docket Nos. CP87-131-001
CP87-132-001

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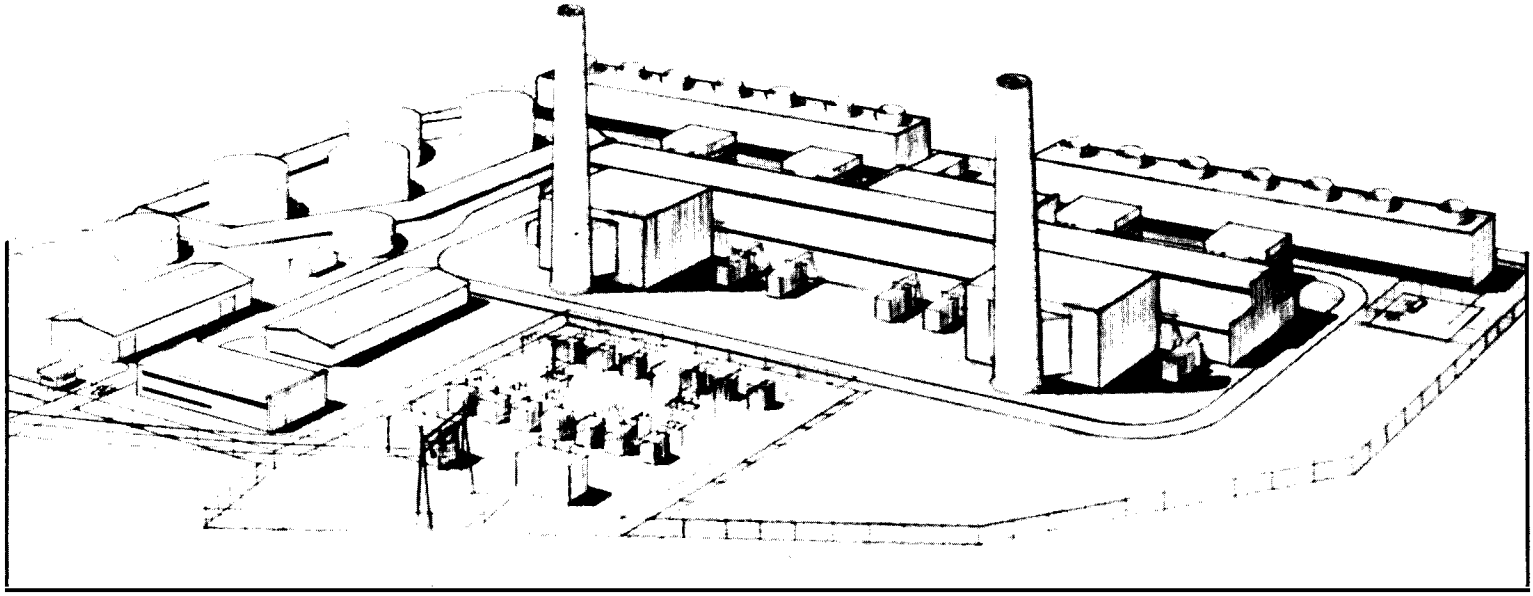

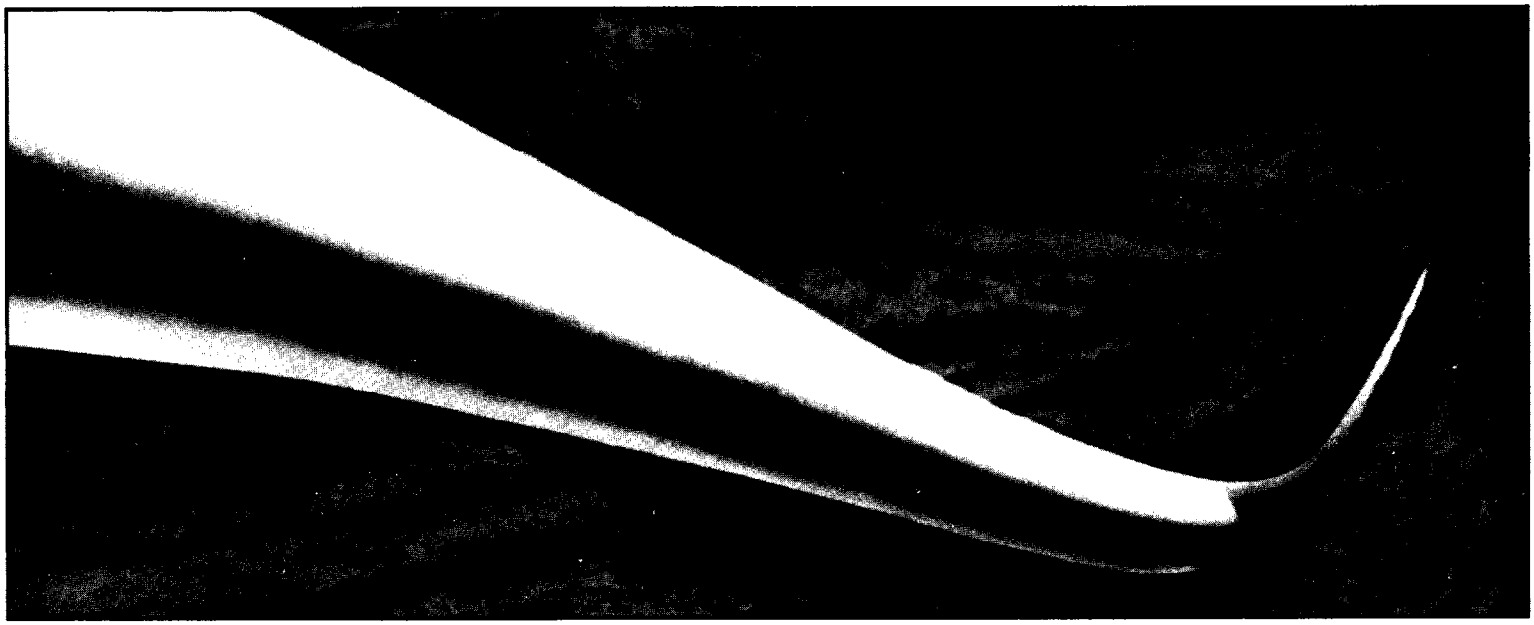

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WRITTEN COMMENTS AND STAFF RESPONSES

FEDERAL AGENCIES

United States Department of Agriculture
Soil Conservation Service
46 Quaker Lane
West Warwick, Rhode Island 02893

March 17, 1988

Mr. Lonnie Lister, Project Manager
Environmental Evaluation Branch
Federal Energy Regulatory Commission
825 North Capital Street, NE, Room 7312
Washington, D.C. 20426

FA1

RE: Ocean State Power Project Draft Environmental Impact Statement

Dear Mr. Lister:

Thank you for the opportunity to comment on the Ocean State Power Project Draft Environmental Impact Statement (DEIS). We reviewed only the Erosion and Sediment Control and Stormwater Management portions of the DEIS.

Erosion and Sediment Control

1. The vegetative practices should include temporary vegetative protection for any excavated area, fill area or stockpile that will be exposed and not disturbed for longer than 60 days. 1

2. The vegetative practices should also include permanent seeding of all disturbed areas as soon as possible after final grading. 2

3. The erosion and sediment control plan should include any land disturbance activities including those at the power plant, along the pipelines and at the intake structure. 3

4. The erosion and sediment control plan should include a schedule for maintenance of all practices included in the plan. 4

5. The DEIS did not provide sufficient information for us to evaluate the specific practices included in the erosion and sediment control plan. Assistance in reviewing the plan is available through the Northern Rhode Island Conservation District, 17A Smith Avenue, Greenville, Rhode Island 02828. 5

W-2

The Soil Conservation Service is an agency of the Department of Agriculture

FA1-1 Erosion and sediment control practices employed will be the responsibility of Ocean State Power (for the plant site, water and oil pipelines, and water intake structure) and Tennessee Gas Pipeline Company (for all gas pipelines). Regarding temporary vegetative protection, OSP indicates in its erosion and sedimentation control plan for the plant that "... all areas to be rough graded during the initial phase of construction shall be seeded..." (Section 8.2.2, Temporary Seeding). Similarly, Tennessee in its sediment and erosion control plan indicates that "temporary erosion control measures such as terraces and temporary seeding may be used until cleanup can proceed and the area can be permanently revegetated" (Cleanup and Revegetation).

FA1-2 OSP states "All areas disturbed by construction will be stabilized with permanent seeding immediately following finish grading" (Section 12.0, Permanent Stabilization). Similarly, Tennessee states "The right-of-way will be limed, fertilized, and seeded. Revegetation will be done in cooperation with the landowner and/or the local Soil Conservation Service office" (Cleanup and Revegetation). Please see also the response to comment GIC10-7.

FA1-3 Please see the response to comment FA1-1.

FA1-4 Regarding a maintenance schedule, OSP indicates "In general all erosion and sediment control measures will be checked weekly and after each significant rainfall." Tennessee does not indicate a specific schedule for maintenance; however, the duration of construction in any one area is typically shorter for pipelines than many other types of construction. Tennessee states in its Objectives that it plans to establish permanent erosion control measures and vegetation as soon as possible and to reseed as necessary to maintain adequate vegetative cover.

FA1-5 OSP and Tennessee will be submitting detailed erosion and sediment control plans for their facilities in Rhode Island to RIDEM. Additional details have been provided in the FEIS, as available. Complete plans for each facility are too voluminous to be incorporated in the FEIS. The offer of review assistance by the Northern Rhode Island Conservation District is noted and appreciated.

Stormwater Management

1. The DEIS did not provide sufficient information for us to evaluate the specific elements of the stormwater management plan. Assistance in reviewing the plan is available through the Northern Rhode Island Conservation District. 6

2. The table on page 4-15 should be corrected. Although the text indicates the values are runoff volumes, the table actually shows rainfall depths. The table should also show the units. 7

Contact Stephen Davis at 401-828-1300 if you have any questions.

Sincerely,

ROBERT J. KLUMPE
State Conservationist

cc:
James Newman, Director, Ecological Sciences Division, SCS, Washington, DC
Victor Bell, Chief, Office of Environmental Coordination, RI DEM, Providence, RI
Willard E. Bascombe, Chairman, Northern Rhode Island Conservation District, Greenville, RI
Irene Winkler, District Conservationist, SCS, Greenville, RI

FA1-6 The Stormwater Management subsection in Section 4.1.2.1.2 contains a summary of the stormwater management plan prepared by the applicant (Bechtel Eastern Power Corporation, February 1987). Specific information concerning the plan can be obtained from that document.

FA1-7 The indicated table includes runoff volumes in acre-feet. The text has been revised accordingly.

Department of Energy
Washington, DC 20585

April 25, 1988

FA2

U.S. DEPARTMENT OF ENERGY

RECEIVED BY
APR 25 1988
Environmental Evaluation
Branch

Ms. Lois D. Cashell
Acting Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, N.E.
Washington, DC 20426

Dear Ms. Cashell:

In reference to Docket No. CP87-132-001:

Enclosed are the Department of Energy's (DOE) comments on the draft environmental impact statement (EIS) dated March, 1988, for the Ocean State Power Project. We have provided page-specific comments on a wide range of issues for your consideration.

As a cooperating agency, our primary interest is to assure that the EIS adequately addresses DOE's involvement in the project as a result of our responsibilities under Section 3 of the Natural Gas Act (NGA) and Section 201 of the Fuel Use Act (FUA). In this regard, the EIS must state that the DOE is a cooperating agency. We also note that Tables 1.3-1 and 1.3-2 still do not include DOE's actions regarding the NGA import license or the FUA exemption. 1

The Draft EIS does not definitely state that Phase II of the Ocean State project will burn natural gas instead of oil, or that the proposed pipeline extension can carry enough gas to supply both phases of the project. The Final EIS must address this issue before the DOE can issue either a NGA natural gas import permit or a FUA exemption for Phase II. 2

If you have any questions regarding our comments, please contact Ellen Russell at 586-9624 or Donald Henninger at 586-4597. We look forward to working with you to complete the NEPA process.

Sincerely,

Raymond P. Berube
Deputy Assistant Secretary
for Environment

Enclosure

cc: Lonnie Lister,
Project Manager

W-4

FA2-1 Staff accepts this comment; please see the revised Section 1.2 and Tables 1.3-1 and 1.3-2 in the FEIS.

FA2-2 Natural gas will be the primary fuel for both phases of the OSP plant, as indicated in Section 1.5 of the DEIS. Fuel oil would be used as a backup fuel. Please see also comment GIC8-68. The proposed 20-inch pipeline from Tennessee's Main Line to the OSP plant will be sized to provide natural gas to both phases of the OSP plant. New gas pipeline facilities, if any, on the remainder of Tennessee's system required to transport gas to the second phase of the OSP plant are expected to consist of additional looping and compression of a magnitude similar to that proposed for the plant's first phase, and have similar projected environmental consequences. The environmental consequences of pipeline looping and compression improvements proposed for the first phase have not been shown to be a significant determinant of the overall environmental acceptability of the project. Thus, looping and compression improvements for the second phase, which will be subject to environmental review by the FERC Staff at the time they are specifically proposed, are not anticipated to jeopardize environmental decisions regarding the project that are made in response to current proposals.

LOCATION	COMMENT		
Executive Summary Page ES-1	The concluding statements in the second and third paragraphs regarding "environmental acceptable" are not appropriate for a DEIS and are best left to the decision process. We recommend they be deleted.	3	FA2-3 Comment noted; however, Staff believes that the wording is appropriate in an EIS context.
Sections 1.4, 1.6 Page 1-3 & 1-17	Facilities proposed under FERC Docket Nos. CP87-131-000 and CP87-132-000, identified on Page 1-3, are not listed on Page 1-17. What are the facilities?	4	FA2-4 Facilities proposed under FERC Docket Nos. CP87-131-000 and CP87-132-000 are included in CP87-131-001 and CP87-132-001, respectively. The Docket Nos. ending in "001" are the first amendments to those ending in "000." All currently proposed facilities are identified on page 1-17 of the DEIS.
Section 2.1.1 Page 2-2, lines 8,9	The unit of energy is not watts per hour, but watthour.	5	FA2-5 Comment accepted; please see revised Section 2.1.1.
Section 2.1.1.3 Page 2-23 3rd paragraph from top	Change PDEIS to DEIS.	6	FA2-6 Comment accepted; please see revised Section 2.1.1.3.
Table 2.1-10 Page 2-43	The total solids add up to 5338 lb/day, not 5440 lb/day as given.	7	FA2-7 Comment accepted; please see revised Table 2.1-10.
Section 2.1.4.1 Page 2-49, line 5	Change "lumins" to lumens.	8	FA2-8 Comment accepted; please see revised Section 2.1.4.1.
Figure 2.1-12 Page 2-81	Sites 7 - 12 are not numbered on the legend.	9	FA2-9 Comment accepted; please see revised Figure 2.1-13.
Section 2.1.5.10 Page 2-94 1st paragraph	It is not clear why only one site in Massachusetts is chosen as an alternative for comparison with the Sherman Farm Road location when there are two sites (Ironstone and Quaker Road) that are ranked higher in Tables 2.1-19 and 2.1-20.	10	FA2-10 The intention, as described on page 2-90 of the DEIS, was to select the best alternative sites for comparison with the Sherman Farm Road site proposed by OSP. The study group included sites in both Massachusetts and Rhode Island; an appropriate comparison would therefore be OSP's proposed Sherman Farm Road site with the top-ranked sites in each state. To include additional, lower-ranked sites in either state would not aid the comparison with OSP's proposed site.
Figures 2.1-13, 2.1-14, and 2.1-15 Pages 2-95 - 2.97	The scales in these figures appear to be identical. The text gives the Sherman Farm Road site an area of 40 acres, Ironstone 310 acres, and Bryant College 50 acres. Yet examination of the figures shows the Sherman Farm Road site to be approximately 1/3 the size of the Ironstone (40 acres vs. 310 acres) and less than 1/2 the size of Bryant College (40 vs 50 acres). Furthermore, the Bryant College site appears to be almost twice the size of the Ironstone locations (50 vs 310 acres). Adjust the figures so they are all the same scale.	11	FA2-11 Figure 2.1-13 in the DEIS, the Sherman Farm Road site vicinity, shows the plant limits as proposed by OSP, a total of approximately 15 acres. The figure has been modified for the FEIS (Figure 1.5-2) to include both the plant area and buffer, a total of about 40 acres, for better comparison with the alternative sites. Figures 2.1-15 and 2.1-17 in the FEIS, respectively the Bryant College and Ironstone site vicinities, show the general areas within which a 40-acre plant and buffer zone could be located.
Section 2.1.6.1.1 Page 2-111 and Table 2.1-23, page 2-112	Utilizing the WWTP effluent is ruled out because of the poor water quality of the effluent. This is pointed out in the table. The data in the table, however, do not present the water quality of the Woonsocket WWTP effluent. Rather, these data are from a 16 year old textbook, and are general values only. Please present actual data for the WWTP.	12	FA2-12 No data on calcium, magnesium, sulfate, silica, or suspended solids are available for the Woonsocket wastewater treatment plant (WWTP).

W-5

LOCATION	COMMENT	
	Specifically, what parameters in the WWTP effluent exceed the requirements of the OSP facility?	13
	The data for the Blackstone River is presented as an average. An average what? Please clarify.	14
	Table 3.1-3 on page 3-15 presents actual data for both the Blackstone river and also for the WWTP effluent. These values are different from those presented in Table 2.1-23. For example, the average suspended solids concentration between 1983 - 1985 at the WWTP was 4.3 m/l, considerably less than the 30 mg/l given in Table 2.1-23, and also lower than the 19 mg/l given for the Blackstone River. This suggests a very suitable water quality for the Woonsocket WWTP effluent. Please address the differences in water quality between the tables.	15
Section 2.1.6.1.1 Page 2-113 1st two paragr	As pointed out by the FERC staff, use of the WWTP effluent would have a positive effect by decreasing the amount of pollutants entering the river. By not building an intake structure, the negative impacts associated with the construction will be eliminated, and no fish loss will occur due to fish and egg impingement and entrainment. Consider these points in evaluating WWTP effluent for cooling.	16
	Please see Chapter 19 (Municipal Wastewater Reuse in Power Plant Cooling Systems) and Ch. 23 (Industrial Reuse of Wastewater: Quantity, Quality, and Cost) in WATER REUSE (1982), E. J. Middlebrooks, editor, Ann Arbor Science Publishers, Inc., Ann Arbor, MI.	
Section 2.1.6.1.3 Page 2-115 to 2-117	It is stated here that a dry cooling system would have a much higher initial cost, requiring an additional $20 million dollars. The data that is presented on page 2-117, however, shows the dry cooling system to be only $4 million dollars more expensive than the proposed cooling system to construct. Please correct apparent discrepancy.	17
Section 2.1.6.1.6 Page 2-120, Last sentence	A significantly greater expense associated with use of the WWTP effluent has not been demonstrated. Please show cost differences. Include costs associated with the intake structure.	18

FA2-13 According to a preliminary study done for OSP, an extensive pretreatment system would be necessary to use the treatment plant effluent for cooling water makeup (Bechtel Eastern Power Corporation, January 1987). Lime would be added in a reactor/clarifier to remove phosphorous and to reduce hardness ions such as calcium and magnesium; this would also remove some biological oxygen demand and coloring matter. Sludge underflow from the clarifier would be pumped to a sludge thickener and vacuum filter for disposal. The clarified effluent would be transferred to a recarbonation chamber, where carbon dioxide gas would be added to reduce the pH, producing additional calcium carbonate sludge. The water would be pumped to a chlorination chamber, in which chlorine would combine with ammonia-nitrogen to form chloramines; organics and color would also be further oxidized. Effluent from the chlorination chamber would be directed through multi-media filters, which would remove suspended and organic materials from the water. The filtered effluent would then be directed to the demineralizer system. In spite of this pretreatment, the water would still contain a high level of dissolved solids, so that it would be limited to three cycles of concentration in the cooling tower.

FA2-14 The data are average concentrations contained in the source document cited in the table (Bechtel Eastern Power Corporation, January 1987). According to this source, the data were summarized from records of the U.S. Geological Survey, Water Resources Division.

FA2-15 Table 3.1-3 contains water quality data from the Blackstone and Branch Rivers. The table does not contain data for Woonsocket WWTP effluent.

FA2-16 The positive aspects of using WWTP effluent for cooling water are noted. Construction effects from building an intake structure would be avoided, as would fish loss from intake effects. However, neither of these effects are anticipated to be so significant at the intake point on the Blackstone River as to cause serious deficiencies in the applicant's proposal. The negative aspects of WWTP effluent use appear to outweigh the positive aspects for this particular application.

FA2-17 Comment accepted; please see the revised Section 2.1.4.3.3.

FA2-18 Comment accepted; please see revised Table 2.1-13.

LOCATION	COMMENT		
Figure 2.2-7 Page 2-140	Change "Section 7" to "Loop 7".	19	FA2-19 Comment accepted; please see revised Figure 2.2-7.
Page 2-156 Figure 2.2-14	"Direction of Work" arrow appears to be reversed.	20	FA2-20 Please see the revised Figure 2.2-14; however, the original "direction of work" arrow shown in the DEIS was correct.
Section 2.2.4.3 Page 2-162	What Class is wetland CA-18? Is this a lower quality or higher quality (for example, in terms of unique habitat) than the Nelson Swamp wetlands?	21	FA2-21 Wetland CA-18 is a State-designated class II wetland of lower quality than Nelson Swamp. Please see revised Section 2.2.4.3.
Section 2.2.4.4 Page 2-164	There is no reference for Tripp, 1987 in Appendix C, Literature Cited.	22	FA2-22 The correct citation for Nathan Tripp's memorandum is NYDEC (1987) and is listed in Appendix C of the FEIS.
Figure 2.2-17 Pages 2-167, 2-168	These two figures should be reversed, with the portion depicting the first half of the RIE preceding the map showing the final destination of the RIE. This is the order in which the various alternatives are discussed. The present order of the figures is the reverse of the text discussion.	23	FA2-23 Comment accepted; please see revised Figure 2.2-20.
Figure 2.2-18 Page 2-172	Two roads depicted in this figure are incompletely identified. Both are named STREET. Please identify these streets with complete names. Both run directly associated with the Seaver Variation (V-5).	24	FA2-24 Comment accepted; please see revised Figure 2.2-22.
Table 2.2-5 Page 2-178	This table lists a single perennial stream crossing for the proposed route. Table 2.2-3, page 2-152, however, lists three perennial stream crossings for Loop 7. Section 3.2.6.2, page 3-87, lists at least seven streams to be crossed by Loop 7; one of these streams is given by a name which does not appear elsewhere in this DEIS. Please clarify these discrepancies.	25	FA2-25 Table 2.2-5 presents only data for the divergence from the proposed route. Page 3-87 discusses several streams, only three of which are perennial. Please see revised Sections 2.2.5.1 and 2.2.5.2.
Section 2.2.5.2 Page 2-179	It is stated that the permanent right-of-way requirement for the Loop 7 alternative would affect approximately 5X as much wetland as the proposed route. Table 2.2-5, page 2-178, however, shows the alternative route to increase the affected wetland from 200 ft to 500 ft, with slightly more than a doubling in the permanent affected acreage. Where is the 5x increase in affected wetland? Please clarify.	26	FA2-26 The proposed route, with existing right-of-way, involves 200 ft x 25 ft = 5,000 ft^2. The alternative route, with new right-of-way, effects 500 ft x 50 ft = 25,000 ft^2, or five times as much area. The increase in width needed for new right-of-way causes the difference, as indicated in Table 2.2-5, footnote "c," of the DEIS.
Section 3.1.2.13 Page 3-14	Show the location of Scituate Reservoir on a map.	27	FA2-27 Comment accepted; please see Figure 3.1-2 in the FEIS.

LOCATION	COMMENT	
Table 3.1-3 Page 3-15	Why are the parameters presented in this table different from those presented in Table 2.1-23, 2-112?	28
	The MADEQE, 1986 reference in the footnote does not appear in the Literature Cited section. Quinn et al. 1986 is also absent from the Literature Cited section.	29
Page 3-16/Table 3.1.4	Change quantity unit "mgpd" to "mgd" for consistency with units used on Page 3-14.	30
Section 3.1.3.1.1 Page 3-36, 3-37	Was an endangered/threatened species search conducted?	31
Section 3.1.5.2.3 Page 3-44 2nd line, 2nd full para	Is "jellyfish" correct?	32
Section 4.1.2.1.2 Page 4-15 Tabular Data	What do these numbers represent? There are no units associated with these values. Please clarify?	33
Section 4.1.3.3 Page 4-22	Has the "baseline" for the area been triggered? The baseline should be discussed in this section with reference to PSD.	34
Section 4.1.3.4 Page 4-24 Table 4.1-8 Page 4-26	The text states that all predicted concentrations are below the ambient standards. However, the data in Table 4.1-8 is partially wrong, and the 1-hour levels of NO2 for both gas- and oil-fired operation are equal to or exceed the NAAQS.	
Section 4.1.3.4 Table 4.1-8 Page 4-26	The Maximum Predicted Concentrations From All Sources in Table 4.1-8 should be the ambient background concentration plus all sources. The given values of the maximum concentration for 1-hour NO2 do not include the Cranston Print Works for either the Gas-Fired or Oil-Fired estimates. When included, gas-fired operation 1-hour NO2 levels exceed the NAAQS. Please address. In addition, the Oil-Fired values of the Maximum Concentration for SO2 are merely the sums of the ambient background concentration and the Cranston Print Works. The SO2 values associated with oil-fired OSP are not included in the calculation of the Maximum Concentration value.	35

W-8

FA2-28 The purposes of the two DEIS tables are different. Table 2.1-23 presents water quality parameters important for determining the suitability of a water source for power plant use. Table 3.1-3 presents water quality parameters related to aquatic toxicology and other environmental issues.

FA2-29 The Massachusects DEQE (1986) and the Quinn, et al. (1986), references are found on DEIS pages C-8 and C-10, respectively.

FA2-30 Comment accepted; please see the revised Table 3.1-4.

FA2-31 Through consultations with the U.S. Fish and Wildlife Service and the Rhode Island Department of Environmental Management (RIDEM), the FERC Staff has determined that no endangered or threatened species would be affected by the proposed action. Staff has thus fulfilled its responsibilities under the Endangered Species Act.

FA2-32 "Jellyfish" has been corrected to "fallfish" in the revised Section 3.1.5.2.3.

FA2-33 The runoff values are reported in acre-feet; this information has been added to the revised Section 4.1.2.1.2.

FA2-34 The baseline for the area has not been triggered. There are no PSD increment consuming sources in the area that would trigger a baseline.

FA2-35 The information presented in Table 4.1-8 of the DEIS is correct. Footnote "c" in the table indicates that the maximum predicted concentrations for both gas- and oil-fired operation were obtained with all sources in the area (i.e., OSP as well as the Cranston Print Works) modeled simultaneously. For the NO_x analysis, the maximum 1-hour impact from the Cranston Print Works and the maximum 1-hour impact of the OSP facility were predicted to occur in two different locations, with no interaction between the two sources. Therefore, the maximum predicted concentration from all sources is the OSP impact plus the ambient background concentration. Staff notes that the 1-hour NO_x standard is a Massachusetts, not a Federal, standard. The same explanation applies to SO_2 concentrations.

LOCATION	COMMENT	
Table 4.1.3.4 Page 4-26	Since July 1987, the PM-10 rules have replaced the TSP standards. Some discussion should explain why TSP predictions are being compared with PM-10 regulations. Why are not PM-10 predictions compared with PM-10 regulations.	36
Section 4.1.3.5.2 Page 4-29	The fogging and icing predictions made here are quite serious. How do we evaluate those impacts? Not much is said about those calculations after they were presented.	37
Section 4.1.3.5.3 Pages 4-30 to 4-32	It is stated that plume water deposition can be expected within 4000 meters of the cooling towers. Examination of Figure 4.1-2 (page 4-31) indicates a much lower distance. Please clarify.	38
	The text states that salts are a component of the drift loss, and the maximum salt deposition was predicted to occur approximately 2.6 km south of the tower. Maximum drift deposition, however, was predicted to occur within 200 meters, not 2.6 km, of the cooling towers. Please explain the differences in the maximum deposition distances.	39
Section 4.1.3.6 Page 4-32	Where is the nearest Class I area?.	40
Section 4.1.5.1.1 Page 4-41 2nd paragraph	The text states that according to the OSP Preliminary Plot Plan (Figure 2.1-5, page 2-31), the 10-acre bog wetland will be outside the fenced plant area. Examination of the figure, however, reveals the southernmost portion of this bog to be within the plant area. Please clarify.	41
Section 4.2.1.4.3 Page 4-70 4th line from bottom	Please explain what is meant by "chemical means" of anchoring the mulch.	42
Section 4.3.3 Page 4-98 3rd paragraph	Combined NOx emissions will exceed NAAQS. Please see comments concerning section 4.1.3.4.	43

W-9

FA2-36 The new 24-hour and annual average PM10 standards are considered to be more stringent than the TSP standards they have replaced. The comparison of the predicted impacts of Particulate Matter (PM) emissions with the PM10 standards is highly conservative, since PM10 emissions would be less than PM emissions. If the PM10 standards can be met based on PM emissions, they can certainly be met based on PM10 emissions. The estimation of PM10 emissions was not made since the TSP impacts were predicted to be insignificant.

FA2-37 The more refined fogging and icing analysis performed using the SACTI model (Section 4.1.3.5.2) has indicated that fogging and icing potential associated with the operation of OSP's proposed wet cooling tower system would be considerably less than originally predicted using the initial screening analysis. The predictions of less than 5 hours per year are not considered serious when compared with naturally occurring fog and icing conditions during the winter months.

FA2-38 Comment accepted; please see revised Section 4.1.3.5.3.

FA2-39 Please see the response to comment FA3-19.

FA2-40 The nearest PSD Class I area is the Lye Brook Wilderness Area, 180 kilometers northwest of the proposed site.

FA2-41 The plant fenced area and bog wetlands boundary referred to in the comment are best compared using Figures 2.1-5 and 3.1-9. The bog wetland is shown outside the plant fenced area, but within the plant leased area. Since preparation of the DEIS, OSP has provided more current grading plans for the plant. Those plans and the potential effects of site grading on wetlands are discussed in the revised Section 4.1.5.1.

FA2-42 Chemical means of anchoring mulch refers to the use of asphalt emulsions or latex based solutions that are sprayed over the mulch materials, usually hay or straw. These serve to retain the mulch in place until the seeds germinate.

FA2-43 Please see the response to comment FA2-35.

LOCATION	COMMENT	
Section 5.1.2	Why does cooling water have to be delivered from the Blackstone River in Rhode Island? The Ironstone site is located within 2 miles of large pools of the Blackstone River in Massachusetts. The cooling water pipeline in the Alternative Site Analysis (Appendix D) extends for 5 miles into Rhode Island. Why was this pipeline not considered to run to the Blackstone River within Massachusetts?	44
Appendix C	The reference for Demaine and Gutherie 1979 has no source associated with it. From where can this reference be obtained?	45
	All the references for Ecology and Environment, Inc. will be difficult to obtain. A company address should be included (at least a city location).	46

FA2-44 The reach of the Blackstone River in Massachusetts has a drainage area of about 265 square miles, or about 64 percent of the river's drainage area at the USGS gaging station in the City of Woonsocket. Assuming that low flows along the river are proportional to drainage area, the 7Q10 flow of the Blackstone River in Massachusetts would be 64 percent of 102 cfs or about 65 cfs. A withdrawal of 4.4 mgd (or 6.8 cfs, the estimated maximum plant requirement) would slightly exceed the screening criterion of 10 percent of the 7Q10 flow. This criterion is not a hard and fast rule, but negative impacts associated with this withdrawal would probably be more severe than those further downstream, would extend upstream of the proposed intake site in Woonsocket, and would negatively impact an additional hydroelectric station (Rolling Dam) located near the Rhode Island state line. Downstream reaches of the Blackstone River have adequate flow to service the plant; thus, the intake for the alternative Ironstone site was sited in Rhode Island, downstream of the confluence of Branch River, to reduce negative impacts.

For the alternative of dry cooling at Ironstone, plant water demand would drop to approximately 0.75 mgd. A water intake on a large pool on the Blackstone River in Massachusetts was evaluated for this alternative.

FA2-45 Comment accepted; please see the entry in the revised Appendix C. The document can be obtained from the Rhode Island Division of Fisheries and Wildlife.

FA2-46 Comment accepted; please see the entry in the revised Appendix C.

United States Department of the Interior

FA3

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APR 21 1988

Branch

APR 19 1988

Mr. Lonnie Lister, Project Manager
Environmental Analysis Branch
Office of Pipeline and Producer Regulation
Room 7312, 825 North Capitol Street, N.E.
Washington, DC 20426

Dear Mr. Lister:

We have reviewed the draft environmental impact statement for the proposed Ocean State Power plant project, Burrillville, Rhode Island as requested. These comments are submitted in accordance with the Fish and Wildlife Coordination Act; 16 U.S.C. 662 et seq. These comments supplement those previously provided to the Economic Regulatory Administration on March 9, 1987 and to the Federal Energy Regulatory Commission on April 15, 1987, June 18, 1987 and September 17, 1987.

Need for Power - The Federal Energy Regulatory Commission (FERC) did not resolve the inconsistencies in power forecasts projected by New England Power Pool (NEPOOL), the New England Governor's Council, and New England Energy Policy Council. This is essential for the alternatives analysis because the New England Energy Policy Council forecasts a reduction in electricity requirements based on energy efficiency, hence no need for additional generation capacity during the period of analysis. However, both NEPOOL and the Governor's Council projected a need for additional generation capacity. The FERC did not attempt to distinguish between traditional desires for more electricity as emulated by NEPOOL and actual needs in the study area in light of the findings provided by New England Energy Policy Council. We believe this should have been accomplished by the FERC as a prerequisite to proceeding with the alternatives analysis. 1

Alternatives

No Action - The no action alternative is based on an assumed need for additional power in the region. This anslysis is almost exclusively contained on one page, page 2-27 of the DEIS. It does not, in our opinion, form the benchmark analysis from which comparisons of all other alternatives can be made as intended by the Council of Environmental Quality (CEQ) Regulations (40 CFR 1502.14 and Question 3, Forty Most Asked Questions Concerning NEPA). 2

Energy Conservation - The analysis for this alternative is contained on about one-half of page 2-49 and is essentially, summarily dismissed as a reasonable alternative. However, when the FERC was examining the need for power in the region, they used the conservation projections made by the New England Energy Policy Council to bound the discussion. We believe these alternative measures should be rigorously explored and objectively evaluated in this DEIS. Energy conservation should not be dropped as a reasonable alternative unless the FERC can demonstrate convincingly that it is unreasonable. For instance, in the absence of additional power supplies, or in the face of dramatic price increases, what actions would New England power suppliers and consumers take to resolve and/or adjust to the situation? 3

W-11

FA3-1 In its analysis of the need for power, the FERC Staff attempted to include analyses by other parties that encompassed a broad range of viewpoints and goals on such issues as energy conservation opportunities, the potential for alternative modes of generation, alternative fuels, and the overall need for power in the study area. Several studies were identified and cited that collectively met the criteria for a diversity of views on need for power; this diversity cannot be fully resolved. At most, the EIS can evaluate the reasonableness of the assumptions used to predict energy requirements and discuss the likelihood that a need for power will exist within the study time frame. The preponderance of studies indicates a need for power in the New England area within the period envisioned for the Ocean State Power Project.

FA3-2 The assessment of the no-action alternative need not be exhaustive to provide a benchmark for comparison with the action alternatives. Staff believes the no-action alternative, as presented in the DEIS, provides that benchmark.

FA3-3 Projections of the demand for electricity, such as those prepared by NEPOOL, incorporate in their analysis a reasonable estimate of the reduction in demand that will occur (or can be encouraged to occur) through energy conservation. The need-for-power study demonstrates that a need will exist above reductions in demand due to energy conservation. Public resistance and cost have been shown to limit the implementability of energy conservation techniques, barring severe power shortages or dramatic price increases.

Alternative Generation - The FERC briefly examines a number of alternative generation modes that are currently being utilized in the region. They conclude that none of these generation modes are superior to the combined-cycle technology chosen by the applicant and, therefore, dismiss all of these in the evaluation of alternative sites. We are unaware of any provision in the CEQ regulations that allows for the FERC to dismiss these reasonable alternatives from further analysis in the EIS. This is critically important because many of these various alternative projects are being proposed in New England, including several in the State of Rhode Island. We have included lists of cogeneration and small power projects being operated, constructed or proposed in Maine and Rhode Island. Similar lists are available for the remaining New England states. Thus, it is apparent from these lists that many reasonable generation modes are available at a multitude of sites in New England. Hence, the FERC alternatives analysis is not adequate. 4

Alternative Sites - The FERC analysis of alternative sites was limited to those suitable for a combined-cycle project as proposed by the applicant. Alternative generation modes were excluded from the siting analysis. We do not believe that the FERC has a legitimate basis for this action.

With respect to the site suitability factors listed on pages D-8 and D-9, we are concerned that the requirement to be close to a source of cooling water unnecessarily restricts the range and number of potential sites for the applicant's proposal. Our reason for this concern stems from the availability of dry cooling systems that preclude the requirement for cooling water. Hence, the number of alternative sites for the combined-cycle facility has been unreasonably restricted. In addition, since dry cooling systems are a proven technology, they represent a practicable alternative to wet cooling systems such as the present proposal. Given the availability of dry cooling systems, the applicants' proposal would appear to fail the alternatives test contained in the 404(b)1 Guidelines because special aquatic sites including wetlands would be affected by fill for the intake and pipeline. 5

At least two alternative sites, Sherman Farm Road and Buck Hill Road are located close to Wildlife Management Areas (Black Hut and Buck Hill). However, Buck Hill Road was not carried forward as a recommended site by the FERC because of environmental limitations. On page D-37, the FERC identifies sensitive receptors to include recreation areas. We believe Wildlife Management Areas fall under this category because they are used for recreational purposes such as hunting, bird watching, and hiking. Both Black Hut and Buck Hill are within 0.5 miles of alternative power plant sites. On page D-51, the FERC identifies the proposed power plants as objectionally intrusive in areas that have, among other features, parks and wildlife refuges. Thus, neither Sherman Farm Road or Buck Hill Road sites are compatible with existing land uses as identified by the FERC in table D-18. 6

W-12

FA3-4 Ocean State Power proposes to build a gas-fired, combined-cycle, base-load 500 MW power plant at a single location. Alternative generation modes, including those discussed in the comment, are not superior to the proposed technology in one or more of the following ways: overall environmental impact, plant size limitations, fuel availability limitations, and operating characteristics limitations. Therefore, it was not appropriate to review these technologies in the alternative site analysis.

FA3-5 Dry cooling is indeed a proven technology, but may not automatically meet other criteria in the 404(b)1 guidelines (other significant environmental consequences, e.g., size and noise, cost, and logistics). In general, considerations of overall environmental impact, cost, and logistics strongly favor a wet cooling system for the proposed site. Thus the siting analysis emphasized wet cooling but did not preclude dry cooling.

FA3-6 There are many reasons why some sites are ranked lower or eliminated and others considered. A power plant may be inconsistent and incompatible with the recreation activities available at a park near a site, yet the site can still remain environmentally acceptable; however, it may not be the best available site. Distances to sensitive receptors cannot be considered as fatal flaws, but will assist in rating sites.

On page D-52, the FERC specifically identifies the Buck Hill Road site as being incompatible (-) with the nearby Buck Hill Management Area. Again on page 2-79 of the PDEIS, and page 2-88 of the DEIS, the FERC states that a power plant at the Buck Hill Road site would be inconsistent and incompatible with recreational activities at the nearby Pulaski State Park, also adjacent to Buck Hill Management Area. Unfortunately, the FERC did not use this information to eliminate these sites from active consideration. We believe siting these facilities close to wildlife management areas, parks and similar public facilities should be considered fatal flaws and, therefore, the Buck Hill Road and Sherman Farm Road sites should be eliminated from further consideration. 6 cont'd

Alternative pipeline proposals - Natural gas pipeline construction is proposed in 5 sections along Tennessee's Main Line (looping) and for the Rhode Island extension from Tennessee's Main Line to the proposed power plant (new alignment). Several wetlands would be adversely affected by the looping project in New York and Massachusetts. Based on our review of the information presented in the DEIS, we conclude that insufficient data is available for the FERC or Corps of Engineers to find that these looping proposals comply with the 404(b)1 Guidelines, particularly Sections 230.10(a), (b), and (c). The adverse environmental effects of these wetland alterations are clearly more than minimal on an individual basis. On a cumulative basis we believe these effects trigger 230.10(c); that is, they cause or contribute to significant degradation of waters of the United States. As an example, no consideration is given to utilizing additional compression facilities on Tennessee's Main Line in New York and Massachusetts as an alternative to avoid wetlands. Several wetlands such as Nelson Swamp, Papscanee Marsh and Leonards Pond are a few examples where such an analysis should be provided in the EIS. The Leonard Pond wetland system would apparently be crossed by loop 7 in Feeding Hills, Massachusetts. However, because of the value of this wetland system, the EPA is conducting an advanced 404(c) which will likely result in the prohibition of the discharge of fill material. Hence, additional compression or alternative routing may be required to avoid the Leonard Pond wetland system. The DEIS lacks this 404(b)1 Guidelines analysis for all of the wetland crossings associated with the looping proposals. 7 8

The Rhode Island extension presents a slightly different problem in that this pipeline could be constructed in or adjacent to existing natural gas transmission lines, within or adjacent to electric transmission line ROW's, on new alignment or some combination of the above. The DEIS does not contain sufficient information on the nature of the resources impacted or the duration of the impacts for the Service to determine which, if any, of the alternative alignments are ecologically acceptable and in compliance with the 404(b)1 Guidelines. One of the critical ecological factors absent from the evaluation in the DEIS is the effect of the various alternative alignments on 9 10

W-13

FA3-7 The Staff understands that Section 404 requirements for dredge and fill in wetlands would be met by a Nationwide Permit as described in 33 CFR 330.5(a)(12). Because most or all of the wetland crossings would comply with the standard conditions of the Nationwide Permit, and because Tennessee's construction procedures would comply with the standard management practices (33 CFR 330.6), no significant degradation to waters of the United States would occur. The need for individual Section 404 permit authorization and any additional 404(b)(1) Guidelines analysis will be decided by the U.S. Army Corps of Engineers. The Corps has not accepted the FERC Staff's invitation to become a cooperating agency in this NEPA proceeding, nor has it expressed any particular concern regarding its permit requirements by submitting comments on the DEIS. Staff notes that on May 3, 1988, the U.S. Fish and Wildlife Service made a request to the Corps' New England Division Engineer to take Section 404 discretionary authority over wetlands, to consolidate all its Section 404 activities regarding this project under a single individual permit. As of May 1988, U.S. Army Corps offices have issued 404 permits for wetland crossings at the following: Loop 1, Loop 4, Loop 5, and Loop 7. Permits for Loop 6 and the Rhode Island Extension are delayed pending completion of water crossing detailed drawings to finalize the application.

FA3-8 Additional compression in lieu of loop construction is not a practical alternative in this project. Leonard Pond is not affected by Loop 7. The purpose of the Nationwide Permit is to "allow certain activities to occur with little, if any, delay in paperwork" (33 CFR 330.1) because it has been determined that these activities would not result in significant impact if the standard conditions are met. Please see the revised Section 2.2.4.

FA3-9 Please see the revised Section 2.2.4.6 and Figure 2.2-21, which shows wetlands along the proposed and alternative routes of the Rhode Island Extension. All impacts to wetlands along the pipeline routes are expected to be of short duration during construction, because the natural grade and consequent hydrologic connections would be restored after the pipeline is in place, as required by the Nationwide Permit. Where trees are cut for the right-of-way, impacts are long term. Formal applications for Section 404 Nationwide Permits are reviewed by the U.S. Army Corps office in Waltham, Massachusetts.

forest fragmentation. The pipeline routes on new alignment and perhaps some of the alignments adjacent to existing "overgrown" pipelines and other ROW's would appear to cause considerable forest fragmentation. This impact would occur in forested uplands, wetlands, floodplains and at small stream crossings. Many species of migratory birds and mammals require large contiguous blocks of forest for suitable habitat, hence they are referred to as forest interior species. The proposed natural gas pipeline and several alternatives would fragment large forested blocks into smaller ones which would be unsuitable habitat for many forest interior species. For instance, the veery and Louisiana waterthrush require contiguous forested blocks of approximately 250 acres for suitable habitat. If the pipeline fragments existing forested habitat into blocks smaller than 250 acres, these two and other forest interior species will not use it for breeding habitat. This has regulatory significance also because the veery typically breeds in forested wetlands and the Louisiana waterthrush uses perennial streams and adjacent riparian zones as breeding habitat. 10 cont'd

In addition, the forest interior species typically will not nest within 200 meters of an opening. Hence, at every forested wetland and small stream crossing made by the pipeline, a large area outside the ROW is rendered unsuitable for these forest interior species. These kinds of impacts need to be fully evaluated for all of the alternative pipelines. An additional consideration that needs to be addressed involves the loss of existing uses in wetlands, streams and other waters. The Federal (EPA) water quality standards require that all existing uses in or on a waterbody must be maintained (40 CFR 131.12). The States of Massachusetts, Rhode Island, and New York have adopted this requirement in their state water quality standards. Thus, the direct loss of habitat and the effects of fragmentation and edge creation on forest interior and other species must be considered in relation to this State and Federal regulation. As a minimum, it appears that those alternative pipeline routes on new alignment or those that involve significant clearing adjacent to existing pipelines and other ROW's may be precluded because they fail the antidegradation provision of Federal and State water quality standards and Section 230.10(b) of the Guidelines. In addition, these same alignments would also appear to cause and/or contribute to significant degradation of waters of the United States and, therefore, fail Section 230.10(c) of the Guidelines. 11

Cumulative Effects of Pipelines and other ROW's

We believe the FERC is required by CEQ and Clean Water Act Regulations to evaluate the cumulative effects of its actions. In this case, the FERC should identify the miles and acres of forest, shrub, old field, wetland, agricultural and other lands that have previously been affected by natural gas, electric, water and other transmission ROW's in the New York-New England area. The cumulative ecological impact of these past actions should be identified in the EIS to form a baseline from which to assess the incremental 12

W-14

FA3-10 Potential impacts to those species of birds and mammals protected by state and Federal legislation are addressed in the DEIS. No official lists of "forest interior species" or legislation protecting these species is known to be in effect at this time. Because the right-of-way width for a new pipeline route is 50 feet, and looping requires an additional 25 feet when parallel to an existing pipeline, the interruption in forest canopy is about half that required for most electric transmission lines and roadways. Once construction is completed, no impacts from noise or human activity would occur except for periodic clearing of woody vegetation regrowth.

The two examples of "forest interior species" cited, the veery and Louisiana waterthrush, do not in fact require undisturbed forest canopy plots of 250 acres as a prerequisite for breeding, according to the Smithsonian series by Arthur Cleveland Bent entitled Life Histories of North American Birds. The veery nests in woods of 20 acres or less, in orchards, and in suitable woodlands near picnic clearings. The wood warbler, or Louisiana waterthrush, nests on the edges of streams or ponds. A stream crossing by a pipeline would not render habitat unsuitable for nesting by these species.

FA3-11 No loss of existing uses is anticipated after construction activities are complete. No long-term degradation of waters is expected. Short-term impacts from construction will be mitigated by implementation of the proposed erosion control measures.

FA3-12 The FERC Staff disagrees; the cumulative ecological impact of all the natural gas, electric, water, and other transmission rights-of-way in New York and New England is in fact reflected as the nature of the affected environment upon which the impacts of this project are assessed. The fact that there have been profound ecological effects from past human activities (including farming, commercial and residential development, as well as transportation infrastructure construction) has no bearing on the impact of the proposed action. By comparison, the cumulative impacts of the OSP project would be minimal.

cumulative impacts of the present proposal. We believe such an evaluation will demonstrate that these pipeline and other transmission type projects have had profound ecological effects in this region. It is also our belief that this cumulative effects analysis will demonstrate that natural gas pipelines alone have long since exceeded the "cause or contribute to significant degradation" threshold established in the 404(b)1 Guidelines. 12 cont'd

Water Quality Impacts on the Blackstone River

The analysis of water quality and physical habitat in the Blackstone River due to the withdrawal of up to 4.4 MGD has several shortcomings. On page 4-9 the FERC correctly states that this consumptive water withdrawal would reduce the physical habitat in riffle and other shallow water areas. No effort is made, however, to quantify this habitat loss or to identify the functions and uses that would be lost. After identifying this potentially significant impact, the FERC then attempts to downplay the significance by stating that the volume (6.8 cfs) represents less than 1% of total river flow during April-September. This is not an acceptable or legitimate way to analyze or evaluate the effects of water withdrawals on aquatic life in the Blackstone River. The Blaokstone has several hydroelectric dams above the proposed intake. Some of these projects have no minimum flow raquirements, others release 7Q10, some recently licensed by the FERC are required to release 0.5 cfsm or inflow, and yet others are essentially run-of-river. Due to these factors, and the potential for industrial and munioipal withdrawals and discharges, the stream flow of the Blackstone fluctuates considarably during the low flow season. The FERC should have acknowledged this flow regulation problem and its relative importance. Due to this manipulation, the 7Q10 type flows occur with much greater frequency than under natural conditions; that is many times during the annual low flow periods, hence the proposed withdrawal exacerbates an already unacceptable situation. 13 14

The same detailed analysis is necessary for the water quality parameters. The FERC has conducted the low flow analysis based on assumed 7Q10 flow conditions. However, due to the manipulation of flows and timing of industrial and municipal withdrawals and discharges, very different conditions exist on the waterbody than those predicted by the water quality model. For instance, on August 21, 1987, RIDEM measured D.O. levels of 3.4 mg/l in the project area at a flow of 120 cfs, a flow slightly above 7Q10 (102 cfs). The water quality model prediction on page 4-14 was 5.6 mg/l, an error of about 60%, thus the analysis in the EIS does not accurately represent the existing situation. The effects of this water withdrawal must be analyzed based on existing flow manipulations, taking into consideration the volume, quality, timing and spatial considerations of discharges and withdrawals upstream and downstream. Diurnal changes caused by photosynthesis and respiration also need to be considered. We cannot accept the statement and implication that reaeration over downstream dams will offset the consumptive withdrawal during 15

FA3-13 Comment accepted; please see the revised Section 4.1.5.2.

FA3-14 Water quality standards applicable to the Blackstone River are based on statistically-determined low-flow criteria (7-day average low flow, 10-year recurrence interval, or the so-called "7Q10 flow"). This flow is determined from records of actual mean daily discharges measured at government gaging stations (in this case, the 56-year flow record at the Blackstone River gage located in the City of Woonsocket). Thus, the computed 7Q10 flow for the Blackstone River reflects actual river flow fluctuations that have occurred over the period of record, whether these fluctuations were caused by natural or man-made conditions. Therefore, by using the computed 7Q10 flow in water quality modeling, the effects of flow regulation associated with upstream hydroelectric facilities has been taken into consideration. Since the computed 7Q10 flow is determined by flow-frequency analyses of actual flow records, there is no reason to believe that "7Q10 type flows" occur with any greater frequency on the Blackstone River than under natural conditions.

FA3-15 The applicant has recently completed two additional water quality modeling studies on the Blackstone River, conducted by Applied Science Associates (ASA) and Ecology and Environment, which address toxic metals concentrations and dissolved oxygen, respectively. The results of these model studies have been summarized in the revised Section 4.1.2.1.2. The ASA study addressed 7Q10 flows and 1Q10 flows representing chronic and acute aquatic impacts, respectively.

low flow. The net decrease in flow will result in less capacity to satisfy oxygen demand from all sources, hence the D.O. will be lower than present conditions on a persistent basis in all downstream sections during low river flows. The impounded sections of the river downstream from the proposed intake would be the most frequently and severely impacted. Both of these physical and chemical factors will adversely affect resident aquatic life and hinder and/or prevent fishery agencies from proceeding with anadromous fish restoration. We believe the FERC needs to conduct an indepth reevaluation of the direct and indirect effects of the proposed diversion from the Blackstone River with particular reference to the low flow period. 15 cont'd

On page 4-14, the FERC incorrectly states that the Service suggests a minimum flow regime of 0.5 cfsm (208 cfs) at the proposed intake structure. This is the recommended flow prescribed by the Service for the Blackstone River and it is fully consistent with past flow recommendations for this system. The FERC has accepted these minimum flow conditions and the Commission has made this flow regime a License condition (FERC #3063, Central Falls Project). Hence, the Commission should be consistent with past practice and include the Service flow regime as a condition of any license or permit that would enable the proposed project to be constructed and operated. The following conditions are recommended: The applicant (OSP) shall maintain an instantaneous minimum flow of 208 cfs (0.5 cfsm) in the Blackstone River at and downstream from the cooling and process water intake structure. When flows in the Blackstone River drop below 208 cfs at the proposed intake, the diversion of flow to the OSP facility shall cease immediately and shall not resume until flows rise above 208 cfs. While this flow would provide for historical physical habitat conditions, it may or may not be sufficient to protect resident and anadromous fish and other aquatic life from dissolved oxygen and toxicity problems present in the Blackstone River. Hence, the FERC needs to evaluate these issues in any subsequent EIS. 16

On page 4-12, the FERC states that the Applicant (OSP) has agreed to install instream aeration devices or use other means to mitigate any reductions in dissolved oxygen levels caused by its flow diversion. We are unaware of any provision in the Clean Water Act that would allow for this concept to be implemented. On the surface this concept would appear to violate the antidegradation policy contained in EPA and Rhode Island water quality standards. We recommend that this issue be addressed in detail in the FEIS. 17

Cooling Tower Effects - On page 4-29 ground level icing is predicted to occur up to 300 hours/year (Bechtel, 1986) on West Ironstone Road, the north boundary of the Black Hut Management area. However, on page 4-30 these predictions are revised downward, by using a different model, to less than 5 hours/year (C.T. Main, 1988). This is a difference of about 2 orders of magnitude and strongly suggests that a major error exists in one or both of these analyses. In addition to icing and fogging, these modelling discrepancies are carried into the analysis on cooling tower drift and other 18

FA3-16 Section 4.1.2.1.2 has been revised to reflect the USFWS recommendation for a flow regime of 0.5 cubic feet per second per square mile of drainage area for the Blackstone River. Further recommendations in this comment are noted.

FA3-17 The FEIS has been revised to indicate several possible means for mitigating dissolved oxygen impacts (Section 4.1.2.1.2). These mitigating measures do not include instream aeration devices. RIDEM will decide what measures are appropriate.

FA3-18 The original cooling tower modeling analysis (Bechtel Eastern Power Corporation, December 1986) reported in the EIA filed before the Energy Facility Siting Board was intended as a preliminary screening analysis, based on a highly conservative modeling approach. The subsequent analysis (C.T. Main, 1988) was based on a more current modeling theory developed by Argonne National Laboratory for the Electric Power Research Institute. It is not unusual for a screening modeling approach to result in differences of up to two orders of magnitude when compared with a more refined modeling approach. The more recent analysis is considered to better represent moist cooling tower plume behavior at the proposed OSP plant.

plant emissions. Another potential discrepancy may exist with cooling tower plume water deposition patterns (figure 4.1-2) and cooling tower plume salt deposition (figure 4.1-3). The DEIS does not account for the major differences in the deposition patterns of plume water droplets and plume salts. In addition, maximum plume water deposition is expected near the plant site, while maximum salt deposition is predicted approximately 2.6 kilometers south of the cooling towers. The ecological effects of these cooling tower emissions are dismissed by the FERC as being non-existent, minor and not significant. However, these analyses were only estimated for heavy metals, salts and chlorine using the C.T. Main data. No such analysis was conducted for organic contaminants present in the Blackstone River. Thus, this omission needs to be evaluated in the FEIS. On page 4-43, the FERC states that salt deposition is more than two orders of magnitude less than levels reported to cause injury to plants. However, as we previously identified, the FERC has acknowledged that the models employed to make these predictions yield results that are 2 orders of magnitude apart. Thus, if the Bechtel model results are used in the analysis, the FERC could reasonably conclude that salt deposition would cause injury to plants. These issues need to be resolved in a convincing manner in the subsequent NEPA documents. 19 20

Aside from the modelling issue, the FERC has not evaluated the potential impact of cooling tower deposition on areas that could concentrate these materials. These areas would be wetlands, drainage courses and small streams within the areas shown on figures 4.1-2 and 4.1-3. This area includes a large portion of the Black Hut Management Area. It seems reasonable to assume that potential toxicity problems could result to biota in these systems because the Blackstone River water is thought to exhibit chronic toxicity to resident aquatic life during low flow periods. This same river water would be concentrated many times in the cooling system before being released into the local environs near the plant site. The FERC analysis assumed that these contaminants would only exert an effect at the initial point of deposition and did not evaluate the movement of these materials into the surface and/or ground water system. Because of shallow soils and ledge outcrops in much of this area, we would expect normal runoff to carry and deposit these contaminants in the above referenced surface waters. These contaminant pathways need to be carefully evaluated in subsequent revisions to this EIS. We remain concerned that a variety of aquatic, wetland and upland species could be subjected to either acute or chronic toxicity from materials deposited from the cooling tower emissions. 21

Proposed Plant Site - The FERC evaluation of the effects of construction at the plant site is limited to the footprint of the facility. As in the case of the pipeline proposals, the FERC did not consider indirect and/or secondary effects of these construction activities on forest interior species or those intolerant of human intrusion and/or disturbance. In addition to eliminating 22

W-17

FA3-19 The difference in the deposition patterns shown in Figures 4.1-2 (water) and 4.1-3 (salt) is a direct result of fundamental differences in the behavior of water droplets of different sizes. Plume water deposition occurs relatively close to the plant site, since the larger mass droplets tend to fall out of the plume within a short distance. Salt deposition occurs at greater distances, because the smaller diameter salt particles are carried farther downwind within small, slowly evaporating water droplets. The smaller the size of the droplet carrying the salt particle, the farther downwind the particle will be carried and eventually deposited. Emissions of volatile organic compounds (VOC's) from the cooling towers (i.e., from the Blackstone River water) were not considered to be significant (see Section 4.1.3.5.4).

FA3-20 Please see the response to comment FA3-18.

FA3-21 FERC Staff concurs with the commentor that cooling tower deposition will be locally concentrated by drainage courses and the ground-water system. However, neither system is static and there should be limited potential for contaminants to accumulate, except in very isolated areas. Normal flushing should prevent the accumulation of toxic levels of these substances. Studies reviewed by the Staff (Ecology and Environment, October 1987a, b, and c) indicate that toxicity problems from contaminant accumulation are unlikely. Please see also the response to comment FA3-19.

FA3-22 No forest interior species are expected to be affected by plant construction because the site is already bisected by transmission line and pipeline rights-of-way and has a large switchyard on it. Any "sensitive" species that are intolerant of human intrusion would probably leave the area. Please see also the response to comment FA3-10.

one small wetland and several acres of upland forest at the plant site, the adjacent wetlands and uplands would be rendered as unsuitable habitat for several sensitive species. These effects need to be considered in the site evaluation process and in subsequent revisions to the EIS. We believe the FERC should also evaluate the proposed water and oil pipeline routes to insure that they avoid and/or minimize habitat fragmentation. 22 cont'd

Time-of-Year Restrictions - We recommend that the FERC impose time-of-year restrictions on the applicants with respect to vegetation clearing and maintenance and other construction activities. Migratory birds and other species of wildlife are vulnerable to disturbance during their reproduction season and precautions are therefore, necessary during this critical period. All migratory birds; their parts, nests or eggs; are protected under the Migratory Bird Treaty Act, 16 U.S.C. 703. Migratory birds are vulnerable to timber harvesting and ROW clearing, maintenance or construction activities during the breeding-brood rearing season, normally April - June. Certain construction activities and nearly all vegetation removal and/or control practices should be prohibited during this time frame. In addition, since some species such as raptors nest early in the spring, we recommend that areas proposed for vegetation clearing and/or construction be surveyed for raptor nests. These subject activities should be prohibited from a zone 100 meters around any raptor nest tree during the breeding-brood rearing season. 23

Topsoil Conservation - One of the Applicants (Tennessee) has proposed to sequentially remove, stockpile and replace topsoil in certain agricultural areas. The FERC has recommended that wetland topsoils be handled in a similar fashion. We continue to recommend that all topsoil be sequentially removed, stockpiled and replaced. We believe this is necessary in wetlands, upland forests, old fields and other cover types because the topsoil contains a very diverse micro flora and fauna, organic matter, available nutrients and a proper soil structure and texture that is essential for reestablishment of vegetation. In wild lands, the topsoil will contain native rootstock that may help minimize the time needed for successful site revegetation. We, therefore, recommend that the FERC make this a License condition for the gas, oil and water pipelines and power plant proposals by Tennessee and OSP. 24

Segmentation Issue - We believe the FERC has created a segmentation issue with respect to the future construction of 26 miles of pipeline looping to carry the second 50,000 mcfd increment of natural gas to the proposed power plant site. In addition, on page 2-189, the FERC makes a reference to the Providence Project (CP87-75-000) that indicates that the Rhode Island Extension and the Providence Project are closely related. We believe these closely related issues must be evaluated in any subsequent EIS. 25

W-18

FA3-23 The Migratory Bird Treaty Act seeks to protect migratory birds from intentional acts against birds, particularly those resulting from hunting birds or trading in bird eggs or nests. FERC Staff is unaware of any instance in which the Act has been applied to right-of-way clearing or to any other construction, agricultural, or forest management practices that could have an incidental effect on migratory birds. Any potential effects upon migratory birds of the proposed right-of-way clearing would be extremely limited and would not result in any significant impacts to population size or species diversity. Proposed construction timetables call for the majority of construction activities to be completed between mid-May and the end of September.

FA3-24 Staff has recommended that topsoil be segregated from all ditch-line excavation in cultivated lands and wetlands, where practicable. Staff has also recommended that all other lands be seeded with mixtures appropriate for revegetating disturbed soils. Please see also comment GIC10-4 and Staff's response.

FA3-25 Comment noted; please see the response to comment FA2-2; also see comments SA7-1, GIC8-68, and GIC10-14 for related discussions. The relationship between the Providence Project and the proposed facilities that are the subjects of this EIS is discussed in Section 2.2.3.1.

Environmentally Preferred Site - The FERC identified an environmentally preferable site approximately 3 miles east of the Applicants' preferred site at Sherman Farm Road. The Ironstone Industrial Park site is located in a soon-to-be abandoned gravel mine. It is adjacent to a major 4-lane highway and hence, has been subjected to human intrusion and disturbance. This site does not contain any wetlands and hence would comply with the 404(b)1 Guidelines unlike the Sherman Farm Road site. While this almost certainly is not the only environmentally preferable site for the proposed power plant, it is the most promising one identified by the FERC. We believe the FERC has not fulfilled its NEPA obligations with respect to this siting question because they have not chosen to utilize the planning and investigation opportunities provided by this law and its implementing regulations. Unanswered questions concerning the Ironstone site should not be left unresolved simply because of unrealistic time constraints imposed by the FERC, the State of Rhode Island or the Applicants. This DEIS simply is not complete without all of the relevant information concerning the feasibility of the Ironstone site, and hence, the document is therefore, inadequate. 26

Summary

Based on our review of the DEIS and other relevant information, we recommend that the Buck Hill Road and Sherman Farm Road sites be deleted from further consideration as potential locations for the proposed combined-cycle power plant. We believe the proposed project is inconsistent and incompatible with the existing land use on and adjacent to these Wildlife Management Areas. Unresolved issues remain concerning the effects of cooling tower emissions on flora and fauna in the identified deposition zones near the proposed plant. The effects of water diversion from the Blackstone river on physical habitat and water quality were not adequately evaluated in the DEIS. An indepth reevaluation of this entire issue is warranted. The alternatives analysis for natural gas pipeline looping segments and the Rhode Island Extension did not provide sufficient information for an informed decision to be made concerning which, if any, route was environmentally preferable, acceptable or in compliance with pertinent regulations such as the Clean Water Act. The FERC also left several unanswered questions standing with respect to the environmentally preferable Ironstone site, hence the DEIS is incomplete. The Fish and Wildlife Service does not agree that the proposed action has been demonstrated to be environmentally acceptable or in compliance with pertinent environmental regulations including NEPA. In the future, we expect to be conducting a separate but interrelated review of the wetland aspects of this proposal in accordance with applicable Section 404 regulations. These interrelated actions should be taken into consideration by the FERC as this planning process progresses.

If you should have any questions concerning these issues, please contact Mr. Vern Lang of this office at 603-225-1411 or FTS 834-4411.

Sincerely yours,

Gordon E. Beckett

Gordon E. Beckett
Supervisor
New England Area

Enclosure
CC: RO/FWE Reading File
EPA, Boston
COE
FWE: VLang:gl:4-15-88:834-4411

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FA3-26 Additional information has been received on the Ironstone site that supports Staff's conclusion in the DEIS that Ironstone is an environmentally acceptable site. A groundwater resource evaluation demonstrated that the development potential is sufficient for local small users, but inadequate for municipal supplies. In addition, down-gradient groundwater resources are not likely to become municipal water supplies.

The interstate transfer of water from Rhode Island at Woonsocket to the Ironstone site in Massachusetts would be required if wet cooling towers were used, because adequate supplies could not be withdrawn from the Blackstone River in Massachusetts (see the response to comment FA4-24). If a dry cooling system were used, plant water requirements would be reduced and would likely be available from the Blackstone River and potentially from other sources.

Noise impacts from a plant at Ironstone would be expected to be somewhat less than at Sherman Farm Road, but would also be perceived as significant by local residents, especially to the west of the site away from the four-lane highway. If dry cooling were used to reduce the impacts of withdrawals on the Blackstone River, an increase in noise levels would be expected. Hence, there is a tradeoff of reducing water resources impacts and increasing noise impacts.

The small upland wetland at the Sherman Farm Road site that would be directly affected by plant construction meets criteria for a Corps of Engineers' Nationwide Permit, as do the other wetlands affected by pipeline rights-of-way. The larger wetland adjacent to the plant site is avoidable through modifications to the plant grading plan. Ironstone is, as noted by the commentor, a highly disturbed site; it does however contain wetlands. These wetlands would also be affected by Ironstone's ancillary facilities—pipelines and transmission lines—as shown in Table 2.1-27.

Staff notes that CEQ and FERC regulations implementing NEPA, as well as NEPA itself, all require the evaluation of alternatives to consider consequences to the human and natural environment. It is not required that the alternative with the least impact be adopted. Staff has evaluated numerous alternative sites and has determined that the Ironstone site is the environmentally preferred site, especially if a dry cooling system is employed. However, Staff makes no recommendations that the Ironstone site be selected. Staff had determined that the environmental impacts of developing a power plant at Ironstone, Sherman Farm Road, Bryant College, or several other potential sites would be acceptable considering human and natural environmental issues and other considerations, including economic costs.

FA3 (cont'd)

MAINE POWER PURCHASE AGREEMENTS
WOOD FUELS ONLY -- JUNE 1987

PROJECT	LOCATION	BUYER	START	STAT	TYPE	FUEL	TPY	TERM, YRS	CAP MW
A.R. Lavalley Project	Sanford	CMP	10/01/84	OP	CG	W	12000	14	1
Bates Fabrics Project	Lewiston	CMP	10/01/85	OP	CG	W	156000	13	13
Beaver Wood Joint Venture	Chester	BHE	12/01/86	OP	SP	W	204000	20	17
Chadbourne Cogen Project	Bethel	CMP	12/22/86	OP	CG	W	24000	10	2
Dirigo Dowels Project	New Portland	CMP	11/01/85	OP	CG	W	3600	15	0.3
Forster Mfg. Project	Strong	CMP	2/01/84	OP	CG	W	12000	13	1
Robbins Lumber	Searsmont	CMP	10/01/84	OP	CG	W	12000	12	1
Sherman Lumber Co.	Sherman Station	MPS	6/01/86	OP	CG	W	260000	15	18
Swift River/Hafslund Project	Greenville	CMP	10/01/86	OP	SP	W	125000	20	14
Ultrapower	West Enfield	BHE	12/01/86	OP	SP	W	275000	20	25
Ultrapower	Jonesboro	BHE	12/01/86	OP	SP	W	275000	20	25
United Timber	North Anson	CMP	12/01/84	OP	CG	W	24000	15	2
Scott-Somerset	Hinckley	CMP	12/01/82	OP	CG	W/C	450000	15	50
Scott-Westbrook	Westbrook	CMP	10/01/82	OP	CG	W/C	800000	15	42
							----------		--------
						TOTAL	2632600	TOTAL	231.3
Carrabassett Power Project	Stratton	CMP	6/01/88	PL	SP	W	440000	20	37
Scott-Winslow Project	Winslow	CMP	1/01/88	PL	CG	W	228000	15	19
Boise-Cascade	Rumford	CMP		PL	CG	W/C	300000	15	75
							----------		--------
						TOTAL	968000	TOTAL	131
Bates Energy Associates	Bates Coll,Lewi	CMP	11/01/87	UC	CG	W	4800	20	4
Fairfield Energy Venture	Fort Fairfield	CMP	7/01/87	UC	SP	W	360000	15	30
Gorbell/Therma Electron Power	Athens	CMP	9/01/87	UC	SP	W	200000	10	14
Champion International	Bucksport	CMP	10/01/88	UC	CG	W/C	430000	20	72
							----------		--------
						TOTAL	994800	TOTAL	120

TOTAL WOOD-FIRED ELECTRICITY FOR SALE TO UTILITIES BY 1990							----------	TOTAL	482.3
TOTAL TONS PER YEAR WOOD FUELS						TOTAL	4595400		
TOTAL WOOD PLANTS OPERATING BY 1990				21					

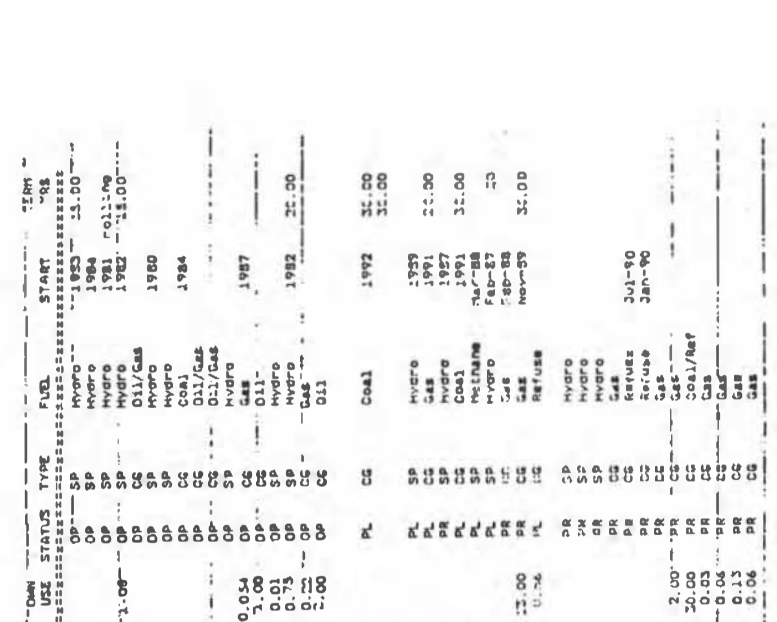
Stat = Status
PL = Planned
UC = Under Construction
OP = Operating

Type: CG = Cogeneration
SP = Small Power

Fuel: MSW = Municipal Solid Waste
W = Wood
W/C = Wood & Coal

*27MW for sale to utility,
45MW for internal consumption

Maine Office of Energy Resources
Michael McConnell, Biomass Resource Planner



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
J. F. KENNEDY FEDERAL BUILDING, BOSTON, MASSACHUSETTS 02203

FA4

April 25, 1988

Lois D. Cashell
Acting Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, N.E.
Washington, DC 20426

RE: Docket No. CP87-132-001

Dear Ms. Cashell:

In accordance with our responsibilities under the National Environmental Policy Act and Section 309 of the Clean Air Act, we have reviewed the Draft Environmental Impact Statement (DEIS) for the proposed Ocean State Power Project in Burrillville, Rhode Island, and associated natural gas pipeline facilities in Rhode Island, Massachusetts, and New York.

According to the DEIS, Ocean State Power (OSP) proposes to construct and operate a 500-megawatt (MW) natural gas-fired combined cycle power plant; a 10-mile pipeline to transport up to 4.4 million gallons a day of process and cooling water to the plant from the Blackstone River; and a 7.5 mile pipeline for delivery of fuel oil for emergency use in the event that natural gas is not available.

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The DEIS also addresses the Tennessee Gas Pipeline Company's related proposal to build pipeline facilities including a total of 25.5 miles of 30-inch looping in five segments located adjacent to existing gas pipelines in New York and Massachusetts; roughly 11 miles of new 20-inch pipeline in Massachusetts and Rhode Island; additional horsepower of compression at 3 existing compressor stations in New York and Massachusetts; and a new 4,500 horsepower compressor station in New York.

As you know, our letters to FERC and the Economic Regulatory Administration dated March 20, 1987, April 17, 1987, September 21, 1987, and February 10, 1988 and our motion to intervene dated November 3, 1987 identified the principal issues of concern to EPA and recommended ways that they be treated in FERC's EIS. We believe the DEIS reflects considerable efforts by FERC's staff and their consultants to be responsive to our concerns under the difficulties of an extremely tight schedule.

We are nevertheless concerned from the standpoint of EPA's areas of jurisdiction and expertise that in several important respects the DEIS leaves unresolved certain critical issues, discussed in detail below, which in our view need to be resolved prior to a decision granting approval for the project. We also believe that the alternatives analysis is seriously flawed. These shortcomings

notwithstanding, the DEIS contains enough information for us to conclude from our review that the project could cause substantial water quality, wetlands, and noise impacts; and that these impacts could largely be avoided through selection of the environmentally preferable site--Ironstone in Uxbridge, Massachusetts; use of dry cooling technology; careful routing of the pipelines around critical wetlands; and stringent noise mitigation measures.

These concerns are discussed below in more detail.

WATER QUALITY

As mentioned above, OSP proposes to withdraw up to 4.4 million gallons per day of water from the Blackstone River in Woonsocket and transport it to the power plant via a 10-mile-long pipeline for process and cooling purposes. As you know, the Blackstone River is currently stressed due to low dissolved oxygen and metals problems caused by municipal and industrial wastewater discharges in Massachusetts and Rhode Island. For these reasons EPA and the states of Rhode Island and Massachusetts have designated the river as a critical water quality problem area. We are concerned about the DEIS' treatment of the water quality impacts in several respects:

1. Though the DEIS indicates that river flow conditions may at times be so low that OSP's 4.4 mgd withdrawal would be deemed unacceptable, it does not describe what the conditions would be, how frequently they would occur, or what OSP's contingency would be in those circumstances. Indeed, the DEIS acknowledges the lack of resolution on this important issue and states that monitoring and coordination with the Rhode Island Department of Environmental Management will have to occur regarding the effects of the plant's operation on water quality and quantity in the Blackstone. The implication of this approach is that FERC believes this concern does not need to be either resolved or even subject to analysis and public review in the NEPA process. We do not agree. In view of the relevance of this issue to a judgement as to the environmental acceptability and feasibility of OSP's proposal, we strongly believe that, consistent with the requirements of the Council on Environmental Quality's regulations implementing NEPA, the EIS should both address the issue and be the vehicle for its public review and resolution. 1

2. In the event that approval is granted for OSP to withdraw water from the Blackstone River, the authorization should be conditioned to insure that withdrawals will not result in river flows below the historic 7 day 10 year low flow (7Q10). Development of an effective means to enforce this provision would be very important. The development of an emergency cooling water source or a requirement for plant shutdown should be part of this attempt to insure protection of the water uses and aquatic ecosystem in the river.

3. The DEIS concludes that the impacts of the water withdrawal will cause insignificant impacts; however, as we stated in comments on the preliminary DEIS, little analysis of actual effects on water uses and the aquatic ecosystem is presented to support this conclusion. 2

W-22

FA4-1 The RIDEM has ultimate responsibility for the regulation of water quality in the Blackstone River in the State of Rhode Island. That agency is presently reviewing the proposed withdrawal of OSP makeup water in the State 401 certification process. The applicant will be required to comply with any and all withdrawal restrictions imposed by RIDEM. If such restrictions include a cessation of withdrawal under specified conditions, the applicant will be required to shut down the power plant or utilize another source of water. The FERC does not have regulatory authority to define or impose such restrictions. FERC Staff believes that, if RIDEM places any withdrawal restrictions on the permit that require plant shutdown, it would be wise for OSP to develop an emergency backup supply. This could be a well field in the Branch River aquifer near Slatersville.

FA4-2 Since spawning occurs during the spring when river water levels are high, even maximum withdrawals will only affect 1 percent of the flow. Shallow-water spawning areas will either be unaffected or increase slightly, for a net zero to positive impact from water withdrawal during springtime.

For example, with respect to the physical effects of the proposed withdrawal, the DEIS does not address whether shoreline spawning habitat will be impaired or removed, and if so, the extent of the impact. Reduction of spawning habitat could have an adverse effect on the improving fishery resources noted in the DEIS. 2 cont'd

The DEIS also states that the estimated lowering of dissolved oxygen and the potential increases in some metals concentrations as a result of OSP's water withdrawals will be minor. These statements seem to be based on the relativity of one number to another rather than an evaluation of the biological effects that the changes might impart. Minor changes in the numeric concentration of a specific parameter might significantly change the impact that the parameter will have over a long exposure period. Also, small changes in several parameters might result in a cumulative chronic effect. Chronic stress could result in an aquatic community that is more susceptible to acute exposures. The DEIS does not make acutal estimates of impact; it therefore is difficult to determine if the conclusions of insignificance are valid. Our review is further impeded by the absence of the October 1987 and November 1987 Ecology and Environment water quality investigation reports which we requested in our comments on the preliminary DEIS. 3

4. Zinc and mercury should be included in the estimates of metal concentrations downstream of the Woonsocket wastewater treatment plant as a result of water withdrawal from the Blackstone River (Tables 4.1-2 and 4.1-3, pages 4-11 and 4-13). Also, hexavalent chromium should be considered in addition to trivalent chromium. 4

5. As we have stated on several occasions to both OSP and FERC, we believe that there is a possibility that OSP's plans for zero wastewater discharge are unrealistic based on our experience with zero discharge proposals elsewhere in New England. In addition to the potential need to discharge blowdown water, it also seems possible that large volumes of cooling water might need to be discharged. The likely choice for a receiving water in this situation, based on the description of the Sherman Farm Road site, would be a wetland area or small brook. Such a discharge would require authorization under the Clean Water Act. As we have pointed out, federally approved water quality standards and wetland protection regulations would likely prohibit or make very difficult discharging into such receiving waters.

The DEIS does not evaluate the possibility of a discharge of water from the proposed power plant. On page 2-39, the DEIS states that "stormwater runoff and water from up to 24 hours of treatment plant malfunctions would be diverted to a holding pond located on the plant perimeter." The DEIS does not address where the water would go if treatment plant malfunctions are not repaired in 24 hours or if heavy storm events cause overflow of the holding pond. On page 2-41, the DEIS lists other options for handling treatment plant malfunctions; however, the options only provide relief for "several hours". The DEIS also states on page 2-41 that in the event that malfunctions are extensive enough to exhaust the options, plant operations "would have to be shut down". This conflicts with a statement on page 4-100 under the 5

FA4-3 The FEIS has been revised based on recent information to include a discussion of chronic and acute biological impacts. Please see the revised Section 4.1.2.1.2.

FA4-4 Recent modeling studies have included zinc and chromium; Table 4.1-2 has been revised to incorporate these data. The studies did not include mercury.

FA4-5 No cooling water will be discharged to the onsite wetlands or to any surface streams. Section 2.1.3.2.5 has been revised to indicate that the holding ponds will be designed to prevent overflow, and will also be sealed to prevent groundwater contamination. The holding pond would be used for temporary storage of plant wastewaters in the event of treatment plant malfunctions, and would be able to store water from up to 48 hours of plant operation. The water would then be recycled back through the treatment system as flows permit. Stormwater runoff from the plant area would be diverted to two onsite detention basins (which are completely independent of the holding pond) for settling prior to offsite discharge. The statement concerning discharges of low quality water has been removed from Section 4.3.5.

section entitled "Unavoidable Adverse Environmental Effects", that "if zero discharge elements of the design prove to be unworkable, there may be some discharges of low quality water." The possible need for a surface water discharge at the site and the associated potential impacts should be evaluated. 5 cont'd

6. From the standpoint of water quality concerns relative to the withdrawal of water from the Blackstone River, the alternative of a dry cooling system is clearly preferable, a point with which FERC evidently agrees. Dry cooling also has the advantage of being a proven technology whereas, as the DEIS points out, OSP's proposed electrodialysis reversal (EDR) system has limited industry experience in the United States and is known for operational failures, at least initially (page 2-40). (The DEIS indicates that dry cooling systems cause greater noise and visual impacts than the proposed wet cooling system, a potential concern at the Sherman Farm Road site, but correctly points out that these impacts would not be a concern at the alternate Ironstone site, discussed further below). We believe that the DEIS should more explicitly state the clear environmental (and possibly technological) advantages of the dry cooling option. In section 2, pages 2-111 to 2-218, however, the evaluation of the treatment plant effluent and dry cooling alternatives seems to be dominated by economic considerations. 6

In the cost comparison between wet cooling and dry cooling, only the cost of one system versus the other is compared. We believe the DEIS should also evaluate the cooling systems' respective costs vs. the cost of the entire project. 7

7. As with the conclusions concerning proposed water withdrawal from the Blackstone River, other conclusions of insignificant impacts, such as those concerning increased runoff due to clearing of forest for construction of the power plant and pipelines, do not seem to be supported by an actual analysis. The possibility of permanent effects on surface water or groundwater due to increased runoff is mentioned in section 4.3, p. 4-97, but there is no analysis of what the effects would be or the extent to which they would be significant. The DEIS should provide this information as well as a discussion of how pipeline rights-of-way will be maintained without the use of herbicides. 8 9

Protection to streams and wetlands from construction of the plant and pipelines will require stringent, enforceable sediment controls and best management practices. More detailed sediment and erosion plans need to be finalized prior to permit issuance. We recommend that FERC require regular inspections by an independent consultant to monitor for turbidity and check for compliance with sediment controls. 10

8. Section five, entitled conclusions, seems to confuse environmental and economic considerations. Discussions of economics for OSP, grants to the towns of Burrillville, Rhode Island and Uxbridge, Massachusetts and tax revenues seem to be misplaced when under a section entitled "Significant Environmental Impacts of the Proposed Action". As discussed more fully below, the 11

FA4-6 It is believed that the advantages of a dry cooling system are clearly stated in the DEIS; however, please refer to the revised Section 2.1.4.3.3.

FA4-7 Comment accepted; please see the revised Section 2.1.4.3.3.

FA4-8 Section 4.3 is a summary of environmental effects that are discussed in other parts of the document. For example, the effects of increased runoff from the proposed plant site are discussed in Section 4.1.2.1.2.

FA4-9 Tennessee has indicated that woody brush will be removed from pipeline rights-of-way by mechanical means (e.g., bushogs, mowers, or hand clearing) near wetlands to avoid use of herbicides. Please see also the response to comment GIC10-5.

FA4-10 FERC Staff believes that Tennessee's Sediment and Erosion Control Plan adequately addresses the necessary procedures. Sufficient authority to monitor and enforce such procedures is available through the Corps of Engineers, state and local permit approvals, and water quality certifications.

FA4-11 The conclusions section has been revised in the FEIS to delete the paragraph on grants by OSP. Discussion of the sociocultural effects of tax revenues and changes in property values is appropriate to a section on environmental effects. The revised Section Five of the FEIS contains a clearer discussion of environmentally preferred options for siting and cooling.

DEIS should make a clearer statement of the environmentally preferred options for siting and cooling. 11 cont'd

WETLANDS

As you know, this project will involve placement of fill material in wetlands for purposes of construction of the power plant and the pipelines. These activities are subject to the permit requirements (individual or nationwide) of Section 404 of the Clean Water Act. (Table 1.3-1 --Environmental Approvals and Permits--incorrectly omits the requirement for a Section 404 permit for this project). Any activities proposed under Section 404 must comply with EPA's Guidelines issued under Section 404 (b)(1). Compliance with the EPA Guidelines requires the following: that there be no practicable, less environmentally damaging alternative to the proposed action; that the activity not cause or contribute to violations of state water quality standards or jeopardize endangered or threatened species; that the activity not contribute to significant degradation of waters of the U.S.; and that all practicable and appropriate steps be taken to minimize potential adverse impacts to the aquatic ecosystem (Section 230.10). Additional review considerations include the potential for cumulative impacts (Section 230.11). 12

FA4-12 Please see the response to comment FA3-6. Note that the requirement for Tennessee to obtain a Section 404 Nationwide Permit is listed in Table 1.3-1 of the DEIS. A similar requirement for OSP has been added to the table in the FEIS. Staff understands that activities proposed under Section 404 must comply with EPA Guidelines under 40 CFR 230 and U.S. Army Corps Guidelines under 33 CFR Parts 230 and 325 for implementation of NEPA where appropriate. Construction procedures proposed by the applicant seek to minimize potential adverse impacts to the aquatic ecosystem and qualify pipeline construction activities for the Nationwide Permit under 33 CFR 330.5(a)(12).

1. Constructing the power plant at the proposed Sherman Farm Road site would fill approximately one acre of wetland and be in very close proximity to Chockalog River and an adjacent bog. By comparison, the Ironstone site, an already disturbed site, would not require any wetland filling according to the DEIS. 13

FA4-13 Please see revised Section 4.1.5.1.1. Two small wetland areas, each approximately 0.25 acre in size, would be filled. These represent the only wetlands to be filled for the project and its associated pipelines. Impacts to these wetlands total less than 1 acre and are not considered by Section 404(b)(1) guidelines to be a significant environmental impact. The adjacent bog and stream would be protected by implementation of erosion control practices and consequently are not expected to be affected. The Ironstone site also has wetlands but the footprint of plant facilities probably could be placed to avoid them.

2. Use of the existing Algonquin transmission facilities (A-1) would avoid 11 miles of new pipeline construction and associated wetland impacts and stream crossings. Use of A-1 would also avoid the need for blasting and disturbing drinking water aquifers along the route, as well as altering virgin lands for the Rhode Island extension. Although use of the A-1 alternative may be viewed by FERC or OSP as impractical or otherwise not feasible, this is not fully demonstrated in the DEIS. Without a demonstration that A-1 is not practicable, it should be selected in order to comply with the 404(b)(1) Guidelines. 14

FA4-14 The Algonquin alternative would also impact wetlands because looping would still be required. This may include blasting and crossing streams and wetlands. At least 25 feet of new right-of-way would be required along looping. Please see the revised Section 2.2.5.3.

3. It is not possible to determine from the description and map on p. 2-165 and 2-166 if the pipeline will be placed next to the existing pipeline which goes through Southwick. We believe it should be placed as closely as possible to the existing pipeline to avoid additional disturbance. Furthermore, we are especially concerned about a possible impact along Leonard's Pond, a wetland in Agawam, Massachusetts on the east side of Provin Mountain. EPA is in the process of designating this wetland under Section 404(c) as protected from future adverse filling activities. All activity in this wetland will require special attention and coordination with EPA. 15

FA4-15 The required dimensions between existing lines and loop lines are presented in Section 2.2.3.1 (page 2-148 of the DEIS), with additional detail specific to Loop 7 (Southwick) presented in Section 2.2.3.2 (page 2-159) and Section 4.2.6.3 (page 4-95) of the DEIS. Generally, the loop line is placed 10 to 15 feet from the existing line. The section through the Fernwood subdivision would be placed entirely within the existing right-of-way. Leonards Pond is more than 1.25 miles east of the east end of Loop 7--i.e., on the other side of Provin Mountain.

4. The wetland impacts in New York from the proposed pipelines are potentially significant, especially at Nelson Swamp, a class 1 protected white cedar swamp. The DEIS indicates that the alternate route which would avoid this wetland would involve a potential erosion problem due to steep terrain. In view of the extraordinary value of this wetland, acknowledged in the DEIS, we believe the 16

FA4-16 Section 2.2.5.1 points out numerous impacts associated with the alternative route around Nelson Swamp other than the erosion problem mentioned by EPA, including an unavoidable wetland crossing. The New York Department of Environmental Conservation believes that the alternative route is not environmentally superior to the proposed route; see comment SA5-12.

W-25

alternative route should be investigated in more detail. Based on information in the DEIS, the erosion problems associated with the alternate route appear controllable through stringent mitigation techniques. 16 cont'd

5. Construction techniques, as described on p. 4-84 and 4-85, must be carefully followed to protect wetlands, especially topsoil segregation. In the case of wetland soils, topsoil must not be stored in other wetlands, or stored for more than 20 days before returning to moist conditions. A consultant should periodically monitor this effort. 17

6. In general, the DEIS lacks a description of mitigation plans for unavoidable wetland losses. Although the measures outlined in the Tennessee Gas Pipeline Wetland and Water Crossing Plan would minimize adverse environmental effects, nothing is proposed to compensate for the loss of valuable habitat. 18

NOISE

In addition to significant noise impacts during construction (page 4-36 to 4-38), the operation of the power plant at the Sherman Farm Road site would cause substantial increases in noise levels over current very quiet ambient sound levels typical of rural residential areas. FERC concludes however that the operational noise impacts are acceptable principally because of OSP's commitment to an offsite Leq noise limitation of 55 dBA.

We are concerned about the basis for FERC's conclusion for several reasons. First, though we agree that EPA's guidelines identify 55 dBA as appropriate for outdoor areas where people spend limited amounts of time, the issue more relevant to a judgement of the impact's acceptability is the extent of the change it will cause. The DEIS indicates that two types of measurements were used to determine current background levels: long term readings taken over a 44-hour period and short term readings taken during 10-minute time periods. The long term readings indicated maximum daytime levels of 51-54 dBA and consistent nighttime levels of 43-44 dBA. However, according to the DEIS, the threshold of the noise detection equipment was 43-44 dBA. The short term measurements showed average weekday readings of 44 dBA, and average weekend readings lower by 3 to 4 dBA. The average minimum readings for weekdays were 32 and for weekends 28 dBA. These short term measurements show that the current sound levels are quiet, and that the long term measurements, because of the limits of the measuring equipment, do not give a fully representative picture of the background levels. 19

In view of the quiet background levels, the 55 dBA limit proposed by FERC and OSP allows a substantial increase in round-the-clock noise, indeed greater than the 10 dBA increase limit required by Massachusetts' "enforced noise guideline". If FERC has relied on the long term measurements to form its conclusion that a 55 dBA limit is adequate mitigation, then we believe that the measurements should be redone using equipment capable of measuring below 43 dBA. Such equipment is available, as indicated in the discussion

W.29

FA4-17 Tennessee is expected to follow its proposed construction techniques as a requirement. Topsoil segregation in all wetlands is a FERC Staff recommendation that Tennessee does not necessarily agree with. However, any mitigation measures that Staff recommends, and which are then made a condition to certificate, must be complied with.

FA4-18 In most instances wetland habitat would not be lost; rather, new habitat would be formed, i.e., an earlier stage of succession.

FA4-19 The purpose of the ambient noise monitoring programs conducted in support of the OSP project were to document existing noise levels in the general vicinity of the proposed facility during both the quietest and the noisiest periods of the day. The long-term measurements reported were admittedly insufficient for documenting quiet-hour noise levels due to inadequacies in the instrumentation (i.e., an unacceptably high threshold of 43 dBA). However, the daytime noise levels of 51 to 54 dBA (L_{10}) recorded at six locations surrounding the plant are consistent with one another and are typical of what can be expected for this type of area. The short-term measurements (10-minute averages) reported in Table 3.1-7 indicate that minimum sound levels recorded in the area were in the range of 25 to 36 dBA, typical of what one would expect for this area during quiet hours. The equivalent sound level (L_{eq}) measurements ranged from as low as 37 dBA to as high as 46 dBA, with weekday and weekend averages of 40 and 44 dBA, respectively. Minimum weekday and weekend L_{90} noise levels (the basis for the Massachusetts DEQE guidelines) were observed to be 33 and 29 dBA, respectively. Average L_{90} levels were 36 to 41 dBA.

An additional noise survey for the area was performed in July of 1987 (BBN Laboratories, Inc., November 1987). Noise level measurements were obtained using an instrument capable of measuring noise levels well below 43 dBA and the results were found to be consistent with those reported in the DEIS. Daytime average L_{eq} levels were observed to be in the range of 44 to 46 dBA at locations north and south of the site. Nighttime average L_{eq} levels were reported to range from 40 to 42 dBA north and south of the site. Day-night sound levels (L_{dn}) were calculated to be 48 to 49 dBA.

The noise monitoring programs conducted for this project could have been performed in such a way as to provide more useful data for documenting minimum noise levels in the area of the project site. The results are, however, considered to be adequate to represent baseline noise levels and additional noise studies would not provide any significant additional information.

It should be noted that there are presently no noise laws or regulations that apply to the OSP project. The Massachusetts guidelines apply only to facilities locating in and applying for operating permits in Massachusetts. However, given the proximity of the OSP project to the Massachusetts border, these guidelines have been considered. Please see revised Section 4.1.4.2.

of long term noise surveys taken at the compressor station sites along the pipeline (see, for example, p. 3-73). 19 cont'd

Further, FERC should require more stringent noise mitigation measures or reconsider the benefits of the Ironstone site from the standpoint of noise impacts. 20

AIR QUALITY

Although air quality impacts from the proposed power plant are not likely to be significantly adverse, we remain concerned that the EIS still does not respond to comments we made in our earlier letters, most recently our February 1988 comment on the preliminary EIS, as follows.

--Best Available Control Technology (BACT) for distillate oil (or even residual oil) is not a 0.5% S content limit as the EIS indicates. Only if OSP accepts a limit under 40 tons of SO2/year in a PSD or some other federally enforceable permit could the power plant evade the requirements of BACT and be allowed to burn 0.5%S oil. Also, the DEIS does not calculate annual SO2 emissions, apparently on the basis that oil firing will not occur unless gas supply is disrupted; however, this alone does not justify the assumption of insignificant annual SO2 emissions. 21

--The DEIS attempts to address our earlier comments and questions concerning exactly what emission limits the New Source Performance Standards impose on OSP's gas turbines. The response (p. 3-27) appears wrong, however, because the NSPS involves no "manufacturer's rated fuel rate at rated load", and the data in the DEIS do not support a 0.0136% (dry basis @ 15% 02) limit. 22

In addition, EPA Region II has the following comments:

The EIS does not indicate the type of compressor engines proposed, i.e. gas turbine or reciprocating engine. The type of equipment used and the resulting emissions will determine the regulations the source will be subject to. If the units are gas turbines they will be subject to NSPS Subpart GG. If they are reciprocating engines Subpart GG will not apply. All proposed sources are located in attainment areas of New York. EPA needs to know what the existing emissions are for all pollutants regulated under PSD and the proposed changes in emissions in order to determine PSD applicability. 23

In order for EPA to properly evaluate the impacts the applicant should be requested to submit the following information for inclusion in the EIS:

--The type of compressors involved in the project.

--A list of the manufacturers of all the compressors involved in the project.

--Estimated emissions from the compressors.

W-27

FA4-20 Noise mitigation measures recommended by the Staff and accepted by the applicant are consistent with previous FERC practice and with EPA noise level guidelines for protection of public health and welfare. Staff does not believe that more stringent mitigation measures are required. The Ironstone site has some advantages over the Sherman Farm Road site with respect to noise; however, there are sensitive receptors near Ironstone also. A comparison of noise impacts at these sites is provided in the revised FEIS Section 2.1.6.

FA4-21 The applicant has submitted a PSD permit application report (including a comprehensive BACT analysis) to RIDEM, and the BACT issue is currently under review by that agency (see comment SA7-16). It should be noted that the resolution of the BACT issue for fuel oil sulfur content is a separate permitting issue that will be handled by the State of Rhode Island. It has been demonstrated that the applicant's proposed BACT of 0.5 percent sulfur-in-fuel for its emergency or standby fuel will result in impacts that are well below all applicable ambient air quality increments and regulations. The estimation of annual emissions for a standby fuel would only be conjecture.

FA4-22 Comment accepted; please see revised Section 3.1.3.3.1.

FA4-23 The compressor engines proposed for use in all compressor stations will be gas turbines manufactured by Solar Turbine, Inc. The emissions for all affected compressor stations are summarized in Table 4.2-3. Actual emissions for compressors proposed for conversion to full-time status are available only from 1-day tests, since these are new units that have operated for only a short time. Results of these tests are presented below; the data presented in Table 4.2-3 represent emissions for continuous operation.

	230B (12/8/87)	233 (2/26/88)
NO_x	2.593 #/hr (11.36 t/y)	17.167 #/hr (75.19 t/y)
CO	2.277 #/hr (9.97 t/y)	4.05 #/hr (17.74 t/y)
Unburned hydrocarbons		2.488 #/hr (10.90 t/y)

#/hr = pounds per hour t/y = tons per year

--For the compressors now in part time service and proposed to be brought into permanent operation, submit their actual emissions for the past two year period. 23 cont'd

ALTERNATIVES

We have reviewed the alternatives analysis with particular interest because of the concerns we expressed in our February 1988 comments on the preliminary DEIS. The alternative site analysis described in the DEIS and Appendix D contains a considerable amount of helpful information but is seriously flawed in our opinion and is not responsive to the concerns expressed in our February 1988 letter. Our concerns are as follows:

1. Although the DEIS and Appendix D is replete with statements as to the environmental advantages of the Ironstone site in Uxbridge, the DEIS indicates that three unresolved issues prevent the FERC staff from stating unqualified preference for the site. These are: unanswered questions about the potential for groundwater impacts; questions as to whether Rhode Island would permit the interstate transfer of water from the Blackstone River; and delays OSP would face if a new site is selected.

We strongly believe that the first unresolved issue, whether there would be adverse groundwater impacts at Ironstone, is an invalid basis for rejecting the alternative site because the Council on Environmental Quality regulations implementing NEPA clearly require that the EIS be the vehicle for evaluating environmental impacts at alternative sites. These regulations require that information on alternatives be in sufficient detail to permit an evaluation of their comparative merits. 40 CFR Section 1502.14. FERC bears the legal burden of having to evaluate the groundwater impact in this EIS, particularly since the issue is of sufficient importance in FERC's view to serve as a disqualifying factor in the alternatives analysis. 24

The second unresolved issue, the policy questions about interstate transfer of water, is equally invalid as a basis for rejecting Ironstone. First, we do not agree with or even understand FERC's unexplained assumption that water withdrawal has to occur in Woonsocket, Rhode Island. In fact, the Ironstone site is located in very close proximity to the Blackstone in Massachusetts. If the flow at that location is significantly lower than at Woonsocket, then the assumption might be correct. However, we are not aware that the flow is significantly lower at the Ironstone site, and the EIS does not provide any information on this point. 25

Second, as the DEIS indicates, dry cooling technology, an environmentally preferable alternative to withdrawal from the Blackstone, could be used at the Ironstone site without other negative impacts such noise. This would negate the need for withdrawal of water, interstate or otherwise. Further, Appendix D (p. D-73) states that 26

FA4-24 Staff notes that the Ironstone site was not, as incorrectly stated in the comment, "rejected" by Staff as an alternative site. There were, however, unresolved issues that prevented the Staff from stating an unqualified environmental preference for Ironstone. The potential for ground-water contamination at the Ironstone site was an issue in a recent rezoning application at the site. As noted in the DEIS, there was concern that rezoning of the site from agricultural to industrial use could compromise the aquifer. The Town of Uxbridge, Massachusetts, engaged a consultant to evaluate the geohydrological characteristics of the Ironstone site and to provide recommendations regarding the Town's land use planning for the site.

Staff has received and reviewed a copy of the report by the Town's consultant (IEP, Inc., 1987). The report concludes that the aquifer is not capable of supporting a large commercial or municipal water supply, and further that any contamination of surface water or groundwater at the Ironstone site cannot flow toward or recharge existing or proposed production wells in Uxbridge, Massachusetts, or North Smithfield, Rhode Island. Contamination of public water supplies is not probable. However, the report notes that the aquifer does provide groundwater discharge to the Ironstone Reservoir and is capable of supporting wells that supply private residences and small businesses. For that reason, the report recommends that if the Town elects to approve the zoning change, it should impose relatively strict controls on the types of industrial activities that can be approved. Staff notes that the recommended uses do not specifically include or exclude an electric generating facility. However, there appear to be no major impediments to including such a facility as a use allowed by special permit.

FA4-25 Comment noted; please see also the response to comment FA2-44. After review of the DEIS text, Staff concurs that the analysis that led to siting the water intake in Woonsocket, Rhode Island (rather than on a Massachusetts reach of the Blackstone River) was not completely explained in the text. The FEIS has been modified to include additional information on this issue in Section 2.1.4.3. It should be noted that a water intake in Woonsocket is also not the closest Blackstone River location for the Sherman Farm Road site, but was selected after consideration of river flow conditions, aquatic effects, and regulatory complexity.

FA4-26 The comment on the virtues of dry cooling includes two misconceptions, that dry cooling could be utilized without negative noise impacts and that the need for water would be negated. As described in Section 2.1.4.3.3, dry cooling has an environmental downside to balance its advantages. First, dry cooling towers are physically much larger than comparable wet cooling towers, and would likely be more visible to area residents. Second, greater offsite noise effects may occur due to the increased number of fans required for dry cooling, even with engineering noise control techniques. Overall noise impacts at Ironstone would be somewhat less than at Sherman Farm Road, but would be a potentially significant issue. The nearest residence at Ironstone is 2,200 feet from the center of the plant site, compared to 1,200 feet at Sherman Farm Road. The total number of residences within 0.5 mile of the Ironstone site (23) is less than at Sherman Farm Road (40) (Table 2.1-26). The developing neighborhood west of the Ironstone site would be most significantly affected by additional noise of dry cooling, partially negating the benefit of greater distances to the nearest residence.

Most of the plant's water needs would be eliminated by the use of a dry cooling system. However, an offsite water supply would still be required for

"Ironstone is a good site, but is at some disadvantage because of the uncertainty of obtaining water supply from Rhode Island. A dry cooling system would avoid the issue. Based on the above considerations, Ironstone is the site with the least environmental impact." Third, as with the unresolved groundwater issue, we believe that FERC is obligated by the CEQ regulations to attempt to resolve the issue in this EIS; yet FERC has ruled that it is beyond the scope of the EIS to do so. As discussed above, we disagree with this approach.

26 cont'd

Fourth, the fact that it is unknown at this time whether Rhode Island would allow interstate transfer of water does not mean that the state would not approve it. All that it indicates is that FERC has apparently not sought resolution for purposes of the EIS.

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The third unresolved issue, project delays associated with sites other than OSP's, is a highly inappropriate basis for rejecting Ironstone, and reveals what we believe to be a serious flaw in the analysis. If, as is apparently the case, FERC regards all sites other than the one proposed by OSP as posing insurmountable problems due to the potential delays involved in acquisition, design, and permitting, the analysis is fatally biased since it leads to the rejection of all sites except OSP's. This renders the alternatives analysis a fruitless exercise contrary to the CEQ regulations and NEPA.

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W-29

2. The DEIS lacks an analysis of the environmental impacts associated with alternatives sites. The absence of the groundwater impact information at Ironstone is an example. The environmental impact analysis of alternatives is required by CEQ's regulations. Section 1502.14 states in relevant part that the EIS should "present the environmental impacts of the proposal and alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public"; and "devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits." Although the DEIS does provide a significant amount of general information about the alternatives and frank discussion of key issues, the absence of the detailed environmental analysis is a critical shortcoming. The shortcoming is highlighted by the fact that FERC points to the absence of this type of information (i.e., groundwater impacts and interstate water transfer issues at Ironstone) as a primary reason for not stating unqualified support for an alternative site.

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3. We are concerned that the Quaker Road site was rejected from final consideration since the DEIS indicates that it ranks higher than the applicant's preferred site. The EIS should explain FERC's rationale for eliminating this site, particularly in view of its many apparent advantages.

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boiler makeup water, NO_x control, and general plant use. The water requirement (0.75 mgd, 521 gpm, or 1.2 cfs) could probably not be met with onsite wells due to low yields. Withdrawal of 0.75 mgd from a pool on the Blackstone River in Massachusetts would be acceptable from a water quality and quantity standpoint. Consumption of the water upstream from the hydroelectric facility at Woonsocket would reduce power production by a small but significant amount and require compensation for lost power.

FA4-27 With respect to interstate transfer of water, FERC Staff has not stated in the DEIS that such transfer would be a "fatal flaw" or even a significant impairment to selection of the Ironstone site. As summarized in the revised Sections 2.1.6.4 and 5.1.2, the mechanism for such a transfer exists; Staff has discussed this matter with the Rhode Island Water Resources Board. There appear to be no technical or legal impediments to a transfer. However, there have been no recent instances of such transfers, and approval would presumably require a policy decision by the State. Thus, for the purposes of this EIS, the issue must remain unresolved.

FA4-28 The siting analysis performed by FERC Staff was conducted without consideration of present property ownership or the present status of design and permit approval on a particular site. Environmental issues, permittability, and cost were considered.

Project delays were not considered a basis for rejecting Ironstone or Bryant College in favor of Sherman Farm Road. However, this is one of many factors that should be considered in comparing sites. NEPA provides for an evaluation of economics, as well as impacts on the natural and human environment, in comparisons of alternatives. It is appropriate to include the economic impacts of delay in the summary discussion of the advantages and disadvantages of the three final sites.

OSP's desire to use property owned by one of its member partners, and its efforts undertaken in parallel to the EIS process to obtain permits and approvals for development of that property, also deserve mention in an EIS on OSP's proposal. Section 5.1.2 has been revised for the FEIS to incorporate newly-received data and to more clearly specify those considerations that were relevant to the siting evaluation process.

FA4-29 Comment noted; analysis of the environmental effects associated with alternative sites has been expanded and newly-received data have been incorporated in the revised Sections 2.1.4.5, 2.1.6, 5.1.2.

FA4-30 Please see the response to comment FA2-10. The Quaker Road site was evaluated and determined to have no identifiable advantages over the Ironstone site. Since Ironstone was superior to Quaker Road and was itself compared to Sherman Farm Road, there is no apparent advantage in comparing Quaker Road to Sherman Farm Road. Also note that the Quaker Road site is adjacent to the Ironstone site.

4. The discussion about the Algonquin pipeline alternative on p. 2-188 is very general and unpersuasive as to the reasons why this option is not clearly preferable. The use of Algonquin's existing transmission pipelines would eliminate the need for 11 miles of new pipeline construction and right-of-way. The DEIS states that the water quality and ecological impacts would not be significantly different than the proposed pipeline, but provides no analysis to support this conclusion. It also states that there would be significantly more residential impacts but does not explain why this is necessary or whether these impacts could be mitigated. We request that this discussion be expanded considerably and supported by analysis. 31

MITIGATION

As we stated in our comments on the preliminary EIS, we acknowledge FERC's effort to identify specific mitigation measures for the pipeline and power plant. The DEIS falls short of evaluating the effectiveness of the identified mitigation measures as is required by the CEQ regulations. Furthermore, to the extent that any identified measures are considered to be extra-jurisdictional or are not likely to be implemented or enforced, the EIS must adequately assess the inability to incorporate such mitigation measures through its preferred alternative decisional process. In this regard, while we applaud FERC's valient proposal to impose on the pipeline license a condition requiring compliance with the suggested power plant mitigation measures (mitigation measure #1, p. 5-11), it appears as currently worded to rely on OSP's voluntary compliance and the Economic Regulatory Administration's agreement to independently impose its own permit condition. Since the DEIS does not indicate either OSP's or ERA's views on this proposal, we are unable to evaluate its effectiveness. 32 33

This approach leaves unresolved the questions of how, when, and by whom mitigation relative to the power plant will be implemented and enforced. The CEQ regulations are clear in requiring that mitigation be implemented by an appropriate federal agency, whether or not it is by the designated lead agency in the NEPA process. 40 CFR Section 1505.3. Given the effect of FERC and ERA's involvement in the OSP project on the project's basic viability, we believe that there should be no issue involved here concerning jurisdictional limitations on either FERC or ERA's ability to incorporate all appropriate mitigation measures in the Records of Decision to be prepared for this project. We suggest that FERC and ERA address this issue in the EIS.

In conclusion, we believe that the Ironstone site and dry cooling technology would be environmentally preferable to OSP's proposal, and that the EIS needs a substantial amount of additional information and/or revision in the areas discussed above. Accordingly, we have rated this EIS EO-2 (environmental objections, insufficient information) in accordance with EPA's national rating system, an explanation of which is enclosed. 34

W-30

FA4-31 The Algonquin Alternative discussion has been expanded in FEIS Section 2.2.5.3 and a map indicating wetlands along the Algonquin alternative impact area has been added (Figure 2.2-21).

FA4-32 The mitigation discussion presented in Section Five of the DEIS has been revised for the FEIS to include additional discussion of effectiveness. The FERC Staff's recommended mitigation measures are much more than a valiant attempt to impose voluntary compliance by OSP or voluntary adoption of those measures by the ERA or the Rhode Island EFSB. If the mitigation measures are not implemented, the impacts of the Ocean State Power plant would be much greater. OSP and Tennessee have taken the position that the FERC has no authority to impose mitigation on the power plant. The FERC Staff disagrees with this concept and believes that if either the Rhode Island EFSB and/or the ERA do not impose these conditions, then the FERC could impose them as a condition to its authorization to Tennessee.

FA4-33 The questions of how, when, and by whom the power plant mitigation measures will be implemented and enforced cannot be resolved in this EIS. The Staff certainly believes that the Rhode Island EFSB, ERA, or the FERC, via Tennessee's certificate (most likely in that order) should impose the Staff's recommendations as conditions to their approvals. This subject cannot be resolved until the final approvals are issued.

FA4-34 Comment noted; revisions and modifications, as appropriate, have in Staff's opinion answered the objections.

FA4 (cont'd)

We would be pleased to discuss these comments with you at your convenience. Please feel free to call me at FTS 835-3414 (commercial 617/565-3414).

Sincerely,

Elizabeth Higgins Congram

Elizabeth Higgins Congram
Assistant Director for Environmental Review
Office of Government Relations and Environmental Review

W-31

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 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.

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
Atlanta GA 30333

March 22, 1988

FA5

Mr. Lonnie Lister
Project Manager, Environmental Analysis Branch
Office of Pipeline and Producer Regulation
Room 7312
825 North Capitol St., N.E.
Washington, D.C. 20426

MAR 24 1988

Branch

Dear Mr. Lister:

Thank you for sending the Draft Environmental Impact Statement (DEIS) for "Ocean State Power Project." We are responding on behalf of the U.S. Public Health Service. We have reviewed the document and have no comments to offer at this time.

Thank you for sending this document for our review. Please insure that we are included on your mailing list for further documents which are developed under the National Environmental Policy Act (NEPA).

Sincerely yours,

David E. Clapp

David E. Clapp, Ph.D., P.E., CIH
Environmental Health Scientist
Special Programs Group
Center for Environmental Health
and Injury Control

W-32

WRITTEN COMMENTS AND STAFF RESPONSES

STATE AGENCIES

In the Matter of Tennessee)
Gas Pipeline Company)
(Ocean State Power Project))

FERC Dockets CP87-131-001,
1988 APR -5 CP87-132-001

COMMENTS OF THE MASSACHUSETTS SITING COUNCIL
ON DRAFT ENVIRONMENTAL IMPACT STATEMENT SA1

The Massachusetts Siting Council requests the following clarification with regard to the Draft Environmental Impact Statement ("DEIS") prepared by FERC in the above captioned proceeding:

In its "Comments of the Massachusetts Siting Council on Preliminary Draft Environmental Impact Statement" in the above captioned proceeding, the Massachusetts Siting Council recommended that the DEIS consider the existing Algonquin Gas Transmission Company right-of-way through Uxbridge, Massachusetts as an alternative to the proposed oil pipeline route. The Massachusetts Siting Council, which made this recommendation on the basis of route length alone, has done no investigation of the environmental impacts of routing the oil pipeline along the existing Algonquin Gas Transmission Company right-of-way. Therefore, the Massachusetts Siting Council does not endorse this alternative route.

Accordingly, the Massachusetts Siting Council requests that the first sentence of the third paragraph in section 2.1.6.3 on page 2-122 of the DEIS be amended by striking the word "suggested," and inserting in its place the word "raised," such that the sentence reads: 1

> A third alternative (OP-3), raised by the Massachusetts Energy Facilities Siting Council staff, would be to tap into the Mobil Oil pipeline at its intersection with Algonquin's pipeline, about 0.6 miles northwest of Ironstone, Massachusetts.

Respectfully submitted,

MASSACHUSETTS ENERGY FACILITIES
SITING COUNCIL

By _____
Susan Fallows Tierney
Executive Director

April 5, 1988

W-34

SA1-1 Comment accepted; please see the revised Section 2.1.4.5.

S. RUSSELL SYLVA
Commissioner

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
Department of Environmental Quality Engineering
Division of Air Quality Control
One Winter Street, Boston 02108

SA2

April 22, 1988

RECEIVED BY
APR 27 1988
Environmental Evaluation Branch

Secretary
Federal Energy Regulatory Commission
825 North Capitol Street N.E.
Washington, D.C. 20426

Re: Docket No. CP87-132-001

Gentlemen:

The Division of Air Quality Control of the Massachusetts Department of Environmental Quality Engineering is submitting the following comments on the Draft Environmental Impact Statement for the proposed Ocean State Power Project to be located in Burrillville, Rhode Island. There are two areas of the proposed project that we wish to comment on.

First, the project will have substantial NOx emissions. Increases in NOx emissions are of concern to the Department for three reasons:

W-35

o NOx is a precursor to the formation of ozone. Massachusetts is not attaining the National Ambient Air Quality Standard for ozone. Massachusetts (and Rhode Island) is currently investigating additional strategies to come into compliance with the Standard. In Massachusetts, this includes, not only identifying additional volatile organic compound reduction measures, but also analyzing the role, if any, of NOx controls in our ozone control program, especially in the context of NOx:NMOC ratios and projected changes given projected regionwide and in-state increases in NOx emissions.

o NOx is a precursor to acid deposition. Massachusetts is undertaking an analysis of NOx emission trends to determine if there is a need for a NOx reduction program, comparable and complementary to the SO2 reduction program currently under development in accordance with the state-mandated acid rain control law.

o The Department has a one hour NOx guideline that allows for a concentration of 320 ug per cubic meter. The Department requires new large sources of NOx to comply with this guideline.

1

SA2-1 Comment noted; the issue of BACT is currently under review by the State of Rhode Island.

The Department is of the opinion that the NOx emission limits proposed do not represent Best Available Control Technology, and that a more stringent level should be chosen.

Second, the facility is so close to the state line that its noise emissions will impact Massachusetts residents. The proposed facility is not subject to the Department's noise regulation. However, sufficient information should be provided to show how noise emissions from the facility compare with the guidelines the Department uses for enforcing the regulation. We found the discussion of the noise impacts to be vague and misleading.

For background noise levels, instrumentation should be used that can determine L10, L50, L90, and Leq values for each hour. They should use an instrument that can read existing backgrounds, not just down to 43 to 44 dBA. A copy of the Department's noise regulation and the guideline used for enforcing the regulation are attached. Based on the limited information available in the DEIS, it appears the project may have a significant impact on residents near the facility.

2

Also, the DEIS says the nearest residents are 1200 to 3000 feet from the project property line. It is possible that new residenses will be built nearer the project during some point in Ocean State Power's effective life.

3

If you have any questions concerning these comments, please contact me at (617) 292 5630.

Very truly yours,

Barbara A. Kwetz

Bruce K. Maillet, Director
Division of Air Quality Control

cc: Lonnie Lister
Project Manager
Environmental Analysis Branch
Office of Pipeline and Producer Regulation
Room 7312
825 North Capitol Street N.E.
Washington, D.C. 20426

Douglas McVay
R. I. Department of Environmental Management
75 Davis STreet
Providence, RI 02908

SA2-2 Please see the response to comment FA4-19 and the revised Section 4.1.4.2.

SA2-3 Staff notes this comment.

DEFINITIONS: continued

SA2 (cont'd)

a certificate of rejection.

METAL CAN SURFACE COATING means the coating of two or three piece metal cans.

METAL COIL SURFACE COATING means the coating of any flat metal sheet or strip that comes in rolls or coils.

METAL FURNITURE SURFACE COATING means the coating of any metal parts which will be assembled with other metal, wood, fabric, plastic, or glass parts to form a furniture piece.

MISCELLANEOUS METAL PARTS AND PRODUCTS means farm machinery (harvesting, fertilizing, and plant machines, tractors, combines, lawn mowers, rototillers, etc.); small appliances; commercial machinery (compactors and auxiliary equipment, typewriters, calculators, vending machines, etc.); fabricated metal products (metal doors, frames, etc.); and any other metal parts or products which are coated under the Standard Industrial Classification Code of Major Groups 33, 34, 35, 36, 37, 38, and 39. This definition does not include automobiles and light duty trucks; metal cans; flat metal sheets and strips in the form of rolls or coils; magnet wire for use in electrical machinery; metal furniture; large appliances; exterior of airplanes; automobile refinishing; customized top coating of automobiles and trucks, if production is less than 35 vehicles per day; and, exterior of marine vessels.

MIST means any liquid aerosol formed by the condensation of vapor or by the atomization of liquids.

MOTOR VEHICLE means any equipment or mechanical device propelled primarily on land by power other than muscular power but does not mean railroad and railway engines and cars, vehicles operated by the system known as trolley motor or trackless trolley, or devices used for domestic purposes.

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAPS) means those standards adopted by the U.S. Environmental Protection Agency and contained in the Code of Federal Regulations, Title 40, Part 61, and subsequent revisions as specified in the Regulations. Any emission testing to be compared with NESHAPS must be conducted in accordance with applicable procedures as specified in said Code of Federal Regulations, Title 40, Part 61, or amendments thereto, or by another method which has been demonstrated to the satisfaction of the Department as being equivalent.

NEW SOURCE PERFORMANCE STANDARDS (NSPS) means Standards of Performance for New Stationary Sources adopted by the U.S. Environmental Protection Agency and contained in the Code of Federal Regulations, Title 40, Part 60, and subsequent revisions as specified in the Regulations. Any emission testing to be compared with NSPS must be conducted in accordance with applicable procedures as specified in said Code of Federal Regulations, Title 40, Part 60, or amendments thereto, or by another method which has been demonstrated to the satisfaction of the Department as being equivalent.

NOISE means sound of sufficient intensity and/or duration as to cause or contribute to a condition of air pollution.

NON-ATTAINMENT AREA means any area determined by the Administrator as one in which the ambient air concentration of a criteria pollutant exceeds a National Ambient Air Quality Standard.

ODOR means that property of gaseous, liquid, or solid materials that elicits a physiologic response by the human sense of smell.

7.09: continued

with twenty or more dwelling units, shall cause, suffer, allow, or permit emissions therefrom which cause or contribute to a condition of air pollution. Said person shall notify the Department in writing twenty days prior to the initiation of said construction or demolition operation. The twenty day advance notice period will be waived in the event of emergency demolition necessary to prevent a public health or safety hazard.

(3). No person responsible for an area where construction or demolition has taken place shall cause, suffer, allow, or permit particulate emissions therefrom to cause or contribute to a condition of air pollution by failure to seed, pave, cover, wet, or otherwise treat said area to prevent excessive emissions of particulate matter.

(4) No person shall cause, suffer, allow, or permit the handling, transportation, or storage of any material in a manner that results or may result in emissions therefrom which cause or contribute to a condition of air pollution.

(5) No persons responsible for any construction or demolition of a structure that contains friable asbestos material shall fail to comply with 310 CMR 7.09(2) and 310 CMR 7.02. (National Emission Standards for Hazardous Pollutants)

(6) No person shall cause, suffer, allow, or permit the operation of mechanized street sweeping equipment that is not equipped with a suitable dust collection or dust suppression system which is maintained in good operating condition and is operated continuously while the street sweeping equipment is in use to prevent conditions of air pollution.

(7) 310 CMR 7.09(1) through 7.09(4) and 7.09(6) are subject to the enforcement provisions specified in 310 CMR 7.52.

7.10: U Noise

(1) No person owning, leasing, or controlling a source of sound shall willfully, negligently, or through failure to provide necessary equipment, service, or maintenance or to take necessary precautions cause, suffer, allow, or permit unnecessary emissions from said source of sound that may cause noise.

(2) 310 CMR 7.10(1) shall pertain to, but shall not be limited to, prolonged unattended sounding of burgular alarms, construction and demolition equipment which characteristically emit sound but which may be fitted and accommodated with equipment such as enclosures to suppress sound or may be operated in a manner so as to suppress sound, suppressable and preventable industrial and commercial sources of sound, and other man-made sounds that cause noise.

(3) 310 CMR 7.10(1) shall not apply to sounds emitted during and associated with:

(a) parades, public gatherings, or sporting events, for which permits have been issued provided that said parades, public gatherings, or sporting events in one city or town do not cause noise in another city or town;
(b) emergency police, fire, and ambulance vehicles;
(c) police, fire, and civil and national defense activities;
(d) domestic equipment such as lawn mowers and power saws between the hours of 7 A.M. and 9 P.M.

(4) 310 CMR 7.10(1) is subject to the enforcement provisions specified in 310 CMR 7.52.

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING
DIVISION OF AIR QUALITY CONTROL

SA2 (cont'd)

FORM DDS-8 | DESIGN DATA SHEET FOR EQUIPMENT GENERATING NOISE

A | PLANS APPLICATION REQUIREMENTS

This Design Data Sheet is to be submitted together with Form DDS-3, **Design Data Sheet for Industrial and Commercial Facilities**, prior to the modification or the installation of equipment (such as diesel engines, electric generators, or turbines) which has the potential to cause a noise nuisance condition, or a submittal in response to a Department **Notice of Violation** citing a noise nuisance condition. See Form DDS-3 for further guidance.

B | PROJECT LOCATION

1. Name of facility: _____
2. Location of Project Site: _____

C | NOISE SOURCE

1. Description: _____
2. Indicate operating schedule:

   a. _____ hours/day; b. _____ days/week; c. _____ weeks/year.

3. Comments: _____

D | NOISE ABATEMENT EQUIPMENT

1. Manufacturer: _____; Model No.: _____
2. Describe type, location, performance characteristics: _____

E | FULL OCTIVE BAND ANALYSIS

THE FOLLOWING COMMUNITY NOISE PROFILES WILL REQUIRE THE USE OF SOUND PRESSURE LEVEL MEASURING EQUIPMENT IN THE NEIGHBORHOOD OF THE INSTALLATION.

1. Lowest AMBIENT Sound Pressure Levels During Operating Hours of Noise Source.

   a. At property line:

"A" Weighted	31.5	63.0	125	250	500	1K	2K	4K	8K	16k
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___

   b. At nearest inhabited building:

"A" Weighted	31.5	63.0	125	250	500	1K	2K	4K	8K	16k
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___

THE FOLLOWING NOISE PROFILES ARE REQUIRED ONLY FOR A SUBMITTAL IN RESPONSE TO A DEPARTMENT NOTICE OF VIOLATION CITING A NOISE NUISANCE CONDITION. APPLICATIONS FOR NEW EQUIPMENT CAN SKIP THIS SECTION AND GO AHEAD TO SECTION F.

2. Neighborhood Sound Pressure Levels with Source Operating without Abatement Equipment.

   a. At property line:

"A" Weighted	31.5	63.0	125	250	500	1K	2K	4K	8K	16k
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___

SECTION E IS CONTINUED ON NEXT PAGE

(Section E continued) SA2 (cont'd)

2. b. At nearest inhabited building:

"A" Weighted	31.5	63.0	125	250	500	1K	2K	4K	8K	16k
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___

3. EXPECTED Neighborhood Sound Pressure Levels after Installation of Noise Abatement Equipment.

a. At property line:

"A" Weighted	31.5	63.0	125	250	500	1K	2K	4K	8K	16k
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___

b. At nearest inhabited building:

"A" Weighted	31.5	63.0	125	250	500	1K	2K	4K	8K	16k
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___

The Department may request that actual measurements be taken after the installation of the noise abatement equipment to verify compliance.

F MANUFACTURER'S NOISE PROFILE ON NEW EQUIPMENT

THE APPLICANT MUST ATTACH THE MANUFACTURER'S NOISE GENERATION DATA FOR THE EQUIPMENT BEING PROPOSED FOR INSTALLATION. THIS DATA MUST SPECIFY THE SOUND PRESSURE LEVELS FOR A COMPLETE 360° TURN AROUND THE EQUIPMENT, AND AT VARIOUS DISTANCES FROM THE EQUIPMENT.

G PLOT PLAN

THE PLOT PLAN REQUIRED IN FORM DDS-3 MUST INCLUDE LOCATION OF THE NOISE SOURCE(S) AND THE DISTANCES FROM THE SOURCE(S) TO THE PROPERTY LINES AND THE NEAREST INHABITED RESIDENCES, AS WELL AS INDICATIONS OF POSSIBLE FUTURE CONSTRUCTION AREAS.

(Section E continued)

2. b. At nearest inhabited building:

"A" Weighted	31.5	63.0	125	250	500	1K	2K	4K	8K	16k
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___

3. EXPECTED Neighborhood Sound Pressure Levels after Installation of Noise Abatement Equipment.

a. At property line:

"A" Weighted	31.5	63.0	125	250	500	1K	2K	4K	8K	16k
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___

b. At nearest inhabited building:

"A" Weighted	31.5	63.0	125	250	500	1K	2K	4K	8K	16k
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___
___	___	___	___	___	___	___	___	___	___	___

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DDS-8 10/26/84 PAGE 3 OF 4

MASSACHUSETTS HISTORICAL COMMISSION
"A CommonWealth to Keep"

MAY 09 1988

April 25, 1988

Kenneth F. Plumb, Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, N.E.
Washington, DC 20426

SA3

RE: Ocean State Power Project, DEIR

Dear Secretary Plumb:

My staff has reviewed the Draft Environmental Impact Report submitted describing the proposed project referenced above. Review of this DEIR indicates that there is not sufficient information to review project impacts to archaeological or historic sites in the vicinity of the "Rhode Island Extension", Worcester County, Massachusetts.

We understand that an archaeological survey is underway on this portion of the project and look forward to seeing the results of this survey included in the FEIR. These comments are provided in compliance with Section 106 of the National Historic Preservation Act of 1966 (36 CFR 800), M.G.L. Ch. 9, s. 26-27C, as amended by Chapter 152 of the Acts of 1982 (950 CMR 71) and MEPA.

If you have any questions, please feel free to contact Peter Mills of my staff.

Sincerely,

Peter D. Mills

for: Brona Simon
State Archaeologist
Director, Technical Service Division
Massachusetts Historical Commission

cc: Bill Simmons, Tennaco Gas Transportation
Secretary Boyte, MEPA Unit, EOEA
Deborah Vrabel, FERC, CRM Office
Edward F. Sanderson, R.I. H.P.C.

BS/PM/di

W-40

1

SA3-1 Staff recommends that FERC condition Tennessee's certificate to require completion of necessary cultural resources survey work. Appropriate consultation will be carried out as required under Section 106 procedures.

STATE OF NEW YORK
DEPARTMENT OF AGRICULTURE AND MARKETS
1 WINNERS CIRCLE - CAPITAL PLAZA
ALBANY, NEW YORK 12235

DIVISION OF AGRICULTURAL SUPPORT SERVICES
518 457-7076

April 22, 1988

SA4

RE: FERC Docket No. CP87-132-001 Ocean State Power Project DEIS

Secretary,
Federal Energy Regulatory Commission,
825 North Capitol St., N.E.
Washington, D.C. 20426

Honorable Secretary:

This correspondence, with attachment, is submitted in response to the Commission's (FERC's) invitation for comments on specific environmental issues relative to the Ocean State Power Project Draft Environmental Impact Statement distributed by FERC subsequent to Tennessee Gas Pipeline Company's application.

This Department's comments apply to two issues of concern: 1) the absence of gas pipeline routing alternatives or deflections for looping where agricultural resource management concerns warrant avoidance; and, 2) construction and restoration mitigation practices relative to the agricultural lands which are not avoided. The comments regarding these particular aspects of the Draft EIS are provided in the attachment.

This Department hopes that the Commission in its review of Draft EIS concerns will give serious consideration to the comments and recommendations we are providing. We wish to emphasize that our comments are guided by less than satisfactory routing, construction, and rehabilitation experiences in recent as well as earlier years.

First, with regards to construction and restoration practices for agricultural lands affected by a transmission pipeline route, Tennessee Gas Pipeline Company (Tennessee), the same company submitting the Ocean State Power Project application, engaged in a FERC approved gas transmission looping project (on an east-west axis) through portions of central New York State. It was concluded in the mid 1980's. The practices applied by FERC and "accepted" by Tennessee in that recent case are about the same as the ones contained in the Draft EIS, Docket

(continued)

W-41

No. CP87-132-001. One of the most basic principles of agricultural mitigation, the separation of soil layers and substratum followed with the reconstruction of original soil profile (during backfilling) to help assure a rehabilitated vegetative root zone (and tillage freedom from the heavy substratum clays and waste rock), was fully ignored on looping in Madison County. The pollution of our glacial till crop soils with substratum clays and waste rock is vividly evident on that project's portion in Madison County, New York. Not only has the disregard for those basic standards rendered adverse impacts to the croplands and other fields of individual dairy farming operations but, as a result of the lack of mitigative deflection routing for such susceptible agricultural lands, the same project's disregard for the reconstruction of soil profile was rendered through the agricultural lands of the State University of New York Agricultural and Technical College at Morrisville. The minimum standards were not implemented.

Second, Niagara County (which contains the location of proposed Loop No. 1 for the Ocean State Power Project) is characterized by relatively flat terrain. Significant portions of the county's agricultural lands are comprised of naturally slow draining soils which are relatively shallow (30 to 36 inches) in depth over limestone bedrock. An earlier gas transmission pipeline which was constructed through Niagara County, approximately two decades ago, preceded the occurrence of mitigative routing deflections and construction/restoration practices as we know them today. That pipeline project, due to its long term adverse impacts on agriculture has been and continues to serve as one of the classic examples of worst-case damages inflicted to the agricultural resource base and to the application of soil and water conservation systems for farmland resource management. That pipeline is operated by Tennessee; and, that same pipeline right-of-way today is a significant segment of Tennessee's proposed Loop No. 1.

The design and installation of subsurface systems of drain lines as well as open outlet ditches requires detailed engineering and substantial financial investment. Since the effectiveness of drainage systems depends on their depth and their gradient for gravity flow, Niagara's inherent limestone bedrock is a very difficult and limiting factor with which man-made drainages must cope. Both the location and the construction of the earlier pipeline (noted above) have been clearly damaging to agriculture. The location was ill conceived because it failed to avoid or otherwise deflect from farm fields with significant drainage systems. The construction was poor because it: 1) destroyed the drain lines which were located across its path and 2) the processes of soil and rock excavation, and backfilling left the affected farms with extensive stone pollution and useless, compacted substratum materials as the final surface of the cropland. Although the soil resource destruction and waste-

(continued)

rock pollution was not rectified, farmers have since had their severed drainage lines re-engineered and reconstructed to cope not only with the inherent bedrock level, but with the diameter and depth of the existing gas transmission pipeline as well.

In citing these above cases it is not this Department's intent to put a negative image on the subject project proposal of the applicant. The purpose in apprising FERC of these recent and earlier impacts is to offer the factual reasons why the attached Draft EIS comments for the Ocean State Power Project are being submitted and why most serious consideration of the same is requested.

Thank you for the opportunity to offer these comments and recommendations.

Sincerely,

Kim Blot, Director
Division of Agricultural
Support Services

Attachment
cc: Malcolm Bishop, NYS DPS, Albany
Lonnie Lister, FERC project manager
Jeffrey Dietz, NYS DEC Region 9, Buffalo
Jeffrey Gregg, NYS DEC, Albany
John Lacey, NYS Agriculture & Markets
David Pendergast, NYS Soil & Water Conservation Committee, Albany

Attachment
Letter: Secretary, FERC
April 22, 1988

FERC Docket No. CP87-132-001
Ocean State Power Project
Draft Environmental Impact Statement
comments of
New York State Department of Agriculture & Markets

The comments of the NYS Department of Agriculture & Markets are limited to two issues of concern. They are:

1) the absence of gas pipeline routing alternatives (or deflections) for loops affecting susceptible agricultural lands in this State; and

2) construction and restoration mitigation practices relative to agricultural lands.

W-43

1. Alternatives or deflections for loops affecting agricultural resources:

The location of Loop No. 1, in Niagara County, as illustrated (Figure 2.2-2) and briefly described in the Draft EIS shows insufficient attention given to historic problems associated with right-of-way excavation projects in that area. Agricultural drainage systems; the inherent substratum below the agricultural land surface; and, town drainage systems (existing and planned) are important factors in land and water management in Niagara County. Relative to land and water resource management issues in Niagara County, the route for portions of Loop No. 1 is inadequate in that the proposed pipeline, through such portions, would exacerbate rather than minimize adverse impacts. 1

Clearly, the fact that a right of way for an earlier pipeline project "exists" should not be generally viewed as a "plus" for the location of another project, particularly when the earlier project due to its own environmental shortcomings was inadequately routed. Today's environmental standards and practices were sought, in part, due to the environmental mistakes of earlier 2

SA4-1 FERC Staff believes that environmental impacts can be minimized by utilizing the existing pipeline right-of-way for loop construction. The impacts of opening up a new pipeline corridor would be substantially greater than following the existing line.

SA4-2 The construction procedures outlined in the revised Sections 2.2.3.2 and 5.2.3 (Planned and Recommended Mitigation Measures) address, in general terms, procedures to be followed to prevent the problems associated with drainage and loss of soil fertility. More details are contained in Tennessee's Sedimentation and Erosion Control Plan.

project locations and practices. the Draft EIS should be revised to reflect this. It should demonstrate where portions of pre existing right-of-way have rendered such undesirable impacts to the resource base and to man's management and operation of that resource base that the expanded use and impacts of such portions should be avoided; not repeated and multiplied. 2 cont'd

This Department recommends that due to the chronic problems and inherent conditions in portions of loop No. 1 the Draft EIS be improved by including and finally selecting from two added options.

They are:

1) Determining alternative locations for deflecting portions of loop No. 1 off of the intensive agricultural operations, by working in close conjunction with the Niagara County Soil & Water Conservation District, the NYS Dept. of Public Service and others; and others 3

2) Assigning a larger size of pipeline, adequate to handle Tennessee's project needs and those of others being applied for (utilizing the same gas source) and determining a route which can cope with such a combined applicant facility, avoiding additional pipelines through that region. 4

Referring to Draft EIS discussion and illustration of loop 5 (Madison County) on pp 2-138, 2-162, and 2-163 the original and alternative routes identify warranted concern for the wetland resource. The loop 5 Alternate, however, falls short of the fuller environmental good that it could accomplish when its centerline for the NE-SW axis is located approximately 500 feet east of the roadway, through the upper portions of respective agricultural fields. Consideration should be given to a more eastern shift of that leg, downhill to the edge of woods to avoid pipe trenching through the fields. 5

2. Construction and mitigation practices relative to agricultural lands.

The Draft EIS discussion on "Drainage Tiles" (4.2.1.4.1) is a generally adequate description of potential relative impacts and a basic title repair technique. One significant point which this Department stresses however, is that 6

W-44

SA4-3 Staff considered alternatives, but determined that following the existing line would cause the least impact. Alternative routes would be significantly longer.

SA4-4 Please see the response to comment SA5-1.

SA4-5 For several reasons identified in Section 2.2.5.1, and as stated on page 2-177 of the DEIS, Staff does not believe that the alternative to loop 5 is significantly superior to the proposed route.

SA4-6 Staff has considered alternatives to the proposed route of loop 1 and determined that paralleling the existing pipeline, as proposed, would create the least environmental impact. As noted in Tennessee's erosion control plan, drain tiles affected by pipeline construction would be inspected and repaired prior to backfilling the pipeline trench.

in such areas as portions of proposed Loop 1, where drainage is intensive, extraordinary consideration should be given to the routing avoidance or deflection measures noted earlier; rather than "blanket acceptance" of routing through any areas of drain lines with the inaccurate assumption that they and the disturbed lands can simply be repaired and restored. This EIS improvement recommendation, clearly, is not intended to apply to "all farmland" in all project loops in New York State. It is quite simply limited to site-specific situations and conditions such as those characterizing portions of Loop No. 1. 8 cont'd

The Draft EIS discussion on Soil Structure (4.2.1.4.2) relative to farmland crossed by the (proposed) pipeline is not fully accurate. A significant amount of the potentially affected farmland under cultivation does not have a gravelly (well drained) subsoil — but rather dense subsoils, and-or a shallow depth of soil over bedrock which would be excavated and ripped or blasted. 7

Stripping of a minimum of about eight to ten inches of the upper soil is recommended, and even deeper stripping is appropriate wherever recommended by respective Soil and Water Conservation Districts. 8

In addition to ponding of water as described in the Draft EIS discussion, "water piping" (or underground interception and funnelling of water down the re-filled trench) is a potential problem of any pipeline through farmland in this State depending on basic factors of terrain and soil. Disruption of the natural subsurface drainage, and the occurrence of "blowouts" when the water following a buried pipeline re-surfaces and damages croplands and farmstead operations should be rectified during planning and construction by the judicious placement of "trench dams" (or pipe collars), particularly where affected landscape exceed the level to slight-slope condition. 9

Concerning soil wetness and the effects of rutting, the Draft EIS covers part but not all of the relative concerns. The stripping of the topsoil off of cultivated fields for the areas of trench and immediate construction is not represented in Figure 2.2-13 (p. 2-149). Page 4-68, however, "suggests" this (near the end of the top paragraph) by stating "... damage to the soil structure below the plow layer in most well-drained soils would be less likely because the 10

SA4-7 Comment accepted; please see the revised Section 4.2.1.4.2.

SA4-8 Staff has recommended that topsoil be segregated in all cultivated and wetland areas. The appropriate depth of stripping will be determined by Tennessee on a site-specific basis, considering recommendations from local soil and water conservation districts that will be requested by the pipeline company.

SA4-9 Please see the discussion of construction procedures in the revised Section 2.2.3.2.

SA4-10 As noted in the response to comment SA4-8, Tennessee will segregate topsoil for ditch-line excavation in all cultivated areas. The construction right-of-way will be restored using plows, disking, and reseeding with appropriate seed mixtures.

subsoil would be dry enough to support construction vehicles". Not only does the actual extent of prescribed topsoil stripping need to be clarified, but clear reference needs to be included concerning the widespread occurrence of cultivated soils which are imperfectly drained (e.g. Niagara County and Madison County as well as others). 10 cont'd

Where the Draft EIS notes (on p. 4-68) that this Department "recommends" construction in farmland be curtailed "wherever" soil is too wet, some response is needed. More fitting, perhaps, would be "curtailment of construction" as this Department's "preference", particularly on a project of intermittent loops, rather than a lengthy project of continuous segments each involving new construction. 11

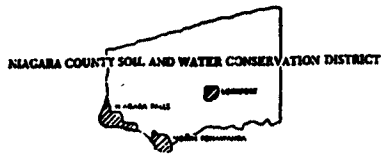
A critical shortcoming of the Soil Structure portion of the Draft EIS is its lack of restoration mitigation to alleviate the overall soil compaction (related to but different from rutting) caused by the project work across affected farmlands. The EIS should be improved to include the rehabilitation procedure to be implemented (during minimal soil moisture) for alleviating soil compaction by: 1) using deep shank subsoilers and-or paraplows in the exposed breadth of subsoil before upper soils are replaced, and 2) repeating the subsoiling or paraplowing again after upper soils are replaced to help achieve final restoration to a satisfactory level. This actual method of physical mitigation, rather than a cosmetic option such as "recommending that a farmer re-plant the affected area to a rotation of deep rooting alfalfa legume", is recommended particularly due to the "corridor" configuration of such lineal projects as pipelines across various alignments of farmlands. 12

The Department of Agriculture and Markets will be pleased to undertake discussions and offer cooperative assistance concerning mitigation information at any time.

A copy of the December 8, 1987 correspondence of the Niagara County Soil and Water Conservation District relative to land resource issues and concerns is appended for reference.

SA4-11 Staff notes this comment.

SA4-12 Tennessee's right-of-way rehabilitation measures would include the use of chisel plows to break up compacted subsoil, disking, then reseeding with appropriate seed mixtures. The pipeline construction procedures described in the revised Section 2.2.3.2 now include these activities.



COPY

SA4 (cont'd)

4487 LAKE AVENUE
LOCKPORT, NEW YORK 14094
TELEPHONE: 434-4949

December 8, 1987

REF.DOC CP87-132-000
Ocean State Project
Tennessee Gas Pipeline Project

Ms. Lois D. Cashell
Federal Regulatory Commission
825 N. Capital NE
Washington, DC 20426

Dear Ms. Cashell:

The Niagara County Soil & Water Conservation District would like to voice a few concerns we have with the proposed Tennessee Gas Pipeline Project that we feel needs to be watched during construction and reclamation work. The following we feel need to be addressed:

W-47

1. Time of Construction: Our soils here in Niagara County are very susceptible to compaction during wet weather, which affects drainage, air movement in the soil and ultimately causes lower crop yields. We suggest the construction be limited to the summer months for example May through the end of September.

   We also suggest that as part of the reclamation process the soils be subsoiled or deep ripped to break up any compaction layer over the pipeline and construction right-of-way.

2. Soil Placement Over the Pipe: Our topsoil is very thin throughout the county, usually 6" to 12" deep. The A and B soil horizons are very valuable to our farming needs and thus need to be saved.

   We suggest that the pipeline trenching be double trenched to save out the A & B soil horizons. The top 2 feet of soil should be trenched first and saved separately from the subsoil. Then when the soil is placed back over the pipeline the subsoil should be placed first with the A & B horizon soils placed on top separately. Do not mix topsoil horizons with the subsoil.

3. Rock Problems: Some of the area that the pipeline goes through will be shallow to bedrock. Past experiences with these pipelines is that they were not placed deep enough in rock areas so that normal farm practices such as plowing or drainage can be done. Also rock fragments or large boulders were left on the soil surface.

   We suggest that the pipeline be placed in all agricultural areas, including hay land and pastures, a minimum of 48" of cover over the pipe to allow for normal farm practices and drainage needs. That any large rocks of significant size be disposed of by burying, hauling away to hedgerows or woodlots or by other suitable means. They should not be left in the fields.

4. Drainage: Drainage is a very important practice in our county and many of the farms have extensive drainage systems, including surface and subsurface drainage systems. These can be severely damaged or lost during construction if care is not used by the contractors.

   We suggest the following:

   1. That all pipelines under existing drainage ditches, be it, large systems or small, on farm ditches or town ditches, be buried at least 48" or more to allow for future maintenance practices that are carried out by many communities annually.

   2. That during construction particular attention be made for subsurface drainage systems and that proper repair procedures be followed. The contractor should locate and watch for these underground tile systems before construction and during construction. Landowner contact will need to be made for easier location of these lines or check with our office records.

   3. That during reclamation procedures, these drainage systems be regraded and shaped to the original condition or improved.

5. Erosion Potential: The area that the pipeline is planned does have some erosion potential. We suggest that good erosion control procedure be followed during construction and reclamation.

6. Revegetation of Site: After all disturbance activities are completed, these areas be seeded down to suitable grass and legume mixtures that fit the particular soil type, drainage conditions, growing conditions and landowners preference.

   To improve growth potential of these sites lime and fertilizer should be used. Seeding should be done as the project progresses and not wait to do it all at once. Also all seeding activities should be completed by September 15th. If later that it should be accompanied by a nurse crop of either winter wheat or rye grass but no later then October 15th.

7. Disposal of Trees and Brush: This needs to be done according to landowners desires.

8. Crop Damage: To reduce potential crop damage landowners should be made aware, well in advance of planting time, of the location of the pipe, right of ways and access routes. This can reduce frustration for the landowner and cost to the Gas Pipeline Company.

These are our major concerns for the agricultural community. Our office would gladly meet with the pipline representatives to discuss these concerns and address them. Maybe some arrangements can be made

for our office to develop plans to reduce these concerns and make landowner contacts for the Gas Pipeline Company. Our office has a very good rapport with many of the landowners in the county and can address their concerns correctly.

Thank you for your time and please consider our concerns and request when developing and reviewing the construction plans and reclamation procedures.

Yours In Conservation,

Richard Tillman
District Manager

RT:sb

CC: John Lacy, Ag & Markets
Steve Doleski, NYS DEC

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233

Thomas C. Jorling
Commissioner

April 25, 1988

Lois D. Cashell
Acting Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, N.E.
Washington, D.C. 20426

RE: Docket No.'s CP 87-131-001
CP 87-132-001

SA5

Dear Acting Secretary Cashell:

The State of New York Department of Environmental Conservation ("DEC") has reviewed the Federal Energy Regulatory Commission's Draft Environmental Impact Statement ("DEIS") for the Tennessee Gas Pipeline Company's Ocean State Power Project ("OSP") application in the above referenced dockets. In New York State this application involves the construction of four loops of 30 inch diameter natural gas pipeline totalling 21.1 miles in length; the expansion of a new meter station; the permanent operation of two existing compressor stations, including additional compression at one of those stations; and, the construction of a new compressor station. Our comments and concerns are presented below.

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1. Currently before FERC in Docket No. CP 88-94-000, National Fuel Gas Company has an application to construct a natural gas transmission line along the right-of-way of which Loop 1 of OSP will become a part. The National Fuel proposal would connect with Tennessee at Wheatfield, New York. The application of National Fuel should be analyzed in conjunction with the current application to determine whether or not these can be combined. 1

2. The DEIS, lacks the following information, needed to enable comprehensive review of the project.

a. Location maps for resources and critical areas such as regulated wetlands, landfills, hazardous waste sites, and significant habitats, 2

b. A description of existing and proposed compressor station equipment;

c. An analysis of loop routing selection and possible alternatives; and,

d. Construction-related controls such as construction liability, environmental inspectors, landowner input, etc. 3

SA5-1 The referenced National Fuel Gas Company application (Docket No. CP88-94-000) is part of the TEMCO Project, which is currently under review by the FERC Staff. In its environmental analysis of the TEMCO Project, Staff will consider alternatives to the proposed facilities. These would involve either rerouting the proposed 24-inch-diameter National Fuel pipeline parallel to the Tennessee pipeline, or the possible option of moving the gas through Tennessee's pipeline. Staff notes that, on the basis of a preliminary modeling analysis, the 30-inch-diameter pipeline proposed as Loop 1 in Tennessee's project would be capable of transporting the proposed TEMCO volumes without being looped again. Therefore, approval of Tennessee's Loop 1 as proposed would not adversely affect consideration of that pipeline as part of an alternative to the National Fuel proposal.

SA5-2 Staff has added this information to the FEIS so far as has been practical.

SA5-3 Comment accepted; please see revised Section 2.2.3.2.

3. As for general mitigation of impacts incurred as a result of this project, the DEC concurs, generally, with FERC staff's recommendations set forth in the DEIS and offers the following additional recommendations and clarifications:

a. The total right-of-way (both construction and permanent rights-of-way) through regulated wetlands and designated floodplains should be allowed to revegetate completely, including woody vegetation. The main purpose for maintaining a cleared right-of-way is related to physical encroachment by future development. By their nature, wetlands and floodplains are effective barriers to such encroachment and the significent general environmental benefits of allowing their total revegetation appears to far outweigh those of maintaining a cleared right-of-way. 4

b. Going beyond FERC's recommendation, the DEC recommends (like Massachusetts and Rhode Island) no herbicides or chemical growth retardants be used on the rights-of-way and that upland rights-of-way be maintained manually/mechanically over a two to seven year cycle. Further seasonal nesting activity should be considered in timing the clearing. 5

c. The rights-of-way which cross perennial rivers and streams classified C(t) or better should be left in a vegetated condition for a distance of 100 feet from each stream bank, until no more than seven days prior to the actual stream crossing. Large trees can be cleared before that time. 6

d. The concrete coating of pipe should not take place within 100 feet of any stream, river or wetland. 7

e. In addition to segregating wetland soils, the same should be done for cropland soils. Consideration should also be given to rerouting in cropland areas possessing shallow bedrock and tile fields. 8

f. The applicant should specifically be directed to contact our Department's Regional offices for approval of plans to conduct hydrostatic testing. Names and telephone numbers of Regional staff can be provided from my office. 9

4. As for site-specific concerns, the DEIS does not adequately address the adjustment in proposed routing of Loop 1 around the former Lewiston landfill, nor does it detail any studies or assessments made of the landfill, particularly concerning groundwater contamination and groundwater movement. Until this information is made available, DEC cannot adequately determine the acceptability of this segment of Loop 1. 10

5. Loop 5, particularly that section crossing Nelson Swamp, clearly requires special attention. As you are aware, New York State is proceeding toward acquisition of parts of this wetland as an area of Unique Character, due to its rich biological diversity including some documented rare plant species. Once these lands are acquired, the subsequent conveyance of any 11

W-50

SA5-4 The NYDEC statement is incorrect for the following reasons: (1) Rights-of-way are legally defined areas where development restrictions are imposed; the presence or absence of vegetation in the right-of-way has no bearing on this. (2) The reason woody vegetation is kept from the right-of-way is to prevent damage from root systems to the pipe, pipe coating, and cathodic protection and to provide access for maintenance and monitoring activities. (3) Flood plains and wetlands are not barriers to development; that is why there are so many regulations established to protect them.

SA5-5 Reducing the use of pesticides, including herbicides, is currently a national priority, the subject of considerable Congressional attention, and FERC Staff supports this where practical. However, in hindsight Staff does not believe this FEIS, which addresses one project, is the appropriate regulatory tool for restricting maintenance activities along existing Tennessee Gas pipeline rights-of-way. Please see the response to comment GIC10-5.

SA5-6 Tennessee proposes to maintain a 50-foot buffer between its staging areas and any trout streams unless terrain conditions make this impractical. New York may impose stricter requirements on its stream-crossing permits if deemed necessary.

SA5-7 Please see the response to comment SA5-6; the general buffer zone would also apply to pipe coating.

SA5-8 Please see the responses to comments SA4-8 and SA4-6.

SA5-9 The need for these approvals was identified as one of Tennessee's responsibilities in Table 1.3-1 of the DEIS.

SA5-10 Please see the revised Section 3.2.5.1.3.

SA5-11 Only two plants are currently State-listed as rare. The botanist would consult with appropriate State agencies prior to surveying the right-of-way. Please see the revised Section 4.2.5.3. The FERC Staff's intent is to minimize the impact of the proposed construction on any State-listed species. A comprehensive botanical survey is outside the scope of this EIS since no information has been provided that suggests other protected species may occur in the area. Winter construction is unlikely.

part of them may require a legislative action or, if given constitutional protection, the approval of two successively elected legislatures. Considering the significance of the Nelson Swamp area and the intended protection being planned, every effort should be made to minimize impacts to this area. For this reason we agree, in part, with FERC's proposal that the wetland be studied and surveyed prior to any construction. Beyond FERC's recommendations, we feel the survey should be botanically comprehensive and not just for the three listed plant species. Furthermore, the botanist(s) conducting the survey should work in close consultation with foresters from our Division of Lands and Forests' office in Sherburne, New York as well as with the Nature Conservancy, the State University College of Environmental Science and Forestry at Syracuse, New York and the Biological Survey Unit of the State Education Department. Consideration should also be given to having the applicant study the Nelson Swamp right-of-way for its use as a deer wintering area or else preclude this area from any winter construction. 11 cont'd

The Nelson Swamp Bypass Alternative does not offer a significently less impacting alternative, particularly considering the added length and number of stream crossings. If due consideration is given to the above mentioned concerns and recommendations, the DEC feels the original route proposal, which follows Tennessee's existing right-of-way, can be adequately mitigated. 12

A point of clarification is necessary concerning the plant to which the DEIS refers as "rain orchis (Habenaria sp.)" We believe the intended reference is actually the whole genus of Habenaria orchids sometimes referred to as the Rein orchis, or what is commonly referred to as the fringed orchid. 13

6. The DEC concurs with all of FERC staff's recommendations regarding the timing of construction of Loop 6. Furthermore, we reemphasize the need to follow a northerly route through the wetland associated with Papscanee Creek (page 2-164 of the DEIS). 14

7. Tennessee's Wetland and Water Crossing Plan (October, 1986) for this case is extremely vague and non-committal as to when it will employ particular practices. Every "when possible", "where possible", "as possible", "whenever possible", "as necessary", "may", and "in such manner" should be replaced with a clear recitation of the general circumstances under which such practices shall be employed. Since Tennessee would be constructing adjacent to its own right-of-way along most of its proposed routing it is reasonable to expect them to declare what practices they plan to utilize, including intended stream and wetland crossing techniques. Likewise, timeframes for implementing those practices in the plan are vague or not addressed at all. 15

B. As mentioned earlier, the DEIS is lacking the specific information on compressor station equipment necessary to fully evaluate their environmental impacts. While the proposed units are small enough that PSD (prevention of significant deterioration) permits would not be necessary under the circumstances, the combined NO_x emissions for all the stations is considerable and plans to control those emissions should be considered. 16

SA5-12 Staff agrees with this comment.

SA5-13 Current information is that Habenaria are no longer State-listed. Please see the revised Sections 2.2.5.1, 3.2.5.3, and 4.2.5.3.

SA5-14 Staff agrees with this comment.

SA5-15 Wetland and water crossing construction procedures are described in the revised Section 2.2.3.2. The duration ("timeframes") for implementing these procedures will vary widely with the conditions and circumstances encountered with each crossing, and cannot be addressed except in the general terms used in this FEIS. The Staff believes that the Plan adequately outlines the proposed procedures. Additional details on Tennessee's proposed mitigation measures and Staff's additional recommendations are discussed in various portions of the FEIS text.

SA5-16 It is unclear why the combined NO_x emissions from all compressor stations should be considered together. Each station is considered (by EPA) to be a separate facility for permitting purposes and no interactive effects of compressor station emissions are expected to occur at any location.

We appreciate the opportunity to again comment on this application and look forward to reviewing and commenting on the Final Environmental Impact Statement. If we have raised issues that need further clarification we hope that you will not hesitate contacting us.

Sincerely,

Jeff Gregg
Senior Environmental Analyst

cc: L. Marsh
L. Concra
R. Harvey
M. Gerstman
K. Silliman

bcc: Chad Covey
Jeff Deitz
Al Coburn
Dave Stout
Russ Twaddell
Nate Tripp
Jim Economides
Dick Popp
John Cole
Herb Sodher
Andy Davis, DPS
Russ Lura, Madison County Planning Dept.

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UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

SA6

Tennessee Gas Pipeline Company	)	Docket Nos. CP87-131-001
	)	CP87-132-001

STAFF COMMENTS OF THE DEPARTMENT
OF PUBLIC SERVICE
OF THE STATE OF NEW YORK ON
DRAFT ENVIRONMENTAL IMPACT STATEMENT

APR 2 1988

Branch

Pursuant to the Commission's public notice issued in the captioned proceeding the Department of Public Service of the State of New York (New York) hereby submits its comments on the Ocean State Power Project Draft Environmental Impact Statement prepared by the staff of the Federal Energy Regulatory Commission.

This proceeding involves an application by Tennessee Gas Pipeline Company (Tennessee) to provide 50,000 Dt of firm transportation service for Ocean State Power from the United States Canadian border near Niagara, New York to the facilities of Ocean State Power in Burrillville, Rhode Island. In order to perform this transportation service, Tennessee seeks authority in Docket No. CP87-132-000 to construct approximately 33 miles of 30" pipeline looping, 28 miles of which is proposed to be constructed in New York, and in Docket No. CP87-131 Tennessee seeks authority to increase the capacity of its Niagara Spur Line, located entirely within New York, by adding additional compression and increasing the operating pressure. Thus,

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SA6 (cont'd)

although the instant proceeding does not involve service to New York consumers, the Public Service Commission of the State of New York has a substantial interest in this project due to the fact that the vast majority of facility construction related to the proposed services would occur within New York.

1. New York staff notes that Tennessee has not yet sought the necessary regulatory approvals from the Public Service Commission of the State of New York relating to facility construction proposed in New York. In this respect, Table 1.3-1, entitled "Environmental Permits and Approvals Required for OSP Plant and Related Pipeline System Improvements," at pages 1-4 to 1-7 of the FERC Staff DEIS does not refer to the Public Service Commission of the State of New York and the Certificate of Environmental Compatibility and Public Need required under Article VII of the Public Service Law, Section 120, et seq., which is the only State regulatory approval needed for the facilities to be construction and operated within the State of New York. In addition, Table 1.3-2, "Relevant Federal and State Regulations Affecting the Proposed Project" neglects to mention the Article VII Certificate of Environmental Compatibility and Public Need for major utility transmission facilities and its implementing regulations (16 NYCRR Parts 85, 86 and 87). 1

2. New York DPS staff is currently reviewing an Article VII proposal by National Fuel Gas Supply Corporation (National Fuel) in NYPSC case 88-T-022 (FERC Docket CP88-94-000) to construct facilities over a route which corresponds, in part, 2

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SA6-1 Comment accepted, please see the revised Tables 1.3-1 and 1.3-2.

SA6-2 Please see the response to comment SA5-1. Additionally, FERC Staff reviewed alternative routes for Loop 1 that avoided all wetlands encountered by the proposed route. These routes were not deemed practicable because of their increased length and cost, and greater sociocultural and environmental impacts. Staff believes that parallel looping along the existing Niagara Spur Line creates the least environmental impact of possible alternatives reviewed.

with Loop 1 of Tennessee Gas' Niagara Spur project. National Fuel's proposal is to transport gas on the same line as the Tennessee proposal at the Niagara River, to a point on Tennessee's right-of-way at Beer Road, before changing direction to a southerly route (M.P. 230B-106+8.34 to approximate M.P. 230B-105+6.0).

Although, at this stage, no determination has been reached as to which route is environmentally preferable, the New York staff will coordinate its review among several projects in the area. Considerations under review include combining rights-of-way and facility construction to mitigate any potential environmental impacts. No discussion of alternative routes for Loop No. 1 appears in the DEIS. Accordingly, New York staff suggests that FERC staff give further consideration to potential alternative routes in connection with Loop No. 1. 2 cont'd

3. New York staff suggests that the Nelson Swamp located on Loop 5 can and should be avoided by the routing alternative identified in Figure 2.2-15. Long-term impacts to "Imperiled" and "Critically Imperiled" species, as well as to the "rare natural community" at this location readily can be avoided by routing outside the wetland. 3

SA6-3 For the reasons discussed in Section 2.2.5.1, Staff does not believe the alternative route is preferable.

4. The discussion on page 4-80 regarding Permanent Operation Noise, Section 4.2.4.2, refers to "Noise guidelines/recommendations set by New York and Massachusetts in Section 3.2.4.5". This section cannot be found in the DEIS and inadvertently may have been omitted. In any event, Tennessee has 4

SA6-4 Comment accepted, please see the revised Section 3.2.4.5.

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SA6 (cont'd)

not yet submitted its application to the New York Public Service Commission for approval of its proposed compression facilities. New York reserves its right to comment on noise guidelines and recommendations upon review of Tennessee's Article VII application. 4 cont'd

The discussion in Section 4.2.1.4 on Soils (including Drainage, Soil Structure, Erosion and Re-vegetation) and Section 4.2.6 on Sociocultural Resources (including disruption of farming activities) neglects to provide any discussion of construction impacts on surface drainage. The topography of Loop 1 is such that slight disruption of surface grade or subsurface drainage patterns can have significant adverse effects on areas well beyond the right-of-way. Consideration should be given to large-scale drainage influences and mitigation needs. Also, compensation for damaged crops or reduced crop yields due to drainage problems created by construction should be considered. 5

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SA6-5 Tennessee's proposed construction and restoration procedures include returning contours to original condition or to a condition considered an improvement. Please see the revised Section 2.2.3.2. The FERC Staff believes that the impacts would not be significant.

SA6 (cont'd)

Respectfully submitted,

THE STAFF OF THE DEPARTMENT
OF PUBLIC SERVICE OF THE
STATE OF NEW YORK

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Its Attorneys

April 25, 1988

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CERTIFICATE OF SERVICE

I, David D'Alessandro, do hereby certify that I have this day served a copy of the foregoing document by first class mail, postage prepaid, upon all interested parties in this proceeding.

David D'Alessandro

Washington, D.C.
April 25, 1988

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
OFFICE OF ENVIRONMENTAL COORDINATION
9 Hayes Street
Providence, R.I. 02908-5003

SA7

April 22, 1988

Mr. Lonnie Lister, Project Manager
Federal Energy Regulatory Commission
Environmental Analysis Branch, Room 7312
825 North Capitol Street, N.E.
Washington, D.C. 20426

RE: Ocean State Power Project
Draft Environmental Impact Statement Comments

Dear Mr. Lister:

The Department of Environmental Management has had the opportunity to review the Draft Environmental Impact Statement (DEIS) document prepared for the referenced project. The document has responded to most of our earlier comments, but fails to provide detail on some specific issues previously identified, or noted in this review.

We have provided a listing of comments on the DEIS document by specific page reference noting our concerns or request for clarification. Also attached are the Department's comments relative to the overall project status which was presented at the April 14, 1988 Public Hearing. The focus of the Department's concerns have been placed in the area of various unresolved water issues, and alternatives to avoid or minimize impacts. The need for greater detail on other potentially impacted resources including mitigation has been noted as follows.

W-58

Page	Detailed Comments	
1-3 and 1-17	Since the DEIS evaluates impacts resulting from the implementation of both Units 1 and 2, it would be appropriate to also address fuel requirements needed to supply both units. Dependent upon the source of the fuel supply, additional impacts may result.	1
1-5,6,12 and 13	The correct references to RIDEM and the responsible regulatory divisions should be made in Tables 1.3-1 and 1.3-2.	2
2-25	It is noted that the proposed combined-cycle plant would have a construction time of 2 to 2.5 years. This would indicate that earlier statements (page 1-14) describing the date for commercial operation of the first phase in November 1989 are inaccurate. Other references to the proposed schedule (page 2-47) should also be updated to reflect the actual schedule being followed.	3
2-33	Where is the fixed solids water to be discharged to? The pretreatment system?	4
2-39 through 2-41	The zero discharge system may have times of failure which will require a back-up system. Three proposals to back-up the EDR system are identified on page 2-41, but are considered inadequate by the Department since the first two unrealistically assume a failure will be corrected in several hours, while the last option does not consider how a failure would be handled during periods of full operation. Also unanswered are questions relating to where the overflow discharge would be directed (surface or groundwater) during system failure. Water requirements would increase in the event of system failure, raising the issue of where would this increased volume of water come from and ultimately discharge to, since the leachfield can only hold several hours volume of makeup water. Potential impacts to groundwater aquifers should be identified	5
2-44	Details of on-site handling and storage of hazardous waste and compliance with regulations should be identified.	6
2-62	Is it realistic to evaluate all candidate sites under the same requirements (i.e. if located in an industrial area would the need for an additional 25 acre buffer zone exist) of the proposed Burrillville location?	7

SA7-1 Comment noted; please see the response to comment FA2-2.

SA7-2 Comment accepted; please see the revised Tables 1.3-1 and 1.3-2.

SA7-3 OSP has provided Staff with an updated construction schedule. Section 2.1.3.7 has been revised accordingly.

SA7-4 The cooling tower blowdown, continuously discharged to maintain a fixed solids concentration, would flow to the wastewater equalization tank, and then through a sand filter, electrodialysis reversal, evaporator/crystallizer, and centrifuge. Dry solids would be disposed and the recovered water would be used as part of the cooling tower makeup water. None would enter the pretreatment system.

SA7-5 As stated, the applicant has presented three alternatives should the EDR system fail. Should none of these alternatives provide sufficient time for EDR repair, the applicant has stated that power plant operation would cease. Thus, no unauthorized discharge of waste waters from the plant is anticipated. For this reason, water requirements would not increase in the event of system failure. Thus, there are no anticipated impacts to ground-water aquifers resulting from system failure.

SA7-6 Onsite handling and storage of hazardous waste at the OSP plant would be in accordance with RCRA regulations. For the type and limited quantity of materials anticipated to require such handling (approximately 2 tons per day), the procedures would be straightforward. The text of the Solid Waste discussion (Section 2.1.3.2.5) has been revised in the FEIS to reflect additional information from OSP.

SA7-7 Staff believed that the need for flexibility in plant layout and design made it unrealistic to identify sites for a new power plant that had only the minimum surface area to accommodate the facility. Among other reasons, this could seriously constrain mitigation measure design and implementation. Staff acknowledges that a 25-acre buffer zone may have been somewhat larger than necessary. The siting study site size criteria did not preclude the identification of suitable sites for comparison with the applicant's proposed site, however. Several industrial park sites with the requisite acreage were identified.

2-76	What would the noise impacts be at the proposed Burrilville site with a dry cooling system? Would more buffer area be required?	8
2-88	Statements that "it has already been determined that sufficient water exists in the Blackstone River at Woonsocket to supply the water needed for the two-unit facility" may be premature since it currently appears that conditions will be stipulated for this withdrawal as proposed. Assumptions concerning available water supply for alternative plant sites may be inaccurately represented.	9
2-110	Use of a ten percent limitation for water withdrawal needs to be substantiated.	10
2-110 through 2-114	Greater examination of water supply alternative needs to be provided, including a more thorough review of groundwater and surface water potential.	11
	Justification for the elimination of the Lincoln well fields needs to be explained since technology exists to treat contaminated water supplies.	12
	A re-evaluation of the Scituate Reservoir system should clarify discrepancies on safe yield data, although we are glad to see this source is no longer being considered as the proposed back-up supply.	13
2-120	The combination wet/dry cooling system should not be dismissed on the basis that it is not a proven system. As noted on page 2-121, there may be significant advantages relating to reduced water quality impacts. The FEIS should explore this option in greater detail to identify other positive/negative impacts associated with its use.	14
2-120 and 2-121	Impacts to the Blackstone River and aquatic life should not be termed as insignificant.	15
2-121	A determination on the adequacy of BACT analysis is pending approval of the Department through PSD review, and may be subject to further recommendations.	16
2-122	What are the impacts that would be associated with these alternative pipeline routes? It should be noted that a new freshwater wetlands permit application would be required for an alternate route.	17

W-60

SA7-8 Noise attributable to the operation of dry cooling towers would result from the operation of the fans. A major manufacturer has indicated that since dry cooling towers require more fans than wet cooling towers there will be a substantial increase in fan noise. This will be at least partially offset by a lack of noise from falling water. Precise sound levels from dry cooling towers would depend on their configuration, size, and orientation on the site and can only be obtained with actual noise measurements. Additional buffer area would be required only if traditional noise suppression methods proved to be insufficient to reduce noise levels to an L_{dn} of 55 dBA at the nearest residence. OSP has agreed to conduct post operational noise surveys to ensure that offsite noise specifications will be met.

SA7-9 Please see the response to comment FA2-44. The statement is based on the 56-year flow record of the Blackstone River at Woonsocket, during which time the minimum flow in the river was 21 cfs, or greater than the maximum plant requirements of 4.4 mgd (6.8 cfs). RIDEM's conditions, as now stated, are not in Staff's opinion restrictive enough to require changing the text statement.

SA7-10 The 10-percent-of-7Q10-flow limitation criteria is a commonly used and widely accepted criterion for screening water sources for plant siting purposes.

SA7-11 Staff believes the level of effort expended in the siting study with regard to water supply alternatives to be appropriate for the type of project proposed.

SA7-12 The issue regarding the use of the Lincoln well field for this industrial purpose is not whether the water can or cannot be treated. The potential difficulty relates to the fact that the aquifer in that area is under litigation relating to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (PL 99-499, 100 Stat. 1613 (October 17, 1986)). Staff concludes that the aquifer in question is not available for such use unless and until the U.S. Environmental Protection Agency agrees to such use.

SA7-13 Studying the safe yield for water withdrawals from the Scituate Reservoir is outside the scope of this EIS. It is a State issue and requires State resolution.

SA7-14 The advantages and disadvantages of using a wet/dry cooling system are essentially the same as those identified in the revised Section 2.1.4.3.3 for dry cooling towers.

SA7-15 Comment noted; the sentence has been changed to state that the impacts are minor and amenable to mitigation.

SA7-16 Staff notes this comment.

SA7-17 The revised Section 2.1.4.5 details the impacts associated with the alternative pipeline routes. Wetlands are now depicted along the oil/water pipeline, as well as gas pipeline, route alternatives (Figures 2.1-9 and 2.2-21).

SA7 (cont'd)

2-162 Mitigation of construction impacts should not be considered as long-term mitigation, or in lieu of minimizing impacts which could be avoided. 18

2-175 Statements concerning wildlife that are based upon acreage losses alone are not comparable. Not only is the specific habitat unit affected important, but also its interspersion with other habitats, and the quality of the affected habitat. 19

3-10 It is stated that the hydro plant at Rolling Dam is inadvertently operated so as to cause intermittently low and high flows downstream. The FEIS should further explain how this intermittent operation and irregular flow pattern may affect the proposed OSP intake. 20

3-29 Based upon the rural nature of the area, shouldn't equipment that was capable of detecting below 43 dBA have been utilized in the studies of ambient conditions. 21

Additionally, as pointed out at the Public Hearing held on April 14, 1988, concerns for extreme wind conditions that would influence the results of the noise studies should be explained, possible necessitating a complete set of new data be obtained. 22 Also, did the traffic counts take into account the vehicle classification? 23

3-51 The National Heritage Corridor in Rhode Island (Blackstone River Park) is proposed to connect with the Massachusetts Blackstone Heritage Park and extend to Providence. It should be noted the Blackstone River Bikeway is a nineteen mile bike path proposed from Woonsocket to Providence, and is being developed in conjunction with the Blackstone Linear Park System, which is a continous corridor along the River. The cited portion of the Linear Park represents only one of may phases of development proposed along the entire length of the Blackstone River in Rhode Island. Recommendations made at the Public Hearing to investigate an alternative water pipeline route along the railroad bed adjacent to the River, should consider these park proposals. 24

SA7-18 Please see the responses to comments FA3-7 and FA4-12. Staff notes that avoidance is a primary means for minimizing impacts, but other mitigation strategies are acceptable if effective in reducing overall impact. Staff has repeatedly found that looping along existing rights-of-way, with appropriate mitigation, normally has less overall impact than construction of new rights-of-way, even in sensitive areas such as wetlands. Construction mitigation in many cases can thus be considered long-term mitigation, and may be preferable to avoidance alternatives.

SA7-19 The relationship of Nelson Swamp to surrounding habitat is explained in Section 2.2.5.1, not just the acreages. Land disturbance to construct new right-of-way was believed to affect more wildlife than use of the existing right-of-way.

SA7-20 Further investigation by the FERC Staff indicates that the hydro facility at Rolling Dam is licensed as a run-of-the-river facility. Thus, it is not permitted to alter existing stream flows. The text has been revised accordingly (Section 3.1.2.1.2).

SA7-21 The data obtained during the original noise survey (Vanasse Hangen Brustlin, Inc., 1987) would have been more useful for documenting existing noise levels in the vicinity of the proposed plant site during the quiet hours of the day if an instrument with a lower noise threshold had been used for the long-term measurements. Short-term measurements recorded with a different instrument during the survey illustrated that quiet hour noise levels would be substantially below the 43 dBA instrument threshold, as low as 25 to 36 dBA, depending on the time of measurement.

SA7-22 The engineers at Vanasse Hangen Brustlin, Inc., responsible for making the noise level measurements have indicated that all of the short-term measurements were conducted during weather conditions that would not have significantly biased the results. Onsite wind speeds were considered low enough that a wind screen was not required. Although wind speed measurements at the Worcester, Massachusetts, airport were approximately 15 mph during the measurement period, it is likely that wind speeds in the site vicinity were considerably lower, since the area is heavily wooded. This has the effect of reducing wind speeds near the ground (below 100 feet). Wind speed measurements at municipal airports are typically higher than in surrounding areas due to a lack of surface obstructions to wind flow. It should also be noted that a windscreen does not eliminate wind noise, but rather it reduces noise associated with turbulence around the microphone in very windy or gusty conditions.

SA7-23 The traffic counts did not take into account the vehicle classification.

SA7-24 Staff notes this comment.

4-4	The specific details of erosion and sediment control plans and practices to be followed should be identified, with emphasis added that OSP will implement and carry out as proposed.	25	SA7-25 Complete details ~~drawings~~ and explanatory text regarding erosion and sediment control practices ~~have~~ been included in plans submitted to RIDEM by OSP. Staff has reviewed the plans and included in the FEIS sufficient detail to evaluate their appropriateness and effectiveness.
4-9	The U.S. Fish and Wildlife Service criteria for minimum aquatic baseflow (0.5 cfs/square mile of watershed) should be considered in evaluating impacts to aquatic life.	26	SA7-26 Please see the response to comment FA3-16.
4-12	The impact to the DO level has generally been agreed upon as 0.3 mg/l, and should be cited (Carey, 1988). The specific means of mitigation will be subject to further sampling, and will require development of consent agreements where other parties may be involved, which will be subject to review and approval of the Department. If these mitigation measures prove to be ineffective, it should be noted that the requirement of plant shut down has been indicated as a condition of the mitigation based upon the current proposal.	27 28	SA7-27 Comment accepted; the text has been revised accordingly (Section 4.1.2.1.2). SA7-28 Staff notes these potential requirements; please see the revised Section 4.1.2.1.2.
4-15	Will flows from proposed detention ponds be metered into the receiving streams, and will settling of particulates be considered in the design? Identification of how no negative impacts to downstream receiving waters will be achieved needs to be explained. Also, will these downstream waters receive any of the overflow from the zero discharge system in event of failure? A contingency for a RIPDES wastewater discharge permit should be included.	29 30 31	SA7-29 Flows from proposed detention ponds will be metered. The ponds will be designed to achieve settling of particulates. SA7-30 Detention ponds will be designed so that peak discharges will not exceed pre-project conditions. SA7-31 There will not be an overflow from the zero discharge system in the event of a failure. Please see the response to comment SA7-5.
4-19	It should be noted in the EIS that the PSD application is stll under the Department's review, and that a final determination on the BACT analysis is pending approval and further recommendations that may be stipulated.	32	SA7-32 Staff notes this comment.
4-22	Although other sources of emissions have been noted, they have not been included in cumulative impacts as consideration of interacting sources.	33	SA7-33 Comment noted; only the most significant sources in the area were modeled. No significant interactions between the emissions from the proposed OSP facility and any of these sources were predicted in the modeling analysis.
4-32, 4-43 and 4-51	A final determination on the impact of dissolved salts is pending recommendations on the Air Quality permit.	34	SA7-34 Staff notes this comment.
4-32	Statements concerning VOC emissions have not been backed up with data. If no data is available, it shoud be noted as such.	35	SA7-35 Comment accepted; please see the revised Section 4.1.3.5.4.

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4-40	Noise impacts at the intake structure pump house must consider the presence of the Blackstone Linear Park and River Bikeway proposed in this area which could be negatively impacted by excessive noise levels deterring recreational uses.	36	SA7-36 Comment accepted; please see the revised Section 4.1.4.2.
4-41	An evaluation of alternative designs or measures to avoid wetland impacts including adjacent buffer areas needs to be provided. Design modifications including steep slopes or use of retaining walls should be included in the analysis.	37	SA7-37 The plant grading limits are presently anticipated to encroach approximately 10 feet on the wetland to the east of the plant due to plant grades. Staff has included a condition that OSP use design modifications to avoid this encroachment.
4-47	Specific construction measures and erosion control practices to be utilized to reduce impacts to the Blackstone River would be subject to DEM review and approval of the Freshwater Wetlands Application.	38	SA7-38 Staff notes this comment and acknowledges this requirement.
4-47 and 4-50	Statements concerning minor impacts to fish habitat are not justified based upon findings concerning DO levels presented in the E & E studies.	39	SA7-39 Staff understands that RIDEM will require aeration to increase dissolved oxygen in order to meet State water quality standards.
4-53	The Blackstone Linear Park as noted earlier is a continuous corridor along the Blackstone River, although being developed in segments. In addition to visual and recreational impacts, noise associated with the pump house must be identified. Appropriate mitigative measures should be detailed in the FEIS to address these concerns.	40	SA7-40 Please see the response to comment SA7-36.
4-54	If alternate pipeline routes are considered to minimize impacts to residences, other associated impacts to natural resources affected should be quantified as well.	41	SA7-41 Potential impacts to natural resources as well as impacts to residences are discussed for alternative water and oil pipeline routes in the revised Section 2.1.4.5.
4-100	Conclusions stating no significant effects on aquatic ecosystem will result are not justifiable unless appropriate mitigation is provided. Furthermore, mitigation measure should be identified in the FEIS concerning the handling of low quality waters that would be discharged from the zero discharge system during failure.	42	SA7-42 Mitigation for low DO levels addresses the first part of this comment on aquatic impacts. Also (as noted in the response to comment SA7-5), no overflow discharges of low quality waters are anticipated during a system failure so no mitigation is necessary.
4-105	As indicated in the PSD application, only a limited number of hours of operation are allowed using fuel oil as a back-up in the event of an interruption in the supply of gas. An extended use of oil would change	43	SA7-43 Comment noted; footnote "f" in Table 2.1.9 points out that the yearly limitation on fuel oil combustion would be approximately 1,500 hours per year in order to limit VOC emissions to 100 tons per year. All other pollutants have been addressed for both gas and oil combustion in terms of compliance with applicable PSD increments in NAAQS.

the results of the analysis in regard to meeting allowable emissions of VOC's and other pollutants. 43 cont'd

5-4 Detailed information concerning all mitigation measures to be utilized to compensate for impacts to affected resources should be provided in the FEIS document. Both short term construction measures, and long term mitigation to compensate for impacts over the duration of the plant life including ancillary features, should be thoroughly identified for the proposed action. 44

The Department thanks you for the opportunity to comment on this document. We are available to meet with your staff and consultants to help provide guidance in resolutions of major issues, or further define clarification on information requested.

Sincerely,

Victor A. Bell
Chief

VB/sw
L17VB

cc: M. Grant
E. Szymanski
D. Hartley
J. Malachowski
E. Higgins-Congram
V. Lang

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SA7-44 Mitigation discussions in Section Five have been expanded in the FEIS to include fuller descriptions of the mitigation measures to be employed and recommended to be employed, and their effectiveness. See also the response to comments FA4-32 and FA4-33.

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

SA8

HISTORICAL PRESERVATION COMMISSION
Old State House
150 Benefit Street
Providence, R.I. 02903
(401) 277-2678

1 April 1988

Mr. Kenneth F. Plumb, Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, DC 20426

Re: Ocean State Power Project DEIS

Dear Mr. Plumb:

The Rhode Island Historical Preservation Commission has received the above-referenced Draft Environmental Impact Statement, and our staff has reviewed it accordingly. Our comments are as follows.

The Rhode Island Historical Preservation Commission is concerned that the Draft Environmental Impact Statement does not contain sufficient information on cultural, specifically archaeological, resources to identify in full the potential effects of this project; and missing information may also be needed to consider what constitutes suitable mitigation if adverse effects cannot be avoided.

The first instance involves the cemetery on the Sherman Farm Road site (pp. 3-60; 4-57). This cemetery was not identified in the Phase I Archaeological Survey but was discovered afterwards when the property was being cleared. This office has not yet received any documentation on the cemetery beyond an informational telephone communication. Based on our experience with rural cemeteries, there is a reasonable possibility that the cemetery contains unmarked graves. Therefore, any decision on enfencing the cemetery should be preceded by an archaeological definition of the cemetery's boundaries.

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SA8-1 The FERC Staff understands through more recent communication with the commentor that the cemetery would not be affected. In a letter to FERC dated June 21, 1988, the Deputy Director of the Rhode Island Historical Preservation Commission stated that his office had received an archeologic delineation of the cemetery site. The letter further stated that the Commission has determined that a sufficient buffer area has been established around the cemetery to ensure its preservation as an historic site.

The second instance involves the potential impacts to cultural resources posed by the proposed water and oil pipeline from the Blackstone River to the power plant area. The Rhode Island Historical Preservation Commission recommended a Phase I survey along the proposed route or routes to gauge the potential impacts to the six National Register sites and districts on or near the route, as well as to any as yet unidentified resources. (See attached letter 9-17-88.) It is our understanding that this Phase I work should be done prior to the issuance of the EIS for all alternatives; yet we received no report for such a survey. The reconnaissance work of a Phase I survey should not be considered as mitigation; rather it is the basis for determining whether the project will have an effect on cultural resources that needs to be mitigated.

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A third issue of great concern is the alternatives study, where cultural resources were not included among the environmental factors. On what basis did the analysis of the sites' suitability exclude consideration of cultural resources? Such a procedure is in direct conflict with the requirements of the National Historic Preservation Act and the Procedures of the Advisory Council on Historic Preservation (36 CFR 800).

3

Thank you for the opportunity to comment. We look forward to resolution of the outstanding matters.

Very truly yours,

Edward F. Sanderson
Executive Director
Deputy State Historic
Preservation Officer

EFS:cc
Enclosures

cc: Brona Simon
Deborah M. Vrabel

M-66

SA8-2 Please see the response to comment GIC8-51.

SA8-3 A cultural resources study was not included in the initial site screening because cultural resources are not considered a major siting impediment. In general, the sites studied are all large enough so that cultural resource areas could be avoided. Cultural resources were considered for the final detailed evaluation of alternative sites. Staff has examined RIHPC files to collect information on cultural resources in the vicinities of the proposed alternative sites; this information is included in the revised Section 2.1.6.4.

WRITTEN COMMENTS AND STAFF RESPONSES

GROUPS, INDIVIDUALS, AND COMPANIES

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April 22, 1988

GIC1

Lois D. Cashell, Acting Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, N.E.
Washington, DC 20426

RE: Draft Environmental Impact Statement for Ocean State Power's Proposed Combined Cycle Power Facility and Tennessee Gas Company's Natural Gas Pipeline Facilities
Docket No. CP87-132-001

Dear Secretary Cashell:

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On behalf of our clients, the Concerned Citizens of Burrillville/Uxbridge, we submit the following comments on the above referenced Draft Environmental Impact Statement ("DEIS") prepared by the Federal Energy Regulatory Commission ("FERC"). Clearly, much effort went into the preparation of the DEIS. However, we identified deficiencies in the document, the magnitude of which dictate the preparation of a supplemental DEIS. The DEIS, as it is, does not satisfy the purposes of NEPA, nor does it comply with the CEQ regulations for EIS preparation.

I. THE DEIS DOES NOT INCLUDE A RIGOROUS EXPLORATION OF ALL REASONABLE SITE ALTERNATIVES

FERC began its siting analysis with an extensive search involving approximately eighty sites. However, even these sites do not represent all reasonable alternatives for the purposes of NEPA, since one of the siting criteria was the proximity of the site to a cooling water source. This unnecessarily limits the siting options since dry cooling technology exists - a technology which also eliminates all impacts related to water withdrawal from the Blackstone River and the cooling tower plumes. From an environmental perspective, then, the dry cooling technology has clear advantages over the proposed wet cooling system. Thus, reasonable alternative sites farther away from the proposed cooling water supply require examination in the DEIS pursuant to NEPA. 1

GIC1-1 Proximity to cooling water was not a factor in the initial identification of 82 sites. Indeed, excluding consideration of cooling water supply from the Possible Site evaluation has essentially no effect on the list of Potential Sites. Section 2.1.6.1.3 of the DEIS (FEIS Section 2.1.4.3.3) provides a detailed discussion of the advantages and disadvantages of dry cooling systems. See also the response to comment FA4-26. Dry cooling is generally not preferable to wet cooling unless there are significant technical or environmental impediments to wet cooling. A siting analysis should include a reasonable suite of sites that could utilize the preferred cooling system, as was done for the DEIS. Thus, there is no need (or requirement) to evaluate less preferable cooling technologies.

The DEIS does identify a promising site alternative; that is, the Ironstone site alternative in Uxbridge, Massachusetts. It is among the three sites considered to be most suitable following FERC's site alternatives analysis. The site analysis starts out strong, identifies some reasonable alternatives, notably the Ironstone site, and then the analysis stops. A few suggestions are proposed as to why the Ironstone site does not deserve further study. These reasons are the following:

1) an aquifer underlays the site that is a potential water supply;

2) a zoning change would be needed;

3) the potential uncertainty of transporting the cooling water source across the state border; and

4) the delay in changing sites.

We submit that none of these reasons precludes the use of the Ironstone site.

First, on behalf of the Uxbridge Planning Board, IEP, Inc., an environmental planning and engineering firm, evaluated the proposed zoning change. Specifically, IEP investigated the aquifer potential at the site. This investigation and its results were included in a report to the Planning Board entitled "Site Suitability Assessment of Ironstone Industrial Park," December, 1987.

The report concludes that, "...the aquifer is not capable of supporting a large commercial or municipal water supply..." Also, "changing the zoning uses from agricultural to industrial does not directly impair or degrade any natural resources considered necessary to the public health, safety, and welfare of the citizens of the Town of Uxbridge and a zoning change should not be ruled out. An industrial park on this site is reasonably compatible with adjacent uses and does not represent greater risk than the adjacent land uses."

Second, there has been no indication that a zoning change would not be granted. The major impediment was removed with IEP's report. Furthermore, one Selectperson from Uxbridge spoke at FERC's April 14, 1989 Public Hearing in favor of the OSP facility being constructed at the Ironstone site.

Transporting cooling water across the Massachusetts border was described as the primary barrier to use of the Ironstone site, yet the likelihood of approval for such transport was not investigated at all. This is where the siting alternatives analysis fails substantially. The DEIS concedes that the

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GIC1-2 Comment noted; Staff concurs that none of the reasons stated would preclude the use of the Ironstone site.

GIC1-3 Comment noted; the referenced report has been reviewed by Staff and appropriate revisions have been made in the revised Sections 2.1.6.3.1 and 5.1.2. Acceptance of the conclusions of the report by the Town should remove a major impediment to a zoning change for the property. Staff notes that the Town's consultant recommended that if a change from agricultural to industrial zoning is enacted by the Town, relatively strict controls should be imposed to protect the groundwater resource at the Ironstone site. The recommended uses allowed by right, uses allowed by special permit, and prohibited uses are oriented toward light industry, manufacturing, and research and development facilities. The allowed uses, either by right or special exception, at present do not appear to include an electric generating facility. This contrasts with the F-5 (Farming) zoning at the Sherman Farm Road site which the Burrillville Zoning Board has determined allows by special exception the proposed power plant.

GIC1-4 Comment noted; please see the responses to comments FA4-26 and FA4-27.

Ironstone site is environmentally superior to the preferred Sherman Farm Road site in many respects, including land use compatibility, wetland impacts, upland clearing and buffer area. Therefore, a more rigorous analysis of the Ironstone site, with or without a wet cooling system, is required in the DEIS. 4 cont'd

The final suggested problem with changing the OSP facility was a predicted two-year delay in gaining the necessary approvals for the facility. However, given the DEIS analysis pertaining to when additional electricity will be needed, i.e. the mid to late 1990's, such a delay seems inconsequential. This delay would be even less significant with the implementation of energy conservation measures which were completely dismissed from consideration in the DEIS. 5

In any event, such a delay would be the result of poor planning on the part of OSP. The seemingly most convenient and least expensive site was chosen, irrespective of the environmental consequences. In fact, the Sherman Farm Road site rated nowhere near the top under the DEIS criteria used to narrow the list of alternative sites. Many very promising sites rated high above the Sherman Farm Road site, including the Stoney Brook site, but were dropped without explanation. The public should not pay for such poor planning in the form of unnecessary environmental and health impacts. Therefore, completion of an adequate siting analysis is imperative, with a rigorous exploration and objective evaluation of all reasonable alternatives as mandated by CEQ regulations. 40 CFR 1502.14(a). Without such an analysis, the DEIS will be nothing more than a justification for OSP's previously chosen site. 6

II. THE DEIS ANALYSIS OF ENVIRONMENTAL CONSEQUENCES IS INCOMPLETE AND, IN PART, INACCURATE

With a complete siting alternatives analysis, many impacts predicted to occur at the Sherman Farm Road site would be shown to be minimized or even avoided at other sites. For instance, noise, fogging, lighting and land use incompatibility impacts could easily be avoided at a site such as Ironstone.

The DEIS does attempt to analyze and describe the environmental consequences of siting the proposed facility at the Sherman Farm Road site and of constructing the proposed natural gas pipeline. However, the DEIS falls short of this goal in several instances.

A. Land Use Compatibility

The DEIS fails to discuss the inconsistency of the proposed project with Burrillville's Comprehensive Community Plan pursuant to 40 CFR 1502.16(c). This Plan "reflects a carefully studied 7

GIC1-5 Comment noted; please see the response to comment FA4-28 regarding approval delays, and to comment FA3-3 regarding energy conservation.

GIC1-6 Comment noted; commentor appears to confuse OSP's siting decisions with the independent analysis performed by FERC Staff. As described in the response to comment FA4-28, Staff's analysis was conducted without considering present property ownership or the present status of design and permit approval on a particular site. When evaluated on its merits, the Sherman Farm Road site proposed by OSP ranks near the top under the DEIS criteria (tied for third out of eleven sites), and the overall differences between the top sites are not substantial.

The selection rationale for the alternative sites that were compared to OSP's proposed Sherman Farm Road site is described in Section 2.1.5.9 of the DEIS and in response to comment FA4-30. Only one site that ranked higher than Sherman Farm Road was excluded from the final comparison. It was not included because it is near, and ranked lower than, the Ironstone site in Massachusetts, and its inclusion in the final comparison would not further the analysis. Stony Brook is discussed on page 2-104 of the DEIS.

Staff believes that the alternatives analysis meets the intent of 40 CFR 1502.14(a).

GIC1-7 The Burrillville Comprehensive Community Plan (1966) is a relevant planning document, but it is more than 20 years old. The Burrillville Zoning Board has already granted a special exception to the F-5 designation. This action displays a sense that controlled economic growth is now acceptable to the community.

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estimate of future requirements showing how development in the community should proceed in the next twenty years... The site for the proposed facility is in a rural residential area, described by the Plan as a valuable public asset affording a sense of open space. The Plan calls for the area to maintain its rural density with "not more than one family per five acres of land."

Failure to discuss this plan in the DEIS violates the CEQ regulations and artificially minimizes land use compatability impacts at the Sherman Farm Road site.

7 cont.

B. Noise Impacts

Attached is an evaluation of the Venasse, Hangen, Brustlin, Inc. report entitled "Evaluation of Baseline Noise Conditions," prepared by Mr. John Muratorae, an engineer with GTE. Mr. Muratorae describes several flaws in Vanasse-Hangen's study. Specifically, the instrumentation used for long term measurement was not capable of reading noise levels below 43dB. Any reading which would have been below 43dB was simply counted as if it were 43dB in calculating background noise levels. This leads to an artificially elevated estimate of background noise levels.

To compensate for this flaw, short term measurements were made with a more sensitive instrument. Unfortunately, these short term measurements were made for only 10 minutes at each location and none of the measurements were made at night. See "Evaluation of Baseline Noise Conditions," Figure 5. Even so, background ambient readings as low as 25dB were recorded on several occassions. Had nightime readings been taken, even lower ambient sound levels would probably have been recorded.

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Moreover, FERC's DEIS Scope requires that the EIS "ignore the fact of the state boundary and address environmental impacts independently of the Rhode Island/Massachusetts line." Yet Massachusetts' noise standard is only mentioned briefly. No effort is made to achieve this standard under any project alternative. In other words, not only is the noise assessment faulty, but no steps were taken to minimize noise impacts in compliance with NEPA and so as to achieve the Massachusetts noise standard.

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A supplemental DEIS must repeat the baseline noise assessment with appropriate instrumentation and prior to re-vegetation of the area. Also, construction of the OSP facility at the Sherman Farm Road site calls for the clearing of 16 acres. Whether the baseline noise analysis will still be accurate following this clearing activity must be assessed. Very likely, it will not be accurate. Means to minimize projected noise impacts and to satisfy the Massachusetts noise standard must be evaluated. This is not an impossible goal given that other facilities have committed to achieving noise levels much lower

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GIC1-8 Please refer to the response to comment FA4-19. With regard to the possibility of ambient nighttime noise levels being lower than 25 dBA, previous experience in rural quiet areas indicates that this is not likely to be the case. Typical quiet hour noise levels in remote wilderness areas are on the order of 25 to 30 dBA, not including such normal noise producing sources as insects and the rustling of leaves. See also Appendix E of the FEIS.

GIC1-9 Comment noted; please see the revised Section 4.1.4.2 for additional discussion.

GIC1-10 Please see the response to comment FA4-19. With regard to noise levels after site clearing, OSP has agreed to FERC's mitigation measure (Section 5.1.3.2) to conduct a post-construction noise monitoring survey to ensure that offsite noise levels attributable to the operation of the facility do not exceed an L_{dn} of 55 dBA at the nearest residence. The Staff further recommends that corrective action be taken if this level is exceeded.

than OSP's proposed levels, including NEA's combined cycle co-generation plant in Bellingham, Massachusetts. 10 cont'd

C. Wetland Impacts

In requests for preparation of the DEIS currently under review, both EPA Region 1 and this office requested detailed wetland delineations for areas potentially impacted by this proposal and an assessment of each alternative pursuant to the 404(b)(1) Guidelines. In response, the DEIS includes a sketchy delineation of the subject wetland areas. None of these wetlands are formally assessed as to their value in terms of flood control, protection of groundwater and surfacewater supplies, wildlife habitat and several other interests. The minimal information provided is insufficient to assess the project under the 404(b)(1) Guidelines. 11

Furthermore, the 404(b)(1) Guidelines are not even mentioned in the DEIS let alone the analysis previously requested of project alternatives. If such an analysis did occur, the Sherman Farm Road site would emerge as the least appropriate site since "no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences." 40 CFR 230.10(a) As discussed in the DEIS, the Sherman Farm Road site is the only site where wetlands will be impacted. "Practicable alternatives" to the Sherman Farm Road site described in the 404(b)(1) Guidelines do exist and are indentified in the DEIS. Therefore, under the 404(b)(1) Guidelines, the project as proposed would not be allowable at OSP's preferred site. 12

At the Ironstone site, no wetlands would be affected. Furthermore, by withdrawing water from the Blackstone River near the Ironstone site and by tapping the Mobil pipeline .6 miles away from the site, minimal, if any, wetland impact would result. See DEIS, pg. 2-122. Finally, an alternative gas supply route has been proposed by the Algonquin Gas Transmission Company which would eliminate the need for the entire 11 mile pipeline to the OSP site at Sherman Farm Road. Instead, 3.4 miles of looping would be required for this alternative. Since the Algonquin pipeline also passes adjacent to the Ironstone site, this alternative would also be applicable to that location. 13

The cumulative impact to wetlands resulting from power plant and pipeline construction is substantial, requiring evaluation under the 404(b)(1) Guidelines. We do not believe that the abbreviated Nationwide Permit program is intended for major projects such as that proposed. A full 404 analysis of project alternatives must be part of a supplemental DEIS. 14

GIC1-11 Please see the revised Sections 2.1 and 2.2 and the responses to comments FA3-7 and FA3-8. The U.S. Army Corps of Engineers will determine compatibility of the project with Nationwide Permit requirements.

GIC1-12 Please see the response to comment GIC1-11. The area of wetlands to be filled at the Sherman Farm Road site is less than 1 acre and is therefore less than the minimum size covered under Army Corps permit requirements. Also, all other sites considered would require transmission line upgrades, which could affect wetlands.

GIC1-13 Please see the responses to comments GIC12-1 and FA4-14.

GIC1-14 Please see the response to comment GIC1-11.

D. Secondary Impacts Of The Proposed Project

If the OSP facility is constructed at the Sherman Farm Road site, FERC must examine the possibility of any further plans for expansion of the facility in the future. Otherwise, all of the environmental analyses conducted thus far will underestimate the effects of the total project. 15

Also, on page 2-78 of the DEIS, FERC mentions the need for a switching station which will require ten acres of land area. However, no discussion of this portion of the proposed project is provided in the DEIS. The DEIS is clearly inadequate without discussion of this substantial component of the proposed project. 16

III. THE DEIS DOES NOT EXPLORE THE USE OF ALL PRACTICABLE MEANS TO RESTORE AND ENHANCE THE ENVIRONMENT AND TO AVOID OR MINIMIZE ADVERSE EFFECTS

CEQ regulations require that federal agencies "shall to the fullest extent possible ... use all practicable means ... to restore and enhance the quality of the human environment and avoid or minimize any possible adverse effects of their action upon the quality of the human environment." 40 CFR 1500.2(f). The DEIS, however, does not examine all such practicable means and, therefore, is inadequate in terms of enabling federal agencies to evaluate accurately the proposed project and to act accordingly. 17

Some of the gaps in the DEIS's analysis of impacts and their mitigation involve the proposed cooling water system and the siting of the power facility. These gaps have been discussed above. Generally, though, the DEIS does not fully analyze the reasonable alternatives set forth since it incorrectly presumes that the use of a dry cooling system is infeasible. 18

This presumption not only precludes a complete site alternatives analysis, but it eliminates a significant opportunity to avoid completely the large number of impacts associated with the use of cooling water.

The DEIS not only fails to minimize environmental impacts through an appropriate siting analysis, but it proposes vague mitigation measures without exploring alternative means for enforcing them. OSP and Tennessee Gas could possibly incorporate the proposed mitigation into their respective proposed projects, and the revised projects could be described in the Supplemental DEIS. 19

It is important to consider that the DEIS concludes that the Sherman Farm Road site will not involve significant adverse impacts with the proposed mitigation. This is highly inappropri-

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GIC1-15 OSP has not, to Staff's knowledge, proposed the possibility of future expansion of the Sherman Farm Road site beyond the presently-planned two units. With specific respect to Staff's environmental analysis, no documents have been filed by OSP that indicate more than two units are envisioned. There is ample precedent for limiting the environmental analysis of the project to the two units proposed.

GIC1-16 The discussion of switching stations on page 2-78 of the DEIS is in reference to the screening of possible sites. Evaluation of potential switching station locations and their construction and operational effects was not a determinant at the possible and potential site evaluation levels. Switching stations were introduced to the analysis for the final, three-site comparison in Section 2.1.5.10 of the DEIS.

GIC1-17 Comment noted; several commentors noted deficiencies in the DEIS or areas in which it could be improved. Staff has considered all verbal and written comments in preparation of the FEIS, and taken specific action on all relevant and substantial issues raised.

GIC1-18 The FEIS does not presume that the use of dry cooling is infeasible. Although a dry cooling system would eliminate many of the environmental impacts associated with a wet cooling system, it also has several disadvantages. The advantages and drawbacks of dry cooling are discussed in Section 2.1.4.3.3.

GIC1-19 Comment noted; please see the responses to comments FA4-32 and FA4-33. Staff first notes that an important factor in considering the relative merits of the Sherman Farm Road, Ironstone, and Bryant College sites is that only the Sherman Farm Road has a specific development proposal by an applicant, including the applicant's proposed mitigation. Thus, in order to make a site comparison, the Staff developed concepts for the alternative sites, including Staff's preferred mitigation. In fairness to Sherman Farm Road, it should be compared to Ironstone and Bryant College as if Staff's preferred mitigation were to be imposed there also. Second, Staff agrees with the commentor's statement that, because Staff's recommended mitigation is not part of the proposed project, it should not be considered in evaluating the overall acceptability of the project until the FERC or the EFSB impose them as conditions to their respective authorizations. The Staff's recommended additional mitigation measures are intended to further reduce the environmental impacts. The authorizing agencies may, or may not, impose any or all of the recommended measures. OSP's and Tennessee's views of Staff's recommendations are clearly presented in their comments on the DEIS (GIC8 and GIC10).

ate and results in a flawed comparison of the relative merits of each alternative. Simply put, the proposed mitigation is not a part of the proposed project and should not be considered in assessing the proposed project, especially since it may or may not be implemented. 19 cont'd

IV. THE DEIS DOES NOT INCLUDE INFORMATION AND ANALYSES REQUIRED BY FERC'S SCOPE

The DEIS is missing an accurate wetland delineation and valuation, plant lighting impacts have not even been discussed, let alone mitigated, and no full description of the Blackstone Wildlife Management Area has been provided. Such a description should have included the flora and fauna in the management area as well as detailed long-term, cumulative impacts. In addition, only a very sketchy health impacts assessment regarding cooling tower plume effects has been provided in a report referenced by the DEIS. All of this information was required by FERC's own scope. 20

FERC's scope also called for a complete environmental assessment of impacts to the Blackstone River resulting from cooling water withdrawal. While water quality parameters were analyzed to some extent, only a brief discussion of habitat impacts during low flow conditions is provided. Further, aeration of the River is proposed to mitigate for water quality impacts resulting from the cooling water withdrawal. While this may elevate DO levels, it does nothing else to improve water quality. In addition, it represents an additional, unjustifiable alteration to the Blackstone River environment. 21

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At one point in the DIES, FERC claims that approval of a site will be based on resolution of the water supply issue - but that this water issue is beyond the scope of the DEIS. We could not disagree more strongly. The DEIS examines numerous impacts to the Blackstone River and at the project site - all related to the the use of cooling water. It is certainly within FERC's DEIS scope to explore how such impacts could be minimized or avoided. In fact, NEPA requires the use of all practicable means to avoid or minimize impacts. 22

V. NEED FOR SUPPLEMENTAL DEIS

The NEPA process is intended to help public officials make decisions that are based on a complete understanding of the environmental consequences involved with a given project. Only with this understanding can public officials take actions that protect the environment. Unfortunately, the DEIS before us does not provide the necessary understanding of environmental consequences for public officials to take action, especially due to its inadequate alternatives analysis, impact assessment and mitigation proposal. 23

GIC1-20 A scoping study was conducted by Staff to identify potentially significant environmental issues related to the proposed project. The items referred to in the comment—wetlands, plant lighting, effects on the Black Hut Wildlife Management Area, and health effects from the cooling tower plume—were some of the potentially significant impacts identified. Each received a subsequent evaluation by Staff and coverage in the DEIS at a level of detail commensurate with the significance of the potential adverse effects. Comments received from several parties regarding the DEIS coverage of certain issues resulted in expanded analysis and coverage for the FEIS.

GIC1-21 Section 4.1.2.1.2 has been revised to indicate several possible DO mitigation measures that could be employed. Staff disagrees with the comments that mitigation is "unjustifiable."

GIC1-22 Water supply issues were the subject of several comments. Regarding conditions that may be placed on withdrawal of Blackstone River water, please see the response to comment FA4-1. Regarding impediments to zoning changes at Ironstone due to concerns for potential groundwater contamination, please see the response to comment FA4-24. Regarding concerns about interstate transfer of water, see the response to comment FA4-27. Staff has explored each of these issues to the extent practicable.

GIC1-23 The progress of an EIS from the draft stage, through the comment process, to the preparation of the Final EIS typically involves substantial agency and public comment, incorporation of new data, and revisions to analyses. This has been the case for the OSP EIS. Most if not all DEIS's have inadequacies and deficiencies that are corrected in the FEIS; the OSP DEIS is not an exception. FERC Staff has reviewed this comment and others requesting that a supplemental EIS be prepared. Staff has concluded that the DEIS was adequate to provide meaningful analysis, that substantial changes to the proposed action that are relevant to environmental concerns have not occurred, and that new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts have not been significant. Staff concludes that a supplemental DEIS would not materially add to an understanding of the environmental consequences of the OSP project.

Therefore, preparation of a Supplemental DEIS must occur pursuant to 40 CFR 1502.9(c)(1)(ii) and 1502.9(c)(2). With the correction of deficiencies in the DEIS, not only would this result in a meaningful analysis of the project, but new site and technology alternatives would likely arise. A Supplemental DEIS would allow full opportunity for public and agency evaluation of a complete impact analysis with potentially new alternatives that should have been considered originally. 23 cont'd

VI. CONCLUSION

FERC concludes that both construction of the OSP plant and the Tennessee gas pipeline facilities, with the mitigation measures recommended by FERC, "would have a limited adverse environmental impact and would be an environmentally acceptable action." DEIS, pg. ES-1. This conclusion is premature at best, given the outstanding information and analyses needed for an adequate EIS.

Moreover, this conclusion is erroneous in that it is conditional upon implementation of FERC's recommended mitigation measures. In addition, the mitigation measures are not part of the proposed projects and should not be factored into any assessment of whether significant adverse environmental effects will occur. OSP has already stated publicly that at least two of the measures are unacceptable to them. Also, no mechanism for enforcement of these measures has been proposed as part of the OSP and Tennessee Gas projects. 24

All of the above-stated reasons compel FERC to prepare a Suppelemental DEIS. We maintain that without the preparation of a Supplemental DEIS, the very purpose and intent of NEPA will be contravened.

Sincerely,

Gregor I. McGregor

Donna J. Vorhees

Enclosure
cc: Lonnie Lister, FERC Project Manager
Mr. Carlos Riva, Ocean State Power
Mr. Robert Bendick, MEPA Unit
Ms. Elizabeth Higgins-Congram, EPA/Region 1
Mr. William Lawless, ACOE
Mr. Gordon Beckett, USFWS
Mr. Edward Burke, RI/EFSB
Senators Kerry and Kennedy
Charles O'Connell,
Concerned Citizens of Burrillville/Uxbridge
David LaFerriere,
Concerned Citizens of Burrillville/Uxbridge

N19/19

W-75

GIC1-24 Comment noted; FERC Staff is obliged to present its conclusions in the DEIS so that its position is clearly stated. It is implicit, given that the DEIS is a draft document, that Staff's conclusions are tentative pending the completion of analyses for the FEIS.

As also discussed in response to comment GIC1-19, the Staff's recommended mitigation measures in addition to those proposed by or acceptable to an applicant are intended to further reduce environmental impacts and are not an integral part of an assessment of whether significant adverse environmental effects would occur.

COMMENTS TO
EVALUATION OF BASELINE NOISE CONDITIONS
PROPOSED POWER PLANT
BURRILLVILLE, RI for OSP
by VANASSE, HANGEN, BRUSTLIN, INC.

GIC1 (cont'd)

1. Long-Term Noise Monitoring Program - Page 6 of the above report.
"It should be noted that the instruments utilized are not capable of detecting noise levels below 43 or 44 dB. Noise levels below these are referenced to the instruments threshold value (43 or 44dB)".

Study conducted on Sunday 11/23/86
Midnight to 11:00AM - 54% of the readings were at or below
Noon to 11:00PM - 42% of the readings were at or below thres.

25

CONCLUSION: Survey only proves that noise levels are higher in the daytime than at night, which is intuitively obvious. Other uses of the study data are invalid due to the high percentage of minimum values.

GIC1-25 Please refer to the response to comment FA4-19.

2.a Short-Term Noise Monitoring Program-Page 8 of the above report
Extract from Bruel&Kjaer's Measuring Sound Guidelines
"When measuring noise outdoors, precautions should be taken against wind which can cause extraneous interfering noise as it passes the microphone. Wind screens should be used whenever there is a noticeable breeze." Since the report did not reference wind conditions or the use of any wind screens, I contacted the National Oceanographic and Atmospheric Administration office in Worcester, Ma to obtain wind conditions for the reading dates.

26

12/4/86-TH - 15.0 MPH avg -- 53.2 avg Leq
12/6/86-SA - 11.5 MPH avg -- 50.5 avg Leq
2/6/87- FR - 7.7 MPH avg -- 44.4 avg Leq
2/7/87- SA - 8.9 MPH avg -- 43.2 avg Leq
2/10/87-TU - 20.5 MPH avg -- 51.6 avg Leq

Note: ground was snow-covered on 2/6,7,10/87
Station 9 was tested twice to determine effect of snow cover

12/4/86 - 15.0 MPH avg -- 53 Leq
2/6/87 - 7.7 MPH avg -- 45 Leq

GIC1-26 Please refer to the response to comment SA7-22.

2.b Correlation of data contained in Table 3 (page 9) "Summary of Short-Term Noise Readings, Weekday" and Data Sheets included as Appendix B - "Short-Term Noise Readings" revealed inconsistencies:

	Table 3		Data Sheets	
Station 1	period	9:42-9:52AM		3:44-3:54PM
12/4/86	min dB(A)	- 38 (+8)	12/4/86	30
	L50	- 45 (+7)		39
	L10	- 53 (+8)		45
	Leq	- 55 (+13)		42
	max dB(A)	- 75 (+11)		64
	note: increase of 3 dB doubles noise			
Station 2	period	10:03-10:13AM		4:23-4:33PM
12/4/86	min dB(A)	- 45 (+1)	12/4/86	44
	L50	- 51 (+4)		47
	L10	- 57 (+6)		51
	Leq	- 52 (+5)		47
	max dB(A)	- 66(+6)		60
Station 3	period	10:24-10:34AM		4:08-4:18PM
12/4/86	min dB(A)	- 37 (+8)	12/4/86	29
	L50	- 45 (+7)		35
	L10	- 57 (+18)		39
	Leq	- 49 (+14)		35
	max dB(A)	- 64 (+3)		61

Discrepancies evident in data recording and/or transcription, including indications of interference in the noise readings due to wind effect, indicate that a new study to baseline ambient noise, which is crucial in determining the environmental effect of a new noise source must be performed.

GIC1-27 The data presented in Table 3 of the Vanasse Hangen Brustlin, Inc., report are not inconsistent with the data sheets. Two sets of measurements were made on 12/4/86 at stations 1, 2, and 3. The earlier measurements (i.e., at 9:42 am, 10:03 am, and 10:24 am) are listed in Table 3 and the data sheets are included in the report. The later measurements (i.e., at 3:44 pm, 4:08 pm, and 4:23 pm) are not listed in Table 3, but the data sheets are included in the report.

3. Per Bruel & Kjaer's Measuring Sound Guidelines: "Leq, the equivalent continuous dB(A) level is an excellent criterion for studying long-term trends in ambient noise. However it does not reveal complete information about the quality of an environment because human response is partly dependent upon the range of noise level variation. This is best described by Ln values, which is the dB(A) level exceeded N% of the time."
Page 12 of the VHB study and page 5 of the BBN Labs Report #6592 references an "average" (quotes are from report) of 44 dB(A) Leq. However, L90 (the dB(A) level exceeded 90% of the time) would be much more representative of the actual environment and in fact, is the criterion used by the Mass Department of Environmental Quality Engineering. L90 values are not included anywhere in the report. For reference, the L90 would be a lower dB(A) or noise level than the L10.

28

GIC1-28 By definition, an L_{eq} sound level is an average of the total sound energy recorded by an instrument over the time period of interest. For an instantaneous sound level reading, the L_{eq} sound level would be equivalent to the L_h sound level. For typical noise levels as would be experienced over a 15 to 30 minute period, an L_{90} sound level would be approximately 5 to 10 dBA less than the L_{eq} sound level. Hence, for a typical or average L_{eq} of 44 dBA, the L_{90} could be expected to range from 34 to 39 dBA.

4. While reading the VHB study, I noted that 11 of the total 21 noise monitoring stations were located at the edge of the pavement or on roadside. Since none of the affected residences are located on the roadside, and most average about 100 feet from the road, I conducted an informal noise survey in our front yard on Aldrich St. (Rt. 98). Using a GenRad model GR1988 Precision Integrating Sound-Level Meter and Analyzer borrowed from GTE, my employer, the following readings were taken on Sunday 4/7/88:

Wind conditions - 14.0 avg MPH - no wind screen used

TIME	LOCATION	Leq	max dB(A)	Traffic count
4:35-4:45PM	roadside	53	88	12
4:46-4:56PM	50' back	43	70	14
4:59-5:09PM	100' back	43	73	17

The meter was set to automatically time a 10 minute test, and calculate the A-weighted Leq and max dB. The point here is that transient sound (traffic) is attenuated quite rapidly by the distance from the source and noise measurements would be more meaningful if taken at the point where they will be/are actually experienced.

29

GIC1-29 The purpose of the short-term monitoring program was to provide additional documentation on noise levels at a variety of locations in the general vicinity of the plant site. The locations of interest included accessible areas adjacent to and removed from roadways, as well as some onsite areas. For the monitoring results presented in Tables 3 and 4 of the Vanasse Hangen Brustlin, Inc., study, monitoring stations 1 through 8, 4A, and 16 (10 sites) were located at the right-of-way line adjacent to the roadways. The other 12 monitoring sites were located a minimum of 50 feet from any roadway. Stations 8A through 8D were located 50 to 200 feet from the roadway (Route 98) and noise levels at those stations were observed to attenuate quickly to a level 5 to 8 dBA less than observed at roadside station 8. Station 9 was located within the site area and was well removed from any roadway. Stations 9* through 15*, also located away from roadways, were monitored in the presence of snow cover. The results of those measurements indicated the expected result of reduced noise levels when snow cover is present.

RECEIVED BY

APR 25 1988

Environmental Evaluation Branch

P.O. BOX 314
SLATEN'S-VILLE, N.C. 28776

GIC2

Secretary F.E.R.C.
825 North Capital St, N.E.
Washington, DC 20426

Re Doc. No. CP87-132-000

Dear Secretary;

I am submitting my comments on the above referenced project as I was not able to speak at the hearing held in Monroe, N.C. on April 14th. There were so many speakers that I was unable to stay until my name could be reached on the list.

I don't disagree that there is a need for additional power generation and obviously the local officials are all in favor of the project because of the tax benefits as well as other monies that CSP has already paid or promised the local towns.

My concern is that it certainly appears that the property owners in the area of the proposed plant are not receiving a fair deal as the FERC states

W-79

1

JAMES R. KING (A typed version of Mr. King's letter is presented after the original longhand.)

GIC2-1 Staff notes these concerns and comments; please see the response to comment GIC3-2.

the area where the plant is proposed is a rural area where homes are located on fairly large wooded lots for a quiet area. My brother and I own approximately 100 acres adjacent to the proposed plant. We have been working with the town of Westhedge for several years to gain approval to sell building lots on a portion of the property. Even though the OSP people keep saying that property values will not be affected I question their wisdom. I have done appraisals for over 20 years in my job with U.S.D.A. And I have not found property adjacent to any such facility as the one being proposed to not be affected. Not only will the noise and visual effects

1 cont'd

2

3.

W-80

GIC2-2 Please see the response to comment GIC4-2.

be a problem for us but our property will feel the majority of the effects of the plume from the plant. Much of the year the prevailing winds are southwest which will direct the plume directly towards our property which is also at a higher elevation.

2 cont'd

OSP has made a token offer to the Burrillville residents to offset any loss in property value but nothing has been even proposed in either Burrillville or Uxbridge to compensate property owners other than homeowners. Mitigation measure #15 should be revised to include all property owners not just residents.

3

We have already been severely impacted by the Algonquin Gas Co, N.E.T.T, Texas Gas Co easements as well as the Boston Edison Co pumping station out

4

?

W-81

GIC2-3 Please see the response to comment GIC3-2.

GIC2-4 Staff believes that it is generally environmentally preferable to install new pipelines parallel and adjacent to existing rights-of-way. This is because paralleling existing rights-of-way involves permanent commitment of less land, and environmental impacts are proportionally less. However, such routing is preferable only if no significant adverse impacts would occur that could be avoided by following an alternative route. Additional information can be found in the revised Section 2.2.4. The compensation program is discussed in the response to comment GIC3-2.

our property in to and don't need another utility reducing the value of our property. They should either stay out of the area or compensate the abutters either by an outright purchase of any effected property or at a minimum compensate all effected property owners for any loss of value.

4 cont'd

There are two other areas of the DEIS that should also be looked at more closely. The DEIS states that the Ironstone site would not effect property owners as to visual & noise pollution. Our home farm is located directly across the reservoir from the alternative site and most definitely would be effected.

5

The other area of concern is the oil pipeline. The proposed line will run through E. Smithfield in areas that are entirely residential and rely on

6

GIC2-5 Staff notes that at least one homeowner believes that he would be affected by development of the Ironstone site.

GIC2-6 Contamination caused by oil leaking or spilling from an underground oil pipeline is addressed by Rhode Island General Laws Title 46, Chapter 12, which requires remediation for contamination of ground waters of the State. Rhode Island Oil Pollution Control Regulations (promulgated under the authorization of Rhode Island General Laws 46-12, 42-17.1, and 42-35) also regulate releases of oil with the potential to contaminate ground-water wells.

well water. A high pressure oil pipeline through such a thickly settled residential area would become a major problem if there was a leak. I attended the Burrillville zoning meeting last night and they have put a condition on their zoning exception that the pipe be a double wall pipe in Burrillville. The pipeline should either be routed away from the residential areas in S. Smithfield or at a minimum be of double wall construction. We have a landfill that is on the EPA superfund list because of the groundwater contamination problem on one side of us and do not need a oil pipeline on the other side.

6 cont'd

Sincerely,
James R. King

C.C. Congr. Lister Proj. Mgr.

W-83

Stamped: Received By
Apr 25 1988
Environmental Evaluation
Branch

GIC2
(typed version)

P.O. Box 214
Slatersville, RI 02876

Secretary F.E.R.C.
825 North Capital St., N.E.
Washington, D.C. 20426

Re: Doc. No. CP87-132-001

Dear Secretary:

I am submitting my comments on the above referenced project as I was not able to speak at the hearing held in Woonsocket, R.I. on April 14th. There were so many speakers that I was unable to stay until my name could be reached on the list.

I don't disagree that there is a need for additional power generation and obviously the local officials are all in favor of the project because of the tax benefits as well as other monies that OSP has already paid or promised the local towns.

My concern is that it certainly appears that the property owners in the area of the proposed plant are not receiving a fair deal. As the DEIS states the area where the plant is proposed is a rural areas where homes are located on fairly large wooded lots in a quiet area. My brother and I own approximately 100 acres adjacent to the proposed plant. We have been working with the town of Uxbridge for several years to gain approval to sell building lots on a portion of the property. Even though the OSP people keep saying that property values will not be affected I question there wisdom. I have done appraisals for over 20 years in my job with U.S.D.A. and I have not found property adjacent to any such facility as the one being proposed to not be affected. 1

Not only will the noise and visual affects be a problem for us but our property will feel the majority of the affects of the plume from the plant. Much of the year the prevailing winds are southwest which will direct the plume directly towards our property which is also at a higher elevation. 2

OSP has made a token offer to the Burrillville residents to offset any loss in property value but nothing has been even proposed in either Burrillville or Uxbridge to compensate property owners other than home-owners. Mitigation measure #15 should be amended to include all property owners not just residents. 3

We have already been severely impacted by the Algonquin Gas Co., A.T. & T., & Tenn Gas Co. easements as well as the Boston Edison Co. purchase which cut our property in to and don't need another utility reducing the value of our property. They should either stay out of the area or compensate the abutters either by an outright purchase of any affected property or at a minimum compensate all affected property owners for any loss of value. 4

There are two other areas of the DEIS that should also be looked at more closely. The DEIS states that the Ironstone site would not affect property owners as to visual or noise pollution. Our home farm is located directly across the reservoir from the alternative site and most definitely would be affected. 5

The other area of concern is the oil pipeline. The proposed line will run through N. Smithfield in areas that are entirely residential and rely on well water. A high presure oil pipeline through such a thickly settled residential area would become a major problem if there were a leak. I attended the Burrillville zoning meeting last night and they have put a condition on their zoning exception that the pipe be a double wall pipe in Burrillville. The pipeline should either be routed away from the residential areas in N. Smithfield or at a minimum be of double wall construction. We have a landfill that is on the EPA superfund list because of the groundwater contamination problem on one side of us and do not need a oil pipeline on the other side. 6

Sincerely,

James N. King

c.c. Lonie Lister Proj. Mgr.

W-84

April 18, 1988

Reference Docket NoCP87-132-001

Secretary
Federal Energy Regulatory Commission
825 North Capital Street, N.E.
Washington, D.C. 20426

GIC3

To whom it may concern:

I am a resident of West Ironstone Road, Harrisville, Rhode Island. This is the proposed location of the Ocean State Power Project.

After reading the D.E.I.S. and attending all of the hearings, including the one on April 14, 1988 with members of F.E.R.C, I feel I must write to you to express my concerns and those of my family.

There are many things in the D.E.I.S. that concern me. The first one is the very obvious conclusion that the Sherman Farm Road site is by far the worst site available to O.S.P. The statement "will negativiely impact quality of life" is found in almost every area that was studied! The Ironstone site however has little or no effect on quality of life of which I place a very high priority. The Sherman Farm Road site has the most residences within half a mile - twice as many as alternate sites.

On page 5-1, you state that the construction of the proposed power plant at the Sherman Farm Road site preferred by O.S.P would have significant effects on water use and local land use, and would effect protected wetlands. You also state that construction of the plant at this site would be convenient for O.S.P.

Items such as fogging, icing, lighting, and noise would be perceived by local residences to be severe.

You also state that on page 5-2 that residents in the immediate vicinity of the proposed site would suffer a loss in property values. Under mitigative measures on page 5-6, #15 states that a "buyout" plan or some comparable compensation program be establised for local land owners.

There are many other issues, which were brought up in the meeting on April 14, 1988 that I will not go into, but would ask that they be studied in full by F.E.R.C.

W-85

1

GIC3-1 Staff notes these concerns and comments. Ironstone may be perceived as a better site environmentally (Section 2.1.6.4); however, Sherman Farm Road is still rated as an acceptable alternative. Please be assured that a thorough search was conducted to assess the impacts and alternatives and that they were reported throughout the DEIS. FERC Staff does not disagree that land use, fogging, icing, lighting, and noise may be perceived by nearby residents as having a locally significant impact, but these are within legal limits.

GIC3 (cont'd)

I believe that F.E.R.C. should be looking at the facts and these facts all point to the Sherman Farm Road location as being unacceptable as compared to the Ironstone site or an appropriate industrial site. To put a major industrial site in the middle of a rural, residental neighborhood surrounded by wildlife refuge areas should not even be considered when the only major reason for choosing the site is for the convenience of the company building the project.

1 cont'd

I would in particular, like to address the "buyout" issue. Eight years ago we moved to Burrillville because of the local beauty, quiet, and natural surroundings. This, we felt was the best environment we could offer our daughter to grow up in. Our daughter was only two years old then; now she is ten and her quality of life will never be the same again! When we built our home, we put everything we had into making it a nice place to live as a family. If Ocean State Power does get the permit to build this plant, I very strongly request that a full buyout plan be developed and /or choice of compensation for loss of quality of life and reduction of property values. This plan should be very similar to the plan developed by A.E.S., who is also trying to build a similar plant in Woonsocket, R.I. I feel A.E.S. should be complimented on the way they went about their project plans - OUT IN THE OPEN, and with full cooperation towards all affected residences.

I propose that Ocean State Power be required as part of the permit process to offer to purchase outright all affected properties within the boundries of West Ironstone Road, Douglas Pike, and Sherman Farm Road, not only the abbutting property owners, but on both sides of the street. For 100% of fair market value based upon a formula which would give a true figure of worth before announcement of the power plant. Besides this purchase price, a sum of money should be given to each property owner for moving expenses, and disruption of life and family. My figure would be estimated at approximately $10,000. Again, I refer you to the A.E.S. proposal. I also believe that all property owners be given a choice, good for up to 2 years after the completion of the project (if approved) to accept the buyout plan or to stay and be compensated for quality of life disruption and loss of property values. These amounts should be determined by independent appraisers by both OSP and landowners and an impartial arbitrator if no agreement can be reached.

2

To stay in my home, which I designed and built, and do not want to leave, a settlement in the tens of thousands of dollars would be necessary, I believe I would loose almost $50,000 in property value if this plant is built. My home faces the plant site, and your artist's rendering on page 2-30 could have been taken from my picture window!

Please take into consideration that if we have to move, or elect to move, there is much more that money at stake.

1 - Trying to find another appropriate home of the same caliber as the one we now have.

2 - Higher mortgage interest rates, points charges, and closing costs that we would have to pay.

3 - Most affected would be our daughter, who has grown up here and has met all her friends here. To leave, possibly the area, means that she would have to change schools, loose her friends and affect her life dramatically at a delicate age.

GIC3-2 Ocean State Power has proposed a compensation plan that it believes is equitable for this situation. OSP will provide a total of $300,000 to the Towns of Burrillville and Uxbridge for development of a property value stabilization plan. Additional funds to be made available through other monetary offers made by OSP could be used if necessary. OSP argues that there would be no diminution of property value; see Ocean State Power comment GIC8-20 for additional information.

The FERC Staff takes no position on the sufficiency of the "compensation plan" proposed by OSP. Staff does note, however, that it falls substantially short of the "property value protection plan" proposed by AES (described in Appendix F). The Staff's recommendation has been retained but modified. The Staff believes that local residents should be adequately compensated for property value losses that result from proximity to the plant. The AES Riverside plan (see Appendix F to the FEIS) is exemplary, in Staff's opinion.

I do not believe that you would allow O.S.P. to be licensed with out addressing these concerns.

The article in the Woonsocket Call on April 14, 1988 in which O.S.P. and Burrillville Town Council have approved a $200,000 buyout plan for affected landowners was a shock, not only because the $200,000 wouldn't even purchase one home, but that as property owners, we were not even approached or consulted on this agreement. This is only another instance of a total disreguard for the landowners affected by this power company. 2 cont'd

I urge you to please consider all of the facts presented here and at the meeting of April 14,1988 and to take the proper action to put this power plant where it belongs, in a INDUSTRIAL AREA and to mandate as part of the licensing procedure a fair and equitable compensation plan.

I would like to also thank you, in closing, for the fine work on the D.E.I.S. and to please consider a supplement to the D.E.I.S. to address the issues brought up at the April 14, 1988 meeting.

Again, I thank you for the opportunity to address my concerns to your staff.

Please feel free to contact me at anytime for any information or clarifications.

Sincerely,

Stephen F. Koback
Paula A. Koback
Jennifer D. Koback

Stephen F. Koback
Paula A. Koback
Miss Jennifer D. Koback
114 West Ironstone Road
Harrisville, Rhode Island 02830

M-87

RECEIVED BY

APR 28 1988

Environmental Evaluation Branch

BOX 129 K
ALDRICH ST.
UXBRIDGE, MA. 01569
APRIL 22,1988

MR. LONNIE LISTER
PROJECT MANAGER
ENVIRONMENTAL EVALUATION BRANCH
OFFICE OF PIPELINE AND PRODUCER REGULATION
ROOM 7102
825 NORTH CAPITOL STREET, N.E.
WASHINGTON, D.C. 20426

GIC4

DEAR MR. LISTER:

I HAVE ENCLOSED A PLAN OF THE IRONSTONE INDUSTRIAL PARK TO BE DEVELOPED IN UXBRIDGE OFF RT. 146. THIS PLAN WAS PRESENTED TO THE PLANNING BOARD IN EARLY APRIL, AND ALTHOUGH IT IS NOT FINALIZED, IT DOES GIVE THE BOARD AN IDEA OF THE 280 ACRE SITE. 1

W-88

I WOULD LIKE TO COMMENT ON A PERSONAL NOTE REGARDING COOLING TOWER PLUME SALT DEPOSITION. I HAVE BEEN OPERATING A CHRISTMAS TREE FARM ON MY 8 ACRES FOR ABOUT 4 YEARS. CURRENTLY I HAVE OVER 2500 TREES IN THE GROUND, AT VARIOUS STAGES OF DEVELOPMENT. THIS REPRESENTS A CONSIDERABLE INVESTMENT IN BOTH TIME AND MONEY. PAGE 4-32 OF THE DEIS STATES " THE MAXIMUM ANNUAL SALT DEPOSITION RATE WAS PREDICTED TO BE 39 KG/KM^2/MO AT APPROXIMATELY 2.6 KM SOUTH OF THE TOWERS[FIG 4.1-3]." MY PROPERTY FALLS BETWEEN 1000 AND 2000 FT. FROM THE SITE. MY CONCERN IS THE SALT DEPOSITION ON THE YOUNG SEEDLINGS. A WHITE SPRUCE GROWS TO 6 FT. TALL IN 7 TO 10 YEARS. USING THE CONVERSION FACTOR OF 0.00894 TO GET LBS./ACRE, I CAN EXPECT TO HAVE OVER 4 LBS. OF SALT FALL OVER EACH ACRE OF MY PROPERTY PER YEAR. CARRYING THIS OUT OVER THE 10 YEAR GROWING CYCLE, I CAN EXPECT TO HAVE BETWEEN 28 AND 40 LBS. 2

GIC4-1 Receipt of the site plan is acknowledged and appreciated. Figure 2.1-17 is based on this document. Please see also the response to comment FA2-11.

GIC4-2 The maximum predicted plume salt deposition of 39 kg/km^2/mo, was predicted to occur over a very small area 2.6 kilometers south of the project site, or about 8,600 feet south-southeast of the Laferriere property. It should be noted that the primary purpose of the modeling analysis is to conservatively determine an upper bound of the impacts associated with the cooling tower operation. The predicted annual average salt deposition illustrated in FEIS Figure 4.1-2 should be regarded as an approximate representation of what might occur. The most important point this figure demonstrates is that the area of maximum impact is relatively small. The predicted direction of the impact should not be considered to be precise. The predicted salt deposition rate in the vicinity of the Laferriere property is illustrated to be less than 1 kg/km^2/mo, which equates to less than 0.1 lb/a/mo or 1 lb/a over the 10-year growing cycle. Please refer to Section 4.1.5.1.2 for a discussion of the effects of cooling tower drift on vegetation. The deposition rate considered toxic to vegetation is more than 35 times greater than that predicted to occur on the Laferriere property. It should be noted that the term "salts" does not necessarily refer to sodium chloride, but to a number of compounds that may be present in the river water and are ionic or crystalline in nature. With regard to the consistency of FEIS Figures 4.1-1 (plume water deposition) and 4.1-2 (plume salt deposition), please refer to the response to comment FA3-19.

OF SALT DEPOSITED ON MY TREES.

I HAVE SPOKEN TO A NUMBER OF TREE GROWERS AS WELL AS THE UNIVERSITY OF RHODE ISLAND AND UNIVERSITY OF MASSACHUSETTS FORESTRY DEPARTMENTS. MR. DAVID WALACE, ASSOCIATE PROFESSOR OF PLANT PROTECTION [401-295-0612] AT U.R.I., AND DR. G. SMITH [413-545-2665] AT U.MASS. , HAVE BOTH STATED THAT I SHOULD BE "VERY CONCERNED". I WOULD HOPE SOME FUTHER MODELS COULD BE WORKED OUT TO HELP ME WITH THIS PROBLEM .

2 cont'd

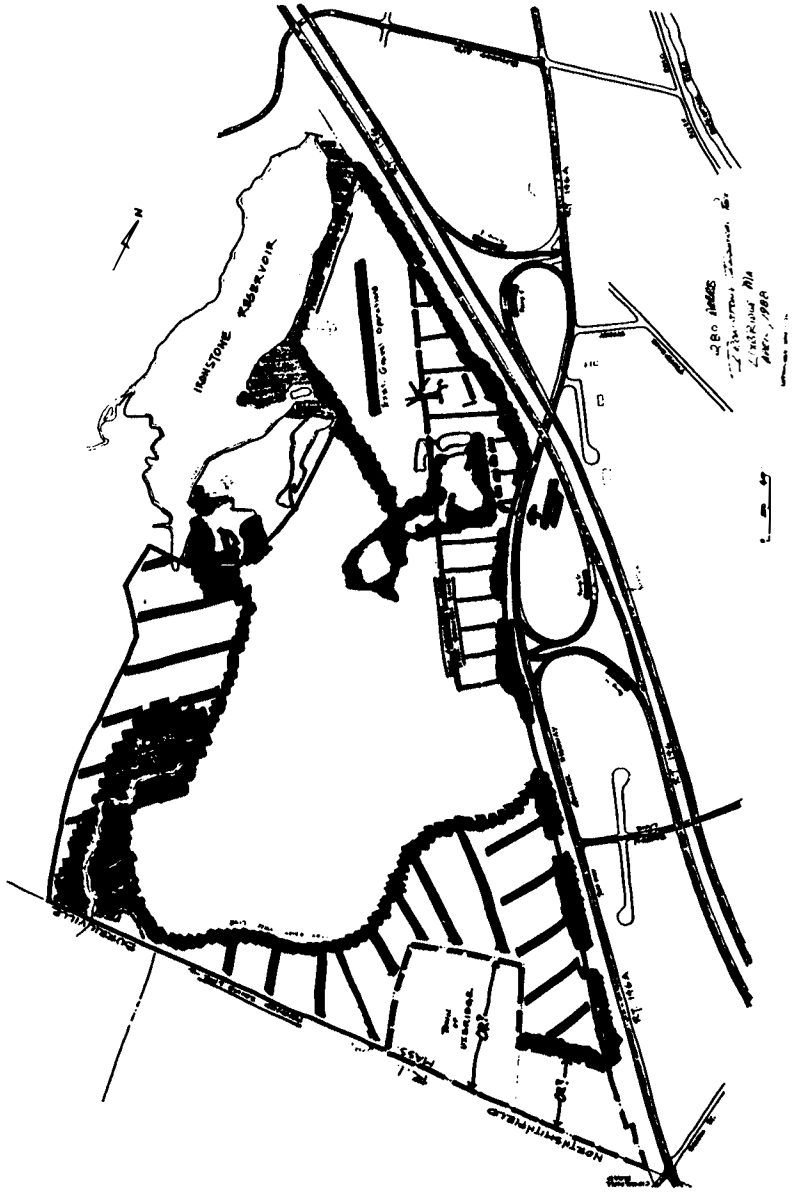
AS YOU KNOW, THE PLUME WATER DEPOSITION FIGURE ON PAGE 4-31, AND FIG. 4.1-3 ON PAGE 4-33 DO NOT SEEM TO COINCIDE.BECAUSE OF MY PROXIMITY TO THE PROPOSED FACILITY, I FEEL SALT COMBINED WITH OTHER EMISSIONS , COULD SEVERELY DAMAGE MY TREES.

I WANT TO THANK YOU FOR THIS OPPORTUNITY YOUR AGENCY HAS GIVEN US. I KNOW THERE ARE MANY DIFFICULT QUESTIONS THAT MUST BE ANSWERED, AND IT IS IMPOSSIBLE TO PLEASE EVERYONE. YET I HOPE YOUR AGENCY WILL BE FAIR, AND UNDERSTAND THE PREDICAMENT OF THE CITIZENS.

VERY TRULY YOURS,

David P. Lafergiere

DAVID P. LAFERGIERE



GIC5

Burrillville Special Education Department
95 East Avenue • Harrisville, RI 02830
Telephone (401) 568-7982

READ & REPLY

PRIORITY
URGENT
SOON AS POSSIBLE
NO REPLY NECESSARY

TO: Lonnie Lister

DATE 4/20/88

SUBJECT Ocean State Power Plant

MESSAGE

Dear Mr. Lister,

I attended the hearing in Woonsocket for the proposed power plant. I think that if safety needs are met then the power plant should be built in Burrillville. One speaker noted that at least 85% of the average citizen wants the plant and I concur. The minority who don't want it were vocal. I did not speak because I did not want some of the "hot heads" to start bothering my family at home. People don't drive 15 miles from Burrillville to Woonsocket unless they are angry.

SIGNED Bob Mashon

23 Reservoir Rd.
Pascoag, RI. 02859
401-568-6110

REPLY

APR 22 1988

Siting Board
Energy Facility Evaluation
Branch

SIGNED _____ DATE _____

RECEIVER: WRITE REPLY, DETACH STUB, KEEP PINK COPY, RETURN WHITE COPY TO SENDER.

W-90

New England Power Service

New England Power Service Company
25 Research Drive
Westborough, Massachusetts 01582-0099
Tel (617) 366-9011

Mark E. Slade
Attorney

April 22, 1988

RECEIVED BY
APR 25 1988
Environmental Evaluation
Branch

Mr. Lonnie Lister
Project Manager
Environmental Analysis Branch
Office of Pipeline and Producer Regulation
Room 7312
825 North Capital Street, N.E.
Washington, DC 20426

RE: Comments on the Ocean State Power Project
Draft Environmental Impact Statement

GIC6

Dear Mr. Lister:

We are pleased to have the opportunity to comment on behalf of New England Power Company (NEP) and our affiliates regarding the Ocean State Power Draft Environmental Impact Statement. NEP's interests in this project are manifold. NEP's affiliate, Narragansett Energy Resources Company is a 20 percent equity participant in the Ocean State Power project. NEP has agreed to purchase 26 percent of the power produced by the first OSP unit, and is currently negotiating to purchase power from the second unit as well. This power will help NEP supply the needs of three affiliated retail subsidiaries, which include The Narragansett Electric Company, which serves over 300,000 customers in 27 communities in Rhode Island.

W-91

The Commission and its consultant, Dames & Moore, have produced a comprehensive and thorough DEIS in a very timely fashion. We are very pleased that the DEIS concludes that it is prudent to pursue a building schedule that would result in the availability of both OSP units in the early 1990s. The need for OSP power becomes increasingly apparent in view of the unabated load growth and the continuing uncertainties in New England's electric energy supply. We are also pleased that the DEIS concludes that the use of the Sherman Road site is an environmentally acceptable choice. We trust that the quality and thoroughness of the DEIS will make possible the expedient preparation of an FEIS so that FERC will be able to move forward on the authorization for pipeline construction in June of this year.

GIC6 (cont'd)

Although the environmental analysis is generally comprehensive and accurate, some of the mitigation measures suggested seem unrelated and unsupported by the underlying analysis. Of particular concern are some of the mitigation measures involving the impacts of the plant on the area which will immediately surround it. We appreciate the desire to limit the plant's impacts on surrounding properties. However, some of the mitigation measures suggested are directed to the policy decision involved in deciding if the plant should be located at the Sherman Road site, and not to the plant's physical impacts. In doing so, the measures overstep the bounds of the NEPA process.

Of particular concern is mitigation measure No. 15 (DEIS page 5-6) in which the FERC staff recommends that OSP be required to "develop a buy-out plan or propose some comparable compensation mechanism to compensate local residents who would be most significantly affected by the plant". This measure does not demand further environmental mitigation, but rather demands mitigation of speculative economic effects that may result from the construction of the plant. We believe the measure is inappropriate for an environmental impact statement and should not be included in the FEIS. Our reasoning follows. 1

NEPA is "not a vehicle for the airing of general policy objections" but is "addressed to the end of protecting human health and welfare only through the means of protecting the physical environment". Olmstead Citizens v. U.S., 793 F.2d 201, 204 (8th Cir. 1986). To construct the plant at Sherman Road, OSP required a zoning change, which had to be enacted by local elected officials. This decision has now been made in OSP's favor. The zoning decision reflects a local legislative balancing of the general welfare of the community and the local impacts of the plant. With this policy decision now in place, the mitigating measure is even more inappropriate. "The political process and not NEPA provides the appropriate forum in which to air policy disagreements" Met. Edison v. PANE, 460 U.S. 766, 777 (1983). The buy-out plan measure is plainly directed to the policy decision of locating the plant and not to its physical impacts. It is therefore outside the scope of NEPA.

Several residents stated at the public hearing on the DEIS (held April 14, 1988) that they had relied on the area's zoning when they moved there. Unfortunately, this reliance is misplaced. There is no right in a landowner to a particular zoning designation. See Steel Hill Development vs. Sanbornton, 469 F.2d 956, 961 (1st Cir. 1972). Almost any local zoning change results in some parties experiencing economic losses and others experiencing economic gain. Other agencies, including FERC, constantly make decisions locating facilities necessary for the general welfare of the larger community, but having locally adverse impacts. Not all impacts from these decisions can or should be mitigated. Such decisions can have massive impacts on property values before rising to a level of compensable interference with individual property rights. To

W-92

GIC6-1 Please see the responses to comment GIC3-2.

GIC6 (cont'd)

deserve compensation, offsite impacts must rise to the level of a nuisance (private interference) or a taking (government interference). Even if the zoning change to allow the OSP plant did rise to such a level, the residents recourse would be against the municipality and not Ocean State Power. NEPA should not be used as a vehicle to shift purely economic burdens of the political decision making process onto one who benefits from a democratically made zoning change.

Further, the DEIS does not reach a conclusion on the relative impacts and benefits of the plant that is contrary to the local policy decision. Other allowable uses of the property, which would not require an EIS, could have similar or more severe impacts. There is no suggestion that any of the property near the plant site will become unuseable. The DEIS states at p. 4-101 "adverse socio-economic effects of the project are not believed to be significant. The major problem with these effects is they would be concentrated in relatively small areas in the vicinity of the plant site and the . . . pipeline corridors. The compensating beneficial economic effects of the project would be distributed over a much larger area." The speculative economic impacts addressed by the proposed mitigation measure are not sufficiently related to a significant impact on the physical environment that they should be cognizable under NEPA. They result from a policy decision which should not be influenced or subject to reconsideration as a part of the Federal NEPA process.

W-93

We acknowledge that Ocean State Power has elected to pursue an agreement with the towns affected (Burrillville and Uxbridge) to provide certain funds to be used at the towns' discretion for stabilizing property values that may be affected by the plant. Although this would apparently satisfy the proposed mitigation measure, this action does not contradict our position that the measure involves issues outside the scope of the NEPA process.

We also suggest that the proposed mitigation measure would set a very harmful precedent for future FERC activities. Many projects under FERC jurisdiction (e.g., gas piplines, hydropower projects) would be impossible to site if localized offsite economic impacts are to require mitigation through compensation. By providing FERC control over these projects, Congress has recognized the need to look beyond the local impacts and to consider regional and national needs in balancing the negative impacts and benefits of these projects. If FERC takes the position that there may be no locally uneven impacts it will abdicate its essential role. 2

We wish to thank FERC for this opportunity to make our position known and despite the above objection, we again

GIC6-2 Please see the response to comment GIC3-2.

express our thanks for your efforts in producing what is generally a fine document.

Sincerely yours,

Mark E. Slade
Attorney

KAVINOKY & COOK
ATTORNEYS AT LAW
120 DELAWARE AVENUE
BUFFALO, NY 14202
(716) 856-9234

April 19, 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

FILED
OFFICE OF THE SECRETARY
88 APR 26 AM 9:55
FEDERAL ENERGY REGULATORY COMMISSION

National Fuel Gas Supply Corporation
10 Lafayette Square
Buffalo, New York 14203

Attn: David Weitz, Legal Counsel

Tennessee Gas Pipeline
485 Sunset Drive
Hamburg, New York 14075

Attn: A. J. McDermott, Right of Way Agent

New York State Public Service Commission
Three Empire State Plaza
Albany, New York 12223

Attn: Administrative Law Judge Furlong

Federal Energy Regulatory Commission
825 North Capitol Street, N.E.
Washington, D.C. 20002

Re: FERC Docket CP-87-132-001: Tenneco
FERC Docket CP-88-94-000: National Fuel
PSC - Application by NFG for 20-mile gas line
in Niagara County (T-88-022)
Our File No. 66/14,413

Gentlemen:

We represent Niagara Recycling, Inc., 2321 Kenmore Avenue, Kenmore, New York 14217. Niagara Recycling, Inc. is an affiliate of Browning-Ferris Industries, Inc. In 1983, Niagara Recycling acquired the shaded portion of the property located on the attached site plan consisting of 68.08 acres in the Town of Lewiston, County of Niagara, New York for a proposed sanitary landfill.

W-95

GIC7

GIC7 (cont'd)

As noted on the attached site plan, the northerly portion of the property is presently bisected by a 50-foot right-of-way for an existing 20-inch underground Tenneco high pressure gas pipeline. Our client's plans for the property will, of course, have to take into account Tenneco's rights pertaining to that right-of-way.

Tenneco proposes to construct an additional high pressure gas pipeline across the property. National Fuel also proposes to construct an additional high pressure gas pipeline across the property.

We understand that both the proposed Tenneco line and the proposed National Fuel line follow the route of the existing Tenneco pipeline to the east of Porter Center Road. We also understand that the existing Tenneco gas pipeline, the proposed Tenneco gas pipeline and the proposed National Fuel gas pipeline are located at approximately the same point on the shore of the Niagara River to the west.

We suggest that if it is indeed necessary to have three high pressure gas pipelines carrying gas from approximately the same point to approximately the same point, that the three pipelines all be located within a single right-of-way to minimize the detrimental effect to the various parcels which they cross.

We would like to have notice and an opportunity to appear at any hearings before either the PSC or FERC, the purpose of which is to hear evidence concerning the proposed route of either the Tenneco line or the National Fuel line.

Very truly yours,

Allan R. Lipman

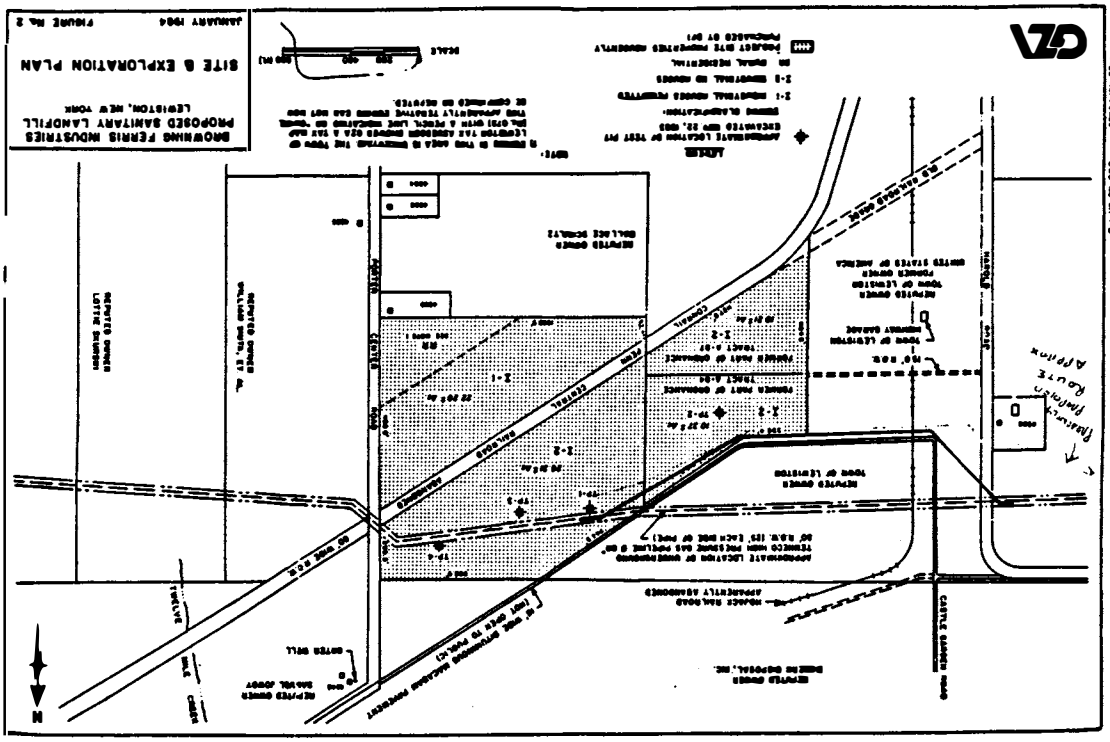
ARL/ejw
Enclosure

1

GIC7-1 Please see the response to comment SA5-1.

W-96

GIC7 (cont'd)



OCEAN STATE POWER
110 TREMONT STREET, BOSTON, MASSACHUSETTS 02108 TELEPHONE (617) 451-1103 TELEX 95-1459

GIC8

April 25, 1988

RECEIVED BY
APR 25 1988

Lois D. Cashell
Acting Secretary
Federal Energy Regulatory Commission
825 North Capital Street, N.E.
Washington, D.C. 20426

Re: Docket #CP87-131-01 and #CP87-132-002

Dear Secretary Cashell:

Ocean State Power is pleased to submit the enclosed comments on the "Ocean State Power Project Draft Environmental Impact Statement".

Sincerely,
OCEAN STATE POWER

J. O'Neill Collins, Director
Environmental Affairs

JOC:jh
Enc.
cc: L. Lister, FERC
C. Riva, OSP
W. Butler, D, S&M

Ref: MDOS002

W-98

OCEAN STATE POWER
110 TREMONT STREET, BOSTON, MASSACHUSETTS 02108 TELEPHONE (617) 451-1103 TELEX 95-1459

April 25, 1988

Ocean State Power Comments
on the
Federal Energy Regulatory Commission's
"Ocean State Power Project
Draft Environmental Impact Statement, March 1988"

Docket Nos. CP87-131-001
CP87-132-001

I. INTRODUCTION AND OVERVIEW

Ocean State Power is pleased to submit these comments in response to the Draft Environmental Impact Statement (DEIS) on the Ocean State Power Project, Docket Nos. CP87-131-001 and CP87-132-001. These comments are in addition to the comments made by OSP at the April 14 hearing in Woonsocket, Rhode Island. A copy of those earlier comments is attached.

Approach

In the comments presented herein, OSP first addresses those areas describing environmental consequences of the proposed action, presented in Section Four of the DEIS as having a significant environmental impacts, and upon which there is new information. Our goal is to demonstrate that such identified impacts, while they may remain in the category of "significant," should not be considered major, and certainly can be mitigated.

OSP then reviews the DEIS Section Five "Conclusions" and provides comments as to those areas where OSP does not believe the evidence supports conclusions of adverse impacts.

Next, OSP reviews the alternative sites and proposes additional information supporting the Burrillville site as the preferred alternative. OSP then comments on each of the suggested mitigation measures.

Finally, OSP provides additional information in response to comments made by others on the DEIS during the DEIS review period.

Overview

OSP believes that the analyses undertaken in support of this Environmental Impact Statement identify the need for additional electric power, and that such need should be met in the surest and swiftest manner appropriate. OSP believes that the evidence and analyses support the conclusion that environmental consequences of a combined cycle power plant such as proposed by OSP will have minimal environmental impacts and that what impacts will unavoidably occur can be readily mitigated.

OSP further believes that the alternative siting analyses support the conclusion that the alternative sites considered represent the universe of reasonable alternatives and, furthermore, that neither of the two primary alternative sites are clearly environmentally superior to Sherman Farm Road, and that the latter does not present any insurmountable environmental impacts. OSP believes that the record demonstrates that local environmental impacts and state and local environmental concerns can be addressed and mitigated appropriately at the state and local level.

OSP remains firmly convinced that the record demonstrates that the Burrillville site is the one which will result in the needed production of power with the most certainty and in the most timely fashion, while at the same time presenting no significant adverse environmental impacts. At a minimum, no alternative site has been shown environmentally preferable to Burrillville, and in terms of existing infrastructure and availability of necessary permits, i.e. expense and time factors, it is clearly superior to other sites. OSP believes that the final EIS should accurately reflect the following facts in support of that conclusion:

- the Burrillville site has been a utility nerve center for decades; it is a large site, crossed by high voltage powerlines, a gas pipeline and a large existing substation,and thus is exceptionally well positioned relative to fuel supply and available electrical transmission lines with capacity for Ocean State's 500 MW;

1

GIC8-1 Staff notes these comments, but observes that the gas pipeline referred to is not proposed by OSP for delivering fuel to the plant; a new 11-mile natural gas pipeline to another trunk pipeline is proposed.

GIC8 (cont'd)

- the Burrillville site now has strong local governmental support and has fully addressed local concerns through agreements with the appropriate Town Councils regarding both taxes and contributions for community education, civic projects and neighborhood property value stabilization, and through the recently completed zoning approval of the OSP facility.

- this site presents the fastest and surest route to obtain the environmental and siting approvals necessary to construct a facility which the region is depending on to meet regional energy needs;

- to shift to another site at this stage, without a finding that the Burrillville site presented insurmountable adverse environmental impacts, would significantly delay needed power production while adding to its cost, and finally,

- the regional need for power greatly exceeds the 500 MW that OSP can produce, other good sites will be necessary for additional power generation, and perhaps some of the alternative DEIS sites can in the future fill that role.

2

GIC8-2 Staff notes and generally agrees with these comments, recognizing of course that they are based in OSP's self-interest.

II. ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION
SECTION 4, DEIS

Water Quality and Quantity

The DEIS states on page 4-9 that under a worst case scenario, "the maximum water withdrawal would be nearly 7% of the 7Q10 flow, and over 32% of the minimum daily flow record over a 56 year period at the Woonsocket Gauge." The minimum flow of record is based on nearly 50 years of data between 1929 and 1985. However, the recorded flows over this 56-year period are not representative of present day flows due to the discharge during the past 12 years of treated wastewater from the Upper Blackstone Water Pollution Abatement District Wastewater Treatment Plant. This plant, which went on-line in August 1976, has a design capacity of 86 cfs (54 mgd) and an average discharge of 54 cfs (35 mgd). Because the source of municipal water which is treated at this plant and discharged to the Blackstone River is largely from reservoirs and water supplies outside the Blackstone River drainage basin, this discharge represents a substantial supplement to the river's normal low flow. This supplemental flow is reflected in the flow data recorded at the gage in Woonsocket. For example, the 7Q10 flow calculated over the period of 1976-1984 is slightly over 111 cfs, or 9% higher than the 56-year 7Q10 flow rate (102 cfs). In addition, from August 1976 to September 1986, river flows below the 56-year 7Q10 of 102 cfs have only been recorded on 6 days, which is approximately 0.16% of the 10-year period. The lowest flow recorded since August 1976 was 35 cfs. (Ecology and Environment, April 20, 1988, memorandum attached). 3

Examination of the daily flow data also indicates that nearly all of these extreme low flows were isolated 1-day occurrences, and did not exhibit the pattern of gradual flow reduction which might be expected if the low flows were caused by drought conditions. Rather, it is likely these isolated low flows resulted from the temporary ponding which was reported in the EIS to occur at some of the upstream hydroelectric facilities. If these facilities adhere to "run-of-river" restrictions, the occurrence of these 1-day extreme low flow excursions would likely be reduced. 4

Additional water quality studies prepared for OSP demonstrate that the water quality impacts of OSP on the 5

GIC8-3 Staff notes this comment.

GIC8-4 Staff concurs with this comment.

GIC8-5 The results of the two indicated studies have been incorporated in the FEIS (Section 4.1.2.1.2).

W-101

Blackstone River are indeed insignificant. These studies include: "Effects of Ocean State Power Water Withdrawal On Dissolved Oxygen in the Blackstone River," Ecology and Environment, February 1988, and "Assessment of Potential Impacts of Ocean State Power Water Withdrawal on Metals Levels in the Blackstone River," Applied Science Associates, February 1988. Both studies were submitted to FERC by OSP on April 6, 1988.

5 cont'd

The Rhode Island Department of Environmental Management (RIDEM) has agreed with OSP that the impacts of OSP's planned withdrawal on heavy metal concentrations are insignificant and that no mitigating efforts are necessary. OSP has agreed with RIDEM to mitigate its dissolved oxygen (D.O.) impacts on the Blackstone River, as may be necessary. RIDEM does not propose to limit OSP's ability to withdraw water from the Blackstone River because OSP has agreed to mitigate the DO impacts. (RIDEM, March 29, 1988 letter, attached).

GIC8-6 Comment accepted; please see the revised Section 4.1.3.4.

Air Quality

The DEIS at page 4-24 states: "The maximum percent consumption of any standard by the OSP Project is 16% for the gas fired configuration and 13% for the oil fired configuration, both for the Massachusetts 1-hour NO_2 Standard." OSP suggests the following sentence should be added to that paragraph: "For Federal and Rhode Island air quality standards applicable to Ocean State Power, the highest impact on a percent basis when firing natural gas is 0.6% for the annual standard and a 5.2% impact on the three hour SO_2 standard when firing oil.

6

GIC8-7 Comment accepted; please see the revised Table 4.1-11.

Sound Quality

The DEIS finds on page 4-39 that the projected total operating noise levels demonstrate "that the facility would comply with both EPA and the FERC recommended operational guidelines." The table on page 4-37 should be modified to incorporate the 2,000 foot sound impacts of the plant. The Bolt, Barrineck & Newman Environmental Noise Impact Report (November, 1987 attached) on the plant noted that at 2,000 feet the operational noise impact based on existing ambient noise will be Leq 42 decibels and Ldn 48 decibels. This demonstrates that the sound levels attenuate quickly as distance from the plant increases.

7

Ecology

Page 4-41 of the DEIS describes the filling of a small perched wetland located in the center of the plant site. The wetland area lost is described as a .52 acre area "plus a state jurisdictional boundary of 50 feet resulting in a total wetland impact of approximately 1.5 acres." A "jurisdictional buffer zone" is not a wetland. A jurisdictional buffer zone allows the DEM to review activities near a wetland. In any event, the Rhode Island Department of Environmental Management has determined that the small, perched area is not a wetland subject to State review. This half acre area is comprised of two smaller, distinct, one quarter acre areas that are not connected by any defined wetland area. As such, they qualify for nationwide permit status under Corps of Engineer regulations. Thus, there is not expected to be any significant wetlands impact related to the plant construction itself. Temporary wetlands impacts will occur as the oil/water pipelines are constructed across a narrow wetland area in the southeast corner of the plant. Minimal wetland impact will also occur during construction of the water intake structure on the west bank of the Blackstone River in Woonsocket, as described on paged 4-42 of the DEIS. These wetland crossings will be protected by erosion and sedimentation control plans.

8

GIC8-8 The statement has been corrected in FEIS Section 4.1.5.1.1 to show that the small wetland is 0.52 acre and not subject to RIDEM jurisdiction.

Land Use

The statement on page 4-51 in the first paragraph that "present use of the site for electricity generation is a nonconforming use with F5, Farming, though it is compatible with the existing transmission line right of way and switching station", is incorrect. The Burrillville Zoning Officer, by way of a letter of November 6, 1987, found that the power plant would be an allowed use by special exception under Burrillville zoning regulations 11-5.1 Section 4, Number 12, allowing such uses as a sewerage plant, incinerator, or solid waste disposal facility as an allowed use by special exception in an F-5 district.

Furthermore, the Planning Board of the town of Burrillville on December 9, 1987, recommended that the zoning regulations be modified specifically to add an electric generating facility as an allowed use by "special exception" in an F-5 area. The Burrillville Town Council subsequently did amend the town's zoning regulations specifically to include an electric generating facility as a permitted use under a special exception in an F-5 area. Finally, a special exception was granted by the Burrillville Zoning Board on April 19, 1988, for the

9

GIC8-9 Recent actions by the Burrillville Planning Board (regarding allowed uses of the OSP site in an F-5 zoned area) and the Zoning Board (granting a special exception for the OSP plant) are noted. Section 4.1.6.1 has been revised to reflect these actions.

W-103

construction of the Ocean State Power Facility at the Sherman Farm Road site. This zoning approval issued with findings of fact upon receiving testimony in a quasi-judicial hearing, must be given significant weight in FERC's determination whether the OSP facility will cause any significant adverse environmental impacts to the community. A transcript of the Zoning Board Hearing and findings will be forwarded as soon as it is available.

9 cont'd

Water Supply Constraints

The DEIS makes the statement on page 4-53 that, "however, whether OSP's withdrawal permit would constrain industrial development along the Blackstone River cannot be assessed, since no one knows the type and the number of new industries that might locate along the river, much less the amounts of water they may require." The DEIS states later that the water withdrawal has no significant impacts on water quality of the Blackstone. The question here is simply one of water supply. It should be stated that a reduction in the flow from a current 7Q10 in the Woonsocket area of 102cfs to a 7Q10 level 4.4mgd (6.8cfs) lower would not constrain industrial development on the river. Industry has for years been able to locate and be permitted under both Massachusetts and Rhode Island regulations at 7Q10 levels of 95cfs upstream of the OSP intake where the drainage basin is less but still adequate for industrial use of the Blackstone River. Thus, the OSP withdrawal of Blackstone River water should not present any significant constraint on future industrial development.

10

At the bottom of page 4-53 the statement is made that "if no constraints on withdrawal are enacted, withdrawal under low flow conditions could impact canoeing and the aesthetics of viewing the river." River water quality modeling has predicted river height and width under withdrawal conditions both with and without the OSP withdrawal. The maximum impact is expected to be on the order of a 3.7 inch decrease in width and a 3.4 inch decrease in river depth under maximum low flow conditions. A letter report by Ecology and Environment presenting those impacts is enclosed. (Ecology and Environment, December 9, 1987). We doubt these decreases would materially affect aesthetics or canoeing.

If unusual or unpredictable low flow conditions occur as a result of inadvertent temporary ponding upstream on the river, any aesthetic impacts would be most correctly

GIC8-10 Staff notes this comment.

characterized as related to those upstream events of ponding and not related to the OSP withdrawal. 10 cont'd

Water and Oil Pipelines

The statement is made on Page 4-54 that "rerouting the pipeline to follow the transmission line right of way to Route 102 would avoid the expected negative impacts along Douglas Pike." OSP comments that the construction impacts of the water and oil pipelines should be localized and of short duration. The pipeline construction should proceed at a rate of about 300 feet per day. Thus, the noise impact in front of houses along Douglas Pike, is expected to be of short duration. All Douglas Pike construction would be completed in a two month period of time. Rerouting the pipeline to the transmission line right of way would simply move the socioeconomic impacts to a different set of land owners, i.e. to those abutting the transmission line right of way. This is discussed further in our comments on alternate pipeline routes. 11

Transportation

The DEIS states on page 4-55: "Residents along Sherman Farm Road would bear the greatest impact of construction activity since access to the site would be from Sherman Farm Road."

A traffic study was undertaken for OSP by ERT and is contained in the "Ocean State State Power Project Alternative Site Analysis, Volume 2, Supplementary Assessment of Major Alternative Sites," pages 51-54. The FERC has a copy of this report. The ERT study presents the level of service for Sherman Farm Road, State Route 98, that is expected to result from traffic related to construction of the OSP facility. Baseline traffic counts were taken in 1987 and were increased by 5% per year to account for nonproject related background growth in traffic. The capacity analysis performed for peak hour periods for Sherman Farm Road indicate that the road will operate at a level of service "B" during the construction phase of the facility development. 12

Level of service is generally expressed as a range of "A-F" with "A" representing the best conditions and "F" representing the worst. Between these two extremes, a level of service "C" represents a condition of stable operation with occasional delays and backups in intersection areas. Level of service "C" is generally considered a desirable standard for peak hour operation.

W-105

GIC8-11 Please see the response to comment GIC8-34. Staff disagrees that "rerouting ... would simply shift the socioeconomic impacts to a different set of landowners."

GIC8-12 Traffic analysis conducted by OSP's consultant was reviewed during preparation of the DEIS. FERC Staff does not disagree with the results of that analysis, which indicates that roads near the Sherman Farm Road site would operate at acceptable levels of service during both construction and operation of the OSP plant. These acceptable levels of service notwithstanding, the addition of trucks and construction workers to rural, local roads will have an adverse effect on the character and safety of these roads.

GIC8 (cont'd)

Thus, by this traffic analysis, the construction impacts related to transportation should be considered a minor, acceptable impact.

Additional testimony on traffic impacts has been presented to the Burrillville Zoning Board. The Zoning Board's approval of the plant after examination of such evidence should be given great weight.

The statement is made at the bottom of page 4-55 that "the character and safety of West Ironstone Road would be adversely impacted by any construction activity along the road." OSP disagrees that the occasional use of West Ironstone Road by construction equipment or construction employee traffic will create an adverse impact on character and safety for the West Ironstone Road. The Findings of Fact of the Burrillville Zoning Board add credence to OSP's observation that traffic impacts are likely to be minimal.

12 cont'd

Health Effects

OSP does not agree with the statement at page 4-62 of the DEIS that the health effects of 345KV lines which will be utilized by the OSP Project are reasonably similar to those emanating from 765KV lines. We are aware of no evidence equating effects of the two. While we are not convinced there are any adverse effects on health from 765KV lines, to the extent one can extrapolate at all, it is reasonable to believe the electro magnetic field under 345KV lines would be less, and hence have less potential for health effects than undera765KVline. In any event, OSP would like to reiterate at this point that apart from the intertie to the existing substations, no new transmission lines will be required for a 500 MW plant built at the Sherman Farm Road site.

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GIC8-13 Staff notes this comment; please see the revised Transmission Line subsection of Section 4.1.6.6. Also note that virtually no authority in the field believes that the work studying health effects from high voltage transmission lines is complete. There appears to be no widely accepted evidence that firmly establishes any deleterious effects to healthy individuals caused by Extra High Voltage transmission lines.

GIC8 (cont'd)

III. SIGNIFICANT ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION - SECTION 5, DEIS

The statement is made on page 5-1 that "construction of the proposed powerplant at the Sherman Farm Road Site preferred by OSP would have significant effects on water use and local land use, and would affect protected wetlands." Ocean State Power does not agree that the proposed site would cause significant effects on water use, local land use, or that it would cause significant effects on protected wetlands. The detailed comments presented below address each of these issues.

Water Use

The DEIS finds on page 5-1 that the plant's use of 4 million gallons per day "would not by itself be a significant consumptive loss..." This finding goes on however, to state that this use may preempt other potential users of the water." (Emphasis added) There is no rationale presented in the Draft Environmental Impact Statement which supports the concern for preemption of potential new uses of the water. As stated earlier, as can be seen by public and private use of the Blackstone River currently upstream of the Woonsocket intake station, where river flow is much lower, downstream from OSP's intake structure, given minimal volume of OSP's withdrawal relative to total river flow, there will be no adverse impact on potential future users effect either.

OSP does not believe that there keep will be any limits on the use of Blackstone River water keep during low flow periods by Rhode Island's State Department of Environmental Management. The enclosed letter of March 29, 1988, from the Department of Environmental Management, Division of Water Resources, indicates that a 401 Water Quality Certificate will be granted the OSP project, once OSP demonstrates that any necessary third party assistance in mitigating desolved oxygen impacts will be available. OSP is now engaged in discussions with the City of Woonsocket in this regard and expects to obtain City of Woonsocket approvals and contracts within a short period of time. A Bechtel Corporation report identifying readily available DO replenishment techniques is enclosed. (Bechtel "Blackstone River DO Replenishment, April, 1988).

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GIC8-14 Staff notes this comment.

W-107

Property Ownership

The statement is made at the bottom of page 5-1 that the Sherman Farm Road Site "would be convenient and economical for OSP's owners, since electric transmission lines and a switching station are currently present on-site." Ocean State Power believes that this statement and the statement at the bottom of page 5-2 that "the FERC Staff's siting analysis disclosed that the site preferred by OSP is not clearly superior environmentally to other sites identified, notwithstanding OSP's desire to use property owned by one of its member partners", implies a judgment by FERC's staff that the existing switching station and the member partner ownership of a large parcel should not have been an important aspect OSP's decision of where it wanted to site its powerplant.

The fact that the Sherman Farm Road Site is already owned by an investor of OSP reflects a real and significant value. The site is a large one, nearly 150 acres in size. OSP needs only approximately 40 acres. The ability to enter into quick and responsive negotiations for any last minute adjustments on the exact siting of the facility is important. Such adjustments to plant layout may be required by fine tuning for engineering reasons or required to meet environmental requirements or to minimize neighborhood impacts. The ability to be assured of rapid response capability is valuable. Indeed, OSP has recently altered its oil/water pipeline route on the last 500 yards of its route in order to minimize impacts on wetlands and to eliminate the potential for private landowners to refuse access to their land. OSP believes that insufficient weight was given to these flexibility enhancing factors of size and current ownership during the Draft EIS review of the preferred site. Furthermore, the existence of a large switching station on the site and the ability to affect an orderly interconnection without service disruption is also a benefit.

15

Noise and Traffic Impacts

A statement is made on the bottom of page 5-1 that "significant effects would occur within the surrounding rural residential neighborhood during construction due to noise and traffic." However, on page 4-101 in the second full paragraph a somewhat contradictory statement is made that "the increased traffic caused by workers and material and equipment suppliers is believed to be well within the

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GIC8-15 Staff recognizes that siting decisions are based on many factors, including current property ownership. Indeed, ownership or availability of a parcel of land becomes an important factor when all elements of a siting decision (technical, environmental, legal, and cost) are considered. Staff does not wish to imply that ownership should not have been an important part of OSP's overall decision. However, ownership was not and is not an important part of Staff's environmental evaluation of the project. Section 5.1.2 has been revised to delete reference to property ownership.

GIC8-16 Staff notes this comment but does not believe there is a contradiction. Although the increase in traffic caused by construction workers and material suppliers will be relatively small and within the capacity of the existing roadway network in the vicinity of the plant, it is expected that the increase will be noticeable to local residents.

capacity of the road network in the plant vicinity." On this point OSP also wishes to refer the FERC staff to the Traffic and Analysis Study performed by ERT discussed above. There in a section reviewing transportation impacts of the powerplant, particularly pages 5-1 to 5-7, the traffic impacts are demonstrated to be minimal and insignificant. The minor reduction in level of service from a current level of A to B during construction when service level "C" is generally considered acceptable is not a significant impact.

16 cont'd

Noise related to the construction of the powerplant will be controlled to every reasonable degree by the use of good construction practices and the use of all required mufflers on heavy equipment. Furthermore, OSP believes that the construction noise impacts would be relatively similar, and minor, for any alternative site.

Testimony presented at the Burrillville Zoning Hearing stated that construction activities will generally occur only between 7:00a.m. to 5:00p.m. during week days and that there are no current plans for weekend activities. Nor will night deliveries of equipment or materials occur except as an unusual and very infrequent event. Any nighttime or weekend construction should be an unusual event, for example, only such as the need for a continuous concrete pour. Thus, the noise during construction is reasonable both for the activity being undertaken and by its timing when virtually all people are awake and may already at work; it is being mitigated to the most reasonable degree possible.

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GIC8-17 Staff notes this comment.

Perceptions of Significance

The statement is made at the top of page 5-2 that "analyses of operational affects from noise, nightlighting, and cooling tower fogging and icing have shown that these would not be severe, but would be perceived as significant by local residents." (Emphasis added). OSP comments that perceptions of local residents do not in and by themselves create a significant environmental impact. Indeed it is one of the purposes of the final EIS to disabuse misperceptions. The action of the Zoning Board of the Town of Burrillville in its approval of the special exception allowing the OSP facility to be located at the proposed site must be considered important evidence of community perception that whatever these effects may be, they will be sufficiently minor so as not to present an unacceptably deleterious impact on the neighborhood. The findings of fact by a

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GIC8-18 Comment noted; however, Staff maintains that some operational effects that are not significant environmental impacts would be perceived as significant by local residents. Such perceptions cannot be ignored in an environmental evaluation.

local government agency,in a quasi judicial hearing, after presentation of evidence on the consideration of potential impacts, should be given significant weight in the final environmental impact statement. 18 cont'd

Wetlands

The statement is made in the first full paragraph on page 5-2 that "wetlands would be affected at the plant site, at the water intake, and along pipeline routes." Modifications to the pipeline route have been made such that the pipeline will remain within the roadway or on bridges and will not effect wetlands. The Rhode Island Department of Environmental Management has found that there will be no impact on wetlands relative to the pipeline construction along public highways. This was so stated by that agency at the FERC hearing on the DEIS. The statement is also made at page 5-2 that "approximately one acre of wetland would be lost." OSP comments that only two small wetland areas at the plant proper, each less than approximately one quarter acre, would be lost and a small area of wetland would be temporarily impacted during construction of the pipeline at the edge of the plant proper. As discussed in OSP comments on Section 4 of the DEIS, this is not a significant impact on wetlands. 19

Property Value

A statement is made in the third full paragraph page 5-2 that "residents in the immediate vicinity of the proposed site would suffer a loss in property values." OSP does not agree that there would be any loss in property values caused by the powerplant. As covered more completely elsewhere in these comments, OSP has undertaken a study of property values in the plant vicinity, the results of which challenge that assertion. Testimony was presented to the Burrillville Zoning Board that according to studies of recent property sales and recent new construction in the immediate area of the plant since the time its announcement, and according to studies of property values around similar industrial facilities in Rhode Island and Massachusetts, there is no evidence of diminution in property value. The letter prepared by W.E. Coyle and presented to the Zoning Board is attached. Other studies undertaken to assess the effects of resource recovery plants on nearby property values support the W.E. Coyle Study. Two such studies are enclosed for FERC's review. If anything, popular perception would have it that these waste-to-energy plants would create a more significant 20

GIC8-19 Comment noted; Section 5.1.1 has been revised to read one-half acre of wetland will be lost and the word "significant" has been changed.

GIC8-20 Comment noted; Staff concurs that the statement on page 5-2, that residents would suffer a loss in property values, implies a degree of certainty not possible at this time; the wording has been changed for the FEIS to could occur. Please see also the response to comment GIC3-2.

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GIC8 (cont'd)

impact than OSP's to immediate residential neighbors. (See, "Effect of Resource Recovery Plants on nearby Property Values," C.S. Konheim and S.N. Koehler, June 1986. See also, "A Study of the Impact of Resource Recovery Facilities on Surrounding Residential Property" prepared for the Palm Beach County Solid Waste Authority by J.R. Price, March 10, 1986.) The conclusions of both of these separate reports are that the waste-to-energy facilities have not had a negative influence on neighboring property value.

There is no evidence presented in the Draft Environmental Impact Statement that there would be any loss of property value occasioned by OSP's plant. Contradictory or, at least, less certain statements than that on page 5-2 are found elsewhere in the DEIS. The Draft Environmental Impact Statement, page 2-104, states only that "property values may be adversely affected by the construction of a powerplant, but the significance is difficult to determine." (Emphasis added) The Draft continues that "assuming that the greatest impact would be on residential properties, effects could be most significant at the Sherman Farm Road Site which has the highest number of nearby residences." (Emphasis added)

20 cont'd

Ocean State Power has made the commitment to be a good neighbor, and has expressed this commitment through a good neighbor policy through which OSP will provide the towns of Burrillville and Uxbridge with funds for student scholarships and civic projects. During construction, each community will receive $50,000 and $75,00 during the first and second years, respectively. Once the plant is operational, OSP will provide each community with $100,000 per year for scholarships and civic projects for a period of twenty years.

These funds will be administered by local citizen boards in each community. In Burrillville, the $30,000 per year earmarked for civic projects will be administered by the OSP Burrillville Community Foundation. The Foundation will be managed by a board comprised of town council members and appointees, local representatives to the state assembly, and one representative of OSP.

It was the opinion of Burrillville's Town Council that this board of local citizens and officials would be best able to address local concerns over property values and the desire for a property value stabilization program for the area adjacent to the proposed plant. Although OSP does not believe that property diminution will occur, at

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the Town Council's request, OSP has agreed to provide the amount of $200,000 to fund such a program.

Ocean State Power will also provide the Uxbridge Community Foundation with funding of $100,000 to provide a property value stabilization plan for its community.

Thus, both a mechanism and funding exist in the local communities to address concerns regarding potential impacts on nearby residential values. In the unlikely event that any property value diminuation should occur, and in the even more unlikely event that the $300,000 specifically provided for property value stabilization proves insufficient to compensate the few home owners affected, the local Foundations have considerable additional funds available through the OSP contributions for civic projects which could also be used for property value stabilization.

20 cont'd

OSP continues to believe (1) that the minimal environmental impacts of the facility will not cause property values to decline, (2) that the considerable tax benefits offered by the facility will at a minimum enhance desirability of Burrillville housing sufficiently to assure that no diminution in property value for area residents should occur, and (3) that the locally administered property maintenance program provides more than sufficient additional assurances at the local level. Finally, as discussed more fully below, OSP strongly objects to the Federal encroachment in local government perogative regarding zoning and land use development decisions that a federally required property value stabilization plan would occasion.

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Alternatives Review and Assessment

In the comparison of alternative sites, the question is presented as to whether or not there is another site more environmentally appropriate for the location of a gas fired combined-cycle generation facility such as OSP proposes to develop at the Sherman Farm Road Site. OSP believes that some of the alternate sites reviewed present a reasonable location, but not a superior one, for a 500MW powerplant such as that proposed by OSP.

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As demonstrated in the DEIS, there are no truly significant environmental or socioeconomic impacts resulting from the operation of the OSP plant. The location of the plant in a relatively rural area (such as

GIC8-21 Staff generally agrees with these comments, recognizing of course their basis in OSP's self-interest.

exists at <u>each</u> of the three compared sites) is equally acceptable.

The Burrillville site meets all minimum environmental criteria for location of a gas fired powerplant. It also offers a number of significant economic and other advantages over alternative sites. In Burrillville, the Town Council, the Town Planning Board, and the Town Zoning Board have each found that a powerplant such as OSP proposes can appropriately be located at the Sherman Farm Road Site without deleterious impacts to the neighborhood or the community. As a result of these actions, the Sherman Farm Road site presents the clearest, straightest avenue to approval. 21 cont'd

OSP's comments on the DEIS conclusions relative to alternative sites can best begin with a review of the Comparative Analyses Table presented at pages 2-98 through 2-101 of the DEIS.

At page 2-98, under the issue of "<u>Site Development and Construction of the Plant</u>, there should be added a new initial category entitled "Zoning." In that section, Sherman Farm Road should be designated as currently <u>zoned</u> for an electric generating facility. The Ironstone Site should be designated as zoned agricultural, with a note that the Town Council is currently reviewing restrictions on use because of an existing on-site aquifer are that it earlier turned down a request for the zoning category OSP would need. 22

GIC8-22 Comment accepted; please see the revised Table 2.1-26.

In the "Wetlands" category , the Sherman Farm Road description should state that less than one half an acre of wetland is impacted. 23

GIC8-23 Comment accepted; please see the revised Table 2.1-26.

In the "Near Site Impacts" category, in the Sherman Farm Road description the statement that blasting is expected to be noticeable should be deleted. Testimony has been given at the Burrillville Zoning Board hearing that blasting will not be noticeable off site. Modern techniques of blasting will result in minimal noise. The statement that blasting may impact horse breeding nearby should also, therefore, be deleted, since the noise occasioned will not impact this property. The statement "will decrease quality of life during construction" should also be deleted as totally subjective. There is no definition or criterion presented to define "quality of life", therefore it is not possible to determine how or by how much such a feature might be affected. Similarly, the statements regarding quality of life for the Ironstone and 24

GIC8-24 For the purposes of this EIS, Quality of Life can be defined as addressing the rural residential nature of the area and the impacts that will be perceived as significant by the residents who live near the site. Concerning the traffic category, even though a level of service is rated "B," it does not mean that there will be no impact on the neighborhood.

W-113

Bryant College descriptions should be deleted. "Quality of life" is not a helpful standard of comparison.

As to the category entitled "Traffic", the Sherman Farm Road site review should state: "Construction traffic will be at a "B" level of service, thus minimal impact is expected." All statements regarding quality of life should be deleted under all sites here as above.

As to the category of "Visibility", the statements following the first sentence presented under each of the descriptions of each site should all be deleted. Very simply, no significant visibility impact should occur during construction at any site.

24 cont'd

The next major heading for the comparative analysis is titled "Plant Operations." Under the "Noise" category, the last sentence under the Sherman Farm Road description relating to negative impacts on quality of life should be deleted. On its face, the statement does not agree with the first sentence: "Noise impacts are not expected to be significant." Furthermore, the findings of fact of the Burrillville Board of Zoning should be given great weight in the determining that the Ocean State Powerplant will not negatively affect quality of life.

As to the Ironstone site, considerable discussion is found throughout the DEIS regarding the opinion that noise impacts will be insignificant there because of the current sand and gravel operations. The statement is also made that the sand and gravel operations should soon be discontinued. Whatever "advantage" the Ironstone site has because of the noise that currently exists at the site would soon no longer exist.

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GIC8-25 Comment accepted; please see the revised Table 2.1-26. Staff notes, however, that the nearest sensitive noise receptor to the Ironstone site is considerably farther away than at the proposed site.

Under the "Traffic" section as everywhere else, comments related to quality of life should be deleted.

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Under the category "Visibility", the statement that the pristine nature of night skys is expected to be somewhat impacted should be deleted. Testimony presented at the Burrillville Zoning Board notes that the nighttime lighting of the facility will be minimal and will be so directed so as to have minimal to no impact on night sky.

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GIC8-26 This comment is noted; however, Staff believes there will be some impact to the night sky, particularly from the cooling tower plume.

As to the "Property Values" category for all three sites, the statement should be made that values of neighboring property are not likely to decline.

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GIC8-27 Please see the response to comment GIC8-20. Staff does not believe it appropriate or possible to state that property values are not likely to decline.

Under the "Traffic" category, the statements regarding the quality of life should be deleted.

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A new principal section of comparative analysis should be added to the Table 2.1-21. This section should be titled Project's Scheduling, and the first category for comparison should be "Property Ownership." Under the Sherman Farm Road Site the statement should be made that the property is currently owned by an OSP investor owner. Ironstone should be described as privately owned with the same, private ownership delineated for the Bryant College site.

A second subcategory should be entitled "Permits and Approvals". Under Sherman Farm Road, it should be noted that the area is currently zoned for an electric generating facility and that a tax agreement is signed with the Town of Burrillville. It should also be stated that all applications for state and local licenses and approvals have been submitted and are now under review and many granted or issued. Under Ironstone, it should be noted that the local government acceptability of an electric generating facility or any industrial facilities on the aquifer is now being studied by the Town after having turned down an earlier request for rezoning to industry use and that the area is currently zoned agricultural.

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Another subcategory "Right of Way Acquisition" should be added. In this category, the Sherman Farm Road site should be listed as not requiring any new ROW. For the Uxbridge site, it should be noted that acquisition of a new transmission line right-of-way and switching station property would delay the project by at least two years. The same statement should be made under the Bryant College site.

29

An additional category of "Ancillary Facility Costs" should also be included. For Sherman Farm Road the cost of oil/water pipeline should be included; for Ironstone, the additional ancillary facility costs for cooling water pipeline, new right-of-way, expanded right-of-way, and gas transmission pipeline should be included; for the Bryant College site, the additional cost for ancillary facilities for cooling water pipeline, expanded right-of-way, and gas transmission pipeline should be included. Under the Ironstone and Bryant College discussions, the additional statement should be made that loss of investment tax credits would increase costs to rate payers by 30 million dollars if plant start-up were delayed by one year.

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W-115

GIC8-28 Staff notes this suggestion; however, these points are covered elsewhere in the document.

GIC8-29 It has been noted in the text that Ocean State Power does not have eminent domain authority; this reason should not be used by OSP as a substitute for good faith efforts to obtain easements by acquisition.

GIC8-30 Ancillary facility costs are presented in DEIS Table 2.1-18. Costs for Sherman Farm Road have since been added for comparative purposes; please see the revised Table 2.1-23. The issue of the investment tax credit and consequent ratepayers' costs have been addressed elsewhere in Section 2.

Alternative Facilities and Operations

This portion of the OSP comments reviews the alternative facilities and operations presented in the DEIS at pages 2-106 through 2-123. The areas reviewed are cooling water, alternative air pollution control equipment, and alternative oil and water pipeline routes.

Cooling Water

In the DEIS discussion on alternatives to cooling water, the Slatersville Aquifer and the Slatersville Reservoir are both reviewed. The hydraulic interconnectedness of the Slatersville Reservoir, the Aquifer and the Branch River means that all three must be considered as the same water source. Page 2-10 notes that plant water demand would require as much as 47% of the 7Q10 flow of the Branch River. The Rhode Island Department of Environmental Management has stated that any use of the Branch River which would impact it by 10% of the 7Q10 would be unacceptable. Therefore, it is highly unlikely that any use of the water resources of the Slatersville aquifer or reservoir would be permitted at any level of withdrawal approaching 0.9 million gallons per day. Furthermore, any reduction of flow from the Branch River amounts to a equivalent reduction in flow from the Blackstone River as noted on page 2-108.

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GIC8-31 FERC Staff concurs with these comments regarding the Slatersville Reservoir.

Dry Cooling

OSP continues to believe that the disadvantages of high initial cost, high operating costs, impact on plant efficiency and reliability, and the size of dry cooling systems as well as the potential for increased noise make a dry cooling system inappropriate for the Sherman Farm Road's site. Furthermore, the water requirements of between 0.75mgd and 1.0mgd needed even with dry cooling would require that a water pipeline be built to the Blackstone as no closer source of water exists that can readily provide the water requirements without any significant environmental impacts.

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GIC8-32 Staff generally agrees with these comments. Dry cooling would be more compatible with the Ironstone site.

The wet cooling system proposed for the Burrillville site has no significant environmental impacts on the immediate environment at the site nor does it have any significant impacts on the Blackstone River. The potential for icing and fogging has been demonstrated to be minimal, using the more sophisticated C.T. Main modeling. The water quality impacts have likewise been demonstrated to be minimal, and even this minimal impact on dissolved oxygen in the

Blackstone River will be mitigated by agreement between OSP and Rhode Island Department of Environmental Management.

32 cont'd

Alternative Air Pollution Control Equipment

In anticipation of comments relative to the issue of best available control technology (BACT) for control of nitrogen dioxide, OSP has included an OSP letter reviewing this issue. (OSP, March 11, 1988, letter to D. McVay, Rhode Island Department of Environmental Management). This letter presents the argument that the risk inherent in requiring a baseload powerplant to utilize a control technology which has no operational reliability record outweighs the insignificant net air quality benefits related to reducing OSP's air quality impacts to a level below six tenths of a percent of the ambient air quality standard.

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Alternative Oil and Water Pipeline Routes

OSP believes that there are significant technical difficulties, significant property acquisition difficulties and significant environmental impacts related to the alternative oil and water pipeline routes suggested on pages 2-122 through 2-125 of the DEIS to avoid impacts along Douglas Farm Road.

The attached letter from Tenneco Gas Transportation Company reviews the technical difficulties of co-locating gas lines with the OSP oil and water lines within a overhead transmission right-of-way. (Tenneco, April 19, 1988, letter R. Lyons to N. Collins, OSP.) Basically, it would be extremely difficult to assure cathodic protection of the pipelines if they were installed in the same trench due to the DC and AC currents in the area.

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Along the transmission line right-of-way, from Route 102 to the OSP site, there are approximately 30 abutting landowners. Co-location of the pipelines by either same or separate ditch construction would create an additional burden on these abutting landowners. Construction impacts would not be limited only to the additional construction equipment and activity necessary for adding the oil and water pipelines to the now proposed gas pipeline route, but could also require significant additional clearing of right-of-way for separate trenching.

Separate trenching may be necessary to avoid the cathodic protection system interference or as a result of pipeline

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GIC8-33 Staff notes this comment.

GIC8-34 These comments are noted. Nevertheless, Staff believes that there are alternative routes that are environmentally preferable to the proposed routes. Please see the revised Section 5.1.2 and the responses to comments GIC8-11, GIC8-15, GIC8-18, and GIC8-29. While additional costs would be incurred and wetlands would be affected, the FERC Staff believes that such construction can be done without causing significant, long-term adverse impacts. It is axiomatic that construction of a pipeline within a paved roadway will have minimal impact on wetlands. The impact on the day-to-day activities of people during the construction period would be much more evident. As one commentor has pointed out, Route 146A is the busiest road in North Smithfield. Any increase in traffic delays could have a significant effect on the movement of fire and rescue vehicles.

construction at different times. Separate trenching would require additional right-of-way acquisition from existing landowners and could be expected to require additional clearing. A minimum of 25 feet of additional clearing would be required if ditch construction area were available on the same side of the right-of-way as the gas pipeline now intends to follow. If it was determined that it was necessary to trench the oil/water pipeline on the opposite side of the right-of-way from the gas pipeline, then a greater amount of right of way would be required and currently uncleared area would need to be cleared. Acquisition of new right-of-way may also be necessary to assure that future right-of-way use by Blackstone Valley for future electrical transmission lines was not impaired.

34 cont'd

A significant impediment to OSP routing through private property is the lack of eminent domain authority. Existing easements owned by Blackstone Valley Electric Company are limited to easements for the overhead transmission line and can not be applied to a transmission of oil and water for the Ocean State Power project. Furthermore, Tenneco expects to be required to condemn and take by eminent domain a significant portion of the right-of-way necessary for its gas pipeline. OSP cannot be expected to be able rapidly and reasonably to negotiate with 30 landowners and obtain 100% approvals for the additional construction of an oil and water pipeline through private property.

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GIC8-35 Please see the response to comment GIC8-34.

The suggestion that the water and oil pipelines follow Tenneco's route is further complicated by the fact that timing of regulatory approvals and construction for the extension of the gas pipeline to Providence may be different from those for OSP.

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GIC8-36 Please see the response to comment GIC8-34.

A potential for significant adverse environmental impacts relative to the suggested alternate routing is also indicated. The transmission line right-of-way area from Route 102 to the plant crosses wetlands areas readily identified on USGS maps. There would be wetlands impacts at the unnamed stream that crosses Joslin Road as well as at Tucker Brook and at the wetland marsh area indicated at the crossing of Ironmine Road. In contrast, the Department of Environmental Management of Rhode Island has determined that the proposed pipeline route has no impacts on wetlands.

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GIC8-37 Please see the response to comment GIC8-34.

The same technical, property acquisition and environmental issues are presented with the suggested alternative of bringing in a separate oil pipeline from the north.

GIC8 (cont'd)

Furthermore, OSP believes there would be a considerable increase in cost associated with trenching and construction for a separate right of way for the oil pipeline. This cost would be greater than any saving of pipe material due to a shorter pipe route.

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In summary, the alternate pipeline routes suggested would move the impacts from the owners of houses abutting Douglas Pike to those property owners abutting the right-of-way. Yet impacts to Douglas Pike abutters are not onerous or long lasting. Access to and from houses for residents along Douglas Pike will not be significantly interfered with. Through traffic may be re-routed, but residential traffic would not be denied ingress or egress. Furthermore, the construction along Douglas Pike should occur at a construction rate of approximately 300 feet per day, with direct construction impacts affecting any single owner only for a very short duration.

GIC8-38 Please see the response to comment GIC8-34.

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IV. MITIGATIVE MEASURES

In the comments that follow, OSP addresses the FERC mitigation measures suggested on pages 5-4 through 5-8 of the DEIS.

Mitigation Measure 1.

OSP will continue its coordination with the Rhode Island Department of Environmental Management regarding the effects of the plant operation on water quality and quantity.

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Mitigation Measure 2.

OSP intends to continue to cooperate with the Rhode Island Department of Environmental Management regarding required environmental monitoring programs.

GIC8-39 Staff notes these comments.

Mitigation Measure 3.

OSP intends to conduct appropriate chemical analyses in accordance with EPA and state regulations to determine if the solid or semi-solid waste produced through the plant water treatment system should be considered a hazardous waste. The enclosed Bechtel letter demonstrates that a suitable disposal facility is available if these wastes are determined to be hazardous. (Bechtel, letter of April 13, 1988)

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GIC8-40 Staff notes these comments; please see the response to comment SA7-6.

Mitigation Measure 4.

OSP does not intend to establish a contingency plan to provide backup water supply. OSP believes there will be no restricted withdrawal of water from the Blackstone River. Use of groundwater or water from the Branch River would not seem to provide an appropriate backup or supplementary supply, as discussed elsewhere in our comments.

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GIC8-41 Since the applicant does not intend to establish a contingency plan to provide backup water supply, the proposed OSP power plant would need to shut down from time to time in the event that the RIDEM imposes restrictions on withdrawal of river water. The FERC Staff maintains that, if such restrictions are imposed, it would be prudent and in the public's best interests for OSP to have developed an emergency backup water supply to permit continued operations. The Slatersville aquifer appears to be the most suitable source.

Mitigation Measure 5.

OSP intends to install such noise suppression devices as necessary so that noise attributable to operation of the proposed facility does not exceed an Ldn of 55 dB(A) at the nearest residence. OSP intends to meet this guideline level at the plant site, the water intake and any pipeline booster station. OSP intends to undertake a post

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GIC8-42 Staff notes this comment.

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construction sound level survey if necessary to verify that these goals are achieved.

42 cont'd

Mitigation Measure 6.

OSP will generally be able to meet the spirit of this mitigating measure, however, OSP cannot agree to confine all construction and operating noise generating activities above an Leq of 55 dB(A) at the property line to weekday daylight hours. As presented in testimony to the Burrillville Zoning Board, OSP intends to limit construction activity to the hours of 7:00 a.m. to 5:00 p.m. except for those unusual circumstances where construction hours must be extended for activities such as a continuous concrete pour that might continue beyond the normal work day hours. In light of this testimony, Burrillville Zoning Board approval was granted without a specific limit on construction activity hours.

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FERC considerations in recommending mitigation measures concerning particularly local impacts should give considerable weight and deference to the Burrillville Zoning Board decision and findings of fact in areas of local environmental impact.

Mitigation Measure 7.

OSP believes it meets the spirit of this mitigation measure as construction activity for the OSP facility is intended to be limited to a Monday through Friday 7:00 a.m. to 5:00 p.m. schedule. However, OSP cannot agree to an absolute restriction to these hours as some activities may need to be performed during other times. As with Mitigation Measure 6, approval by the Zoning Board of Burrillville was granted without a specific limit on construction activity.

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Mitigation Measure 8.

OSP cannot reasonably be expected to schedule blasting and steam blows during construction so as to avoid the breeding season for horses. As stated elsewhere in these comments, the "blasting" in fact should not be noticeable. OSP does intend to notify the horse farm operator prior to conducting steam blow activities and at the beginning of the construction excavation period when general blasting is expected.

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Mitigation Measure 9.

GIC8-43 Staff notes this comment.

GIC8-44 The recommendation has been modified to recognize that certain activities, such as continuous concrete pours, may extend beyond 5 p.m.

GIC8-45 Comment noted; Staff has revised the condition to say that such scheduling shall be done "as reasonably possible." However, Staff believes that OSP's commitment to notify the horse farm owner is too general, and so has also modified the condition to require notification prior to conducting "each occurrence of" such activities.

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OSP intends to notify abutting land owners and residents prior to the beginning of blasting activities on site. However, as blasting activities are not expected to create any significant noise offsite, the notice to abutting land owners and residents will be limited to a general notice at the beginning of the on-site construction excavation period.

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Mitigation Measure 10.

OSP is required under Rhode Island law to implement the sediment and erosion control plans included in its Rhode Island Wetlands Alteration Permit Application. OSP intends fully to comply with this requirement.

GIC8-46 Staff notes these comments.

Mitigation Measure 11.

OSP has presented its site clearing and grading plan to the Burrillville Zoning Board during hearings on the zoning application for the OSP plant. The Burrillville Zoning Board found that sufficient existing vegetation existed with the presented clearing and grading plan to create a visual barrier.

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Mitigation Measure 12.

OSP presented to the Burrillville Zoning Board its site clearing and grading plan maximizing existing vegetation on site as a visual barrier to the plant. No requirements for screen plantings were made by the Burrillville Zoning Board in its review of the planned construction of the OSP facility. OSP will retain the maximum undistributed vegetative buffer practical consistent with OSP's proposed plot plan, construction lay down requirements and existing structures. In some directions this will considerably exceed 100 feet. No additional screen plantings were required by the Burrillville Zoning Board to replace any vegetation during construction.

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GIC8-47 Staff acknowledges that OSP cannot provide screen plantings along the utility rights-of-way that cross the site, nor in areas outside its proposed plant property.

Mitigation Measure 13.

OSP will fully comply with State of Rhode Island requirements for soil and erosion control at wetland crossings.

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GIC8-48 Staff notes these comments.

Mitigation Measure 14.

Evidence regarding construction equipment traffic was presented to the Burrillville Zoning Board in testimony in hearings on the OSP zoning approval. Testimony was

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presented that the primary route for construction traffic will be the Sherman Farm Road. The Zoning Board chose not to restrict construction equipment traffic to Sherman Farm Road.

48 cont'd

Mitigation Measures 15.

OSP strongly opposes any Federal government suggestion of a "buy out" plan to compensate local residents as both unnecessary in fact and inappropriate as a federally recommended mitigation.

OSP has undertaken to test the thesis, both in fact and in theory, that a powerplant of the nature it intends to construct will diminish the value of neighboring residential properties. We attach the April 20, 1988, result of this investigation by William E. Coyle, Jr. and Associates, licensed Rhode Island and Massachusetts real estate consultants. In reviewing any apparent changes in the local real estate market in immediate proximity to the proposed powerplant for the years 1986 to date, Coyle and Associates reports no noticeable affect.

"Further, we have reviewed data in our files concerning powerplant sites in nearby Massachusetts. Our data shows that in the immediate areas surrounding these sites, there was little or no effect on the market value of the surrounding properties."

49

OSP sees as unnecessary the establishment of a "buy-out" mechanism absent a showing of property value diminution; no such showing has been made here.

OSP also believes establishment of such a formal mechanism is inappropriate as a matter of policy, because it has the potential to set a precedent whose ramifications would carry widely into other situations, where utility or public facilities such as highways, airports, low income housing, schools, fire stations, water treatment facilities, pipelines, etc., were to be sited.

We have attached a legal study of the matter done for OSP by the Providence Rhode Island law firm of Tillinghast, Collins and Graham. (See also, the attached opinion letter by the Deputy General Counsel of the Counsel on Environmental Quality).

In summary, the Tillinghast, Collins & Graham study makes the following points:

GIC8-49 Please see the response to comment GIC3-2.

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1. While both Rhode Island and federal courts, interpreting respective constitutions, have found that otherwise permissible land uses can go too far and rise to the level of a taking of property, the standard is whether the action has deprived the property owner in question of all or substantially all of the beneficial use or value of his property. Diminution in value or even prevention of the most valuable use of property is not sufficient to prove a claim of inverse condemnation. This is especially so in the case of a "constructive," as here, opposed to a "direct," taking.

2. This standard, applied to the facts of OSP's case, would make it virtually impossible for adjoining land owners to argue, once the OSP plant is built and operating, that the governmental actions opening the way for the facility's construction at this site constituted a taking of their property requiring compensation.

Given the state of the current law, OSP therefore vigorously opposes attachment by FERC to its approval of the project of any formal condition going beyond requirements of current law. We think such an action especially inappropriate because of the precedent it would create for other public projects. As observed by the U.S. Supreme Court Justice Holmes nearly 70 years ago in Pennsylvania Coal Co. vs. Mahon (cited in attachment), government "hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law." The same applies to the public benefits generated by OSP. To require a formal "pay-back" or "buy out" mechanism for alleged diminution in property values around this or any other plant, pipeline, elementary school, fire station, or highway or airport for that matter, would be to open Pandora's Box to a never ending stream of alleged "taking" litigation by speculative neighbors.

49 cont'd

Lest it be thought that OSP is being unduly harsh towards its immediate neighbors, we point out that, as recently announced (see attached press release) and discussed at the public hearing on this DEIS, OSP has voluntarily agreed to provide a total of $300,000 for local Foundations, the trustees of which will include local residents and officials, to address diminished property value concerns by those owning homes around the plant. To go beyond the voluntary approach to a more formal "mechanism" required by the federal government as a condition of operation, as the DEIS suggests, is to invite speculative claims delaying and even preventing publicly

beneficial projects like OSP, a result negating over a hundred years of careful judicial balancing of exactly these competing policy considerations. 49 cont'd

Mitigation Measure 16.

OSP intends to undertake no construction related activities that would effect the family cemetery at the Grove Hollow site and intends to protect it by a fence separating it from plant facilities by a distance of approximately ten meters beyond any existing gravestones. 50

Mitigation Measure 17.

OSP does not believe that the construction of water and oil pipelines will affect cultural resources. The pipeline is to be constructed only on already disturbed areas within existing roadways. Nevertheless, OSP will undertake any Phase 1 survey required by the Historical Preservation Commission of Rhode Island if such is deemed necessary by that agency. 51

Mitigation Measure 18 and 19.

OSP does not intend to modify the current route of the oil and water pipeline from its intended route along the Douglas Pike. Technical issues as well as property acquisition environmental and cost issues have been raised which OSP believes demonstrate that the preferred Douglas Pike route remains the most acceptable route. 52

Mitigation Measure 20.

OSP intends to coordinate with property owners to provide visual screening of the facility to the extent practical and necessary, consistent with existing and planned uses of properties owned or held in easement by third parties. OSP intends to provide a considerable visual buffer as described in Mitigation Measure 12. OSP, however, cannot ensure that third parties abutting or ner the plant will protect existing vegetative buffers. 53

GIC8-50 Staff notes this comment; please see the response to comment SA8-1.

GIC8-51 The Rhode Island HPC has indicated to the FERC Staff that it will conduct field visits at the locations of the proposed pipelines to assess the need for, and level of detail required in, any cultural resource surveys necessary. In accordance with Section 106 of the National Historic Preservation Act and 36 CFR 800, it is the FERC's responsibility to determine the effects of the undertaking on cultural resources that are on, or eligible for listing on, the National Register of Historic Places (NRHP). The Staff would review the RIHPC's recommendations and the results of any cultural resource surveys performed. If any of the proposed oil or water pipelines would cross through sites or historic districts that are on or eligible for the NRHP, the Staff will seek the comments of the RIHPC and the Advisory Council on Historic Preservation.

GIC8-52 Please see the response to comment GIC8-34.

GIC8-53 Comment noted; the wording of Mitigation Measure 17 (Section 5.1.3.2) has been revised in recognition that OSP has limited control over the actions of third parties. Please see also the response to GIC8-53.

V. RESPONSE TO PUBLIC COMMENTS MADE REGARDING DEIS

This section reviews existing comments on the draft Environmental Impact Statement. The comments addressed in this section include public comments made regarding (1) the potential for PCB's in the gas fuel line, (2) the suggested alternative of routing the water and oil pipeline along the Providence and Worcester railroad line, (3) comments made by the Fish and Wildlife Service of the U.S. Department of the Interior, (4) concerns regarding the gas supply for the full-sized 500MW operation of the OSP facility and (5) comments regarding spill prevention and control.

PCB Comments

In response to concerns raised in public comments regarding the potential for PCBs in the gas stream, Tennessee Gas Pipeline has submitted a informational letter to OSP. (Tennessee Gas Pipeline, letter April 19, 1988.) This letter reviews how Tennessee at the request of the Environmental Protection Agency in 1981 checked its entire pipeline system for PCBs. Engine crank cases, pipeline drips, meter stations and used oil tanks were checked. Not one single engine or gas compressor was found to contained PCBs. Tennessee was also able to obtain testimonial letters from the engine and oil manufacturers that the oil Tennessee used never contain PCBs. Monitoring at pipeline drip meters did find PCBs. Because Tennessee never used PCB oils in its natural gas compressors, it can only be assumed that the source was interconnects in the northeast with other companies that did use PCB oil. Tennessee has continued to remove, analyze and properly dispose of pipeline liquids from the drip stations and filters on its system in a timely fashion. Tennessee Gas Pipelines states that where PCBs have been found in the Northeast, the PCB concentration in their pipeline liquids has steadily declined and most of the sample points have either dried up or are now well below the 50 part per million level.

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GIC8-54 Staff notes this comment; please see the revised Section 2.2.3.3.

Railroad Right of Way Comments

Comments have been made by the Town of North Smithfield requesting that Ocean State Power consider the use of the Worcester and Providence Railroad Right-of-Way as an oil and water pipeline route. OSP agrees that the ability to route the water and oil pipeline along an existing railroad right of way would avoid traffic impacts on public roadways. OSP is actively pursuing the engineering

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GIC8-55 Comment noted; FERC Staff conducted an analysis of the Providence and Worcester Railroad right-of-way as an alternative water pipeline route. The concerns expressed in this comment were considered in Staff's analysis.

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feasibility of routing the pipeline along the existing right of way. OSP notes that while engineering difficulties may or may not appear in the efforts to route the pipe along the Providence Worcester Railroad line, the acquisition of property presents the same difficulties as were identified in earlier discussions on the acquisition of property at power transmission line rights of way. Ocean State Power does not have eminent domain powers and cannot condemn and take properties. OSP must negotiate and be granted an easement for the oil and water pipeline along the existing Providence Worcester Railroad bed and beyond the railroad bed to where a hookup to Route 102 could be made. Of particular concern is the land at the end of the actively used railroad bed where there is a portion of abandoned right of way for which ownership is unknown. The ability to obtain approvals for easements for the water and oil pipeline with all property owners in a timely fashion is uncertain. 55 cont'd

Because of the above concerns, while OSP will maintain a good faith effort to attempt to route the pipeline to the degree possible along the existing Providence and Worcester Railroad line, OSP cannot accept a mitigation measure or license approval from any government agency that would require that OSP utilize the railroad line right of way. OSP does not believe that the impacts of construction in public roadways are so onerous as to be totally unacceptable. The pipeline routing will be reviewed by the Rhode Island Energy Facilities Siting Board. Furthermore, to specifically require the project to utilize the railroad right of way would give the right of way owners an untenable bargaining position against OSP. OSP must maintain its current ability to utilize the existing public roads and highways.

Fish and Wildlife Service Comments

Need for Power. In comments submitted April 15th, Mr. Gordon Beckett of the Fish and Wildlife Service commented on his impression that the draft environmental statement did not adequately deal with the inconsistencies in New England power need forecasts, particularly New England Energy Policy Council's forecasts. We disagree, 56 believing that pages 2-25 and 26 of the DEIS does undertake the necessary resolution. As is pointed in pages 2-18 and 19, the Energy Policy Council had as its goal to try to point out how much energy could be saved by energy conservation under the best circumstances, an originating principle somewhat unrealistic. Further, we point out that the Rhode Island Energy Board, which has

GIC8-56 Staff generally agrees with these responses to the Fish and Wildlife Service comments.

expertise in this matter, held a public hearing and received evidence on this very subject last Autumn and has decided that more electricity generation capacity is needed for Rhode Island as soon as is possible. The other studies referenced by the Fish and Wildlife Service and discussed in the DEIS do include and encourage energy conservation and various load management techniques, however, they simply do not believe that these measures would be sufficient. In short, we believe that the need for power is adequately demonstrated, as well as adequately analyzed and discussed in the DEIS.

Alternative Means of Power Generation. The Fish and Wildlife Service comments go on to suggest that the "no action alternative," based on the presumption that there is no need for additional power, has been inadequately discussed. Fish and Wildlife states that the no action alternative as presented is unfairly skewed because it assumes a prior finding for the need for more power. Therefore, it is easy to say that the no action alternative is improper.

What we have stated above applies here as well. We think that the fundamental precept behind the need for Ocean State Power is demonstrated by virtually every study that has recently been made, and by the record electrical peaks experienced in the immediate past winter. Therefore, it is entirely appropriate that the discussion at 2-27 of the "no action alternative" is reasonably brief. 56 cont'd

Energy Conservation. The Fish and Wildlife Service complains that the issue of energy conservation is allegedly discussed only very briefly on page 2-49, and that is an inadequate analysis of the subject which is an alternative to more power generation.

The simple answer is that throughout the preceding pages, of the DEIS the question of whether energy conservation, load management, and other comparable measures would be adequate to cover New England's power needs has been both implicitly and explicitly part of the discussion. All of the energy studies referenced in these pages acknowledge the importance of energy conservation, examine it, and have determined that its use would not be sufficient to deal all immediate future power needs. It is not necessary for this impact statement to duplicate all of those studies, but simply to reference them and discuss and compare their analysis, which is done. Further, the Rhode Island Public Utility Commission's hearings on the issue of need discussed above also covered the question of

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energy conservation, and came to the same conclusion as did virtually all of the refeenced studies, i.e., that it was an important component of an energy plan, but not sufficient itself to deal with future needs.

Alternative Measures of Generation. The Fish and Wildlife Service comments (page 2) state that the DEIS does not adequately discuss other modes of power generation. Attached to the letter is a list of power purchase agreements for wood fuels, as well as a list of power projects making use of oil, hydro power, coal, and the like. (Why nuclear power was omitted was unclear).

The DEIS does recognize these alternate forms of power generation. All have their environmental pros and cons. However, OSP believes that gas is likely to have less environmental affect than coal, oil, and nuclear as well as in some instances hydro power. Wood burning of course, although available in the State of Maine because the extensive forest and timber industry there, raises other environmental impacts issues. The DEIS finds none of the reviewed alternatives clearly environmentally superior to OSP. This review of electrical power generation has been adequately done by the above referenced studies including review of the most efficient means of power generation. The Rhode Island need hearings also addressed the issue of efficiency, and came to the conclusion that OSP's proposal was worthy of support. Since this specialized body specifically dealt with the subject, and is the appropriate place for such a discussion, the DEIS needs simply to note that fact. The EIS process cannot be expected to recreate all learning.

56 cont'd

Dry Cooling. The Fish and Wildlife Service comments made a point that site suitability is allegedly artificially restricted because of the refusal to move to a dry cooling tower system. According to the Fish and Wildlife Service's analysis, use of a dry cooling system would greatly enlarge the potential pool of sites. However, this is not true. Sites were examined all over southern New England, and included the piping of water from distances far from the potential sites. Further, even a dry cooling system requires some water. Sites examined did include the possibility of the pumping of the underground aquifers. Most importantly, however, the impact statement does discuss, and OSP has extensively studied, the issue of dry versus wet cooling.

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Adverse Cumulative Effect on Wetlands of Pipelines Looping. Fish and Wildlife Service comments that

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GIC8-57 Staff generally agrees with this comment.

GIC8-58 Please see the responses to comments FA3-12 and FA3-10.

allegedly the individual and cumulative effects of looping on wetlands is unacceptable and that the Tennessee Gas Pipeline Company should instead add compression on its New York and Massachusetts main lines rather than loop in upper New York State.

While this matter is properly answered from a technical point of view by Tennessee Gas, we would state that in OSP's opinion, neither the individual or accumulative effects of this looping on wetlands are great. As is pointed out in the impact statement, wetlands recover very fast from pipelines being placed in them and the protective measures to be taken as outlined in the DEIS would appear adequate where wetlands do have to be transgressed by the pipelines.

58 cont'd

Pipeline Rights-of-Way Fragmentation. Fish and Wildlife states that the right-of-way should follow more closely existing rights-of-way rather than fragmenting forests in new routes with adverse wildlife effect on forest interior dwelling species of birds and animals.

OSP responds is that to a very great extent the pipelines do follow exiting rights-of-way, including highways. Regrowth can take place over virtually all of the right-of-ways to some extent, including woody plants. Furthermore, the number of sensitive "interior dwelling" species is limited and the impacts are far from certain.

Cumulative Effects of Pipelines and Other Right-of-Way. The Fish and Wildlife Service suggests that the DEIS is deficient because it hasn't analyzed the entire cumulative impact of every sort of right-of-way for public utilities in New England.

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The simple response is this well beyond what is required in this project's EIS. The cumulative impact of the particular rights-of-way involved in the OSP project are adequately assessed. In fact, one advantage of the Sherman Farm Road site, is that it does not need as many new rights-of-way as other sites, especially for transmission lines which are already present there.

Proposed Plant Site - Construction Damage on Adjacent Property. The Fish and Wildlife Service suggest that the DEIS is deficient because it doesn't deal with the allegedly adverse effect on wildlife of construction at the site of the plant other than "the foot print of the facility" itself.

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GIC8-59 Please see the response to comment FA3-12.

GIC8-60 Please see the responses to comments FA3-22 and FA3-23.

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The response is that it certainly is true that where the plant is actually being constructed habitat will be destroyed, but the effect of this construction on nearby areas is short and certainly long term impacts diminish as one moves away from the actual construction site.

Time of Year Restrictions. The Fish and Wildlife Service suggest that because of the breeding habits of birds and animals, every effort should be made to avoid habitat destruction activity during the spring. 60 cont'd

OSP's response is that the relative impact is too small to warrant modifying construction schedules. The suggestion of such a limitation does not reflect the balancing of interests that a lead agency must undertake and present in the EIS process.

Top Soil Conservation. The Fish and Wildlife Service urges that FERC make a precondition that everywhere there is excavation, topsoil conservation should take place, including in wetlands. OSP's response is that it is generally in agreement with this observation, subject to Tennessee's Gas Company's comments on wetlands' topsoil, and both the difficulty and lack of need for separation under some circumstances. 61

GIC8-61 Please see the responses to comments FA3-24, SA4-8, and SA4-10.

Segmentation Issue. The Fish and Wildlife Service suggest that the impact statement doesn't adequately deal with gas supply for Unit 2 of OSP, thereby creating a "segmentation issue".

The succinct response is that the same infrastructure would be used for gas for Unit 2 as for Unit 1, and all piping in new right of way has been sized accordingly. Any additional facilities required for transporting Unit 2 volumes would be limited looping or compression most probably built at existing sites and rights of way with no significant environmental impact. Therefore, this impact statement fully covers significant environmental impacts from both Units 1 and 2. 62

Providence Project. The Fish and Wildlife Service suggest that the Providence project of Tennessee Gas should be covered in this same impact statement. However, the bringing of gas to Providence is a separate matter from OSP, and there is no need to cover it in this impact statement.

GIC8-62 Please see the responses to comments FA2-2 and FA3-25.

Wildlife Management Areas. The statement is made by the Fish and Wildlife Service that the siting of a gas fired 63

GIC8-63 Please see the response to comment FA3-6.

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power plant "close' to wildlife management areas, parks and similar public facilities should be considered fatal flaws and that, therefore, the Buck Hill Road and Sherman Farm Road sites should be eliminated from further consideration." Ocean State Power does not agree.

While there are no Federal level criteria for excluding either the Buck Hill Road site or the Sherman Farm Road site as potential environmentally sensitive areas, at the State government level there exists sound reasons for excluding the Buck Hill Road site from consideration. Materials are enclosed from the Natural Heritage Program of the Rhode Island Department of Environmental Management. In that letter the Rhode Island Department of Environmental Management makes the following statements regarding the Buck Hill area:

> (It) is not only botanically significant, but....highly utilized for recreational purposes including camping (George Washington and Buck Hill Scout Reservation), hunting, fishing,and hiking among others. I would recommend that this Site No. 1 (i.e., Buck Hill), not be considered for this power plant project, not only because of a close proximity to Dry Arm Brook, but also because potential impact of significant wildlife and plant species as well as the recreation in this area. On the basis of what I know of these sites I have listed, this seems by far the most inappropriate location for a power plant.

63 cont'd

As regards the other sites including the Sherman Farm Road site, the Department of Environmental Management stated "no state endangered species of plants or animals are known to occur on or in the vicinity of these areas."

<u>Wetland Habitats.</u> The FWS also comments that the consumptive water withdrawal by OSP would reduce the physical habitat in ripple and other shallow water areas and that no effort is made to quantify that loss or identify the functions and uses that would be lost. The potential for habitat loss has been assessed by Ecology and Environment, Inc. and it has been determined that minor reductions in water depth and river width are not expected to have any substantial affect on the availability of aquatic habitats or to affect wetland vegetation. (Ecology and Environment December 9, 1987 letter from C. Ferris to N. Collins, OSP).

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GIC8-64 Comment accepted; please see the revised Section 4.1.5.2.

Water Flow. The FWS comments that the FERC should have acknowledged a river flow maintenance problem on the river and its relative importance. The FWS comments that the 7Q10 flows occur with much greater frequency than under natural conditions. This issue has been also addressed by Ecology and Environment. Ecology and Environment finds that the addition of the upper Blackstone Water Pollution Abatement District Waste Water Treatment Plant in Worcester, Massachusetts in 1976 represents a substantial supplement to the river's normal low flow, because the waste water is drawn primarily from reservoirs and water supplies outside the Blackstone River drainage basin. For example, the 7Q10 flow calculated over the period of 1976 to 1984 is slightly over 111 cfs or 9% higher than the 56 year 7Q10 flow rate of 102 cfs. In addition, from August 1976 to September 1976 river flows below the 56 year 7Q10 of 102 cfs have been recorded on only six days, which is approximately 0.16% of the ten year period. This significantly and strongly contradicts the FWS perception of a river flow problem.

The lowest flow recorded since 1976 was 35 CFS and examination of the daily flow data indicate that nearly all extreme low flows were isolated one day occurrences. Ocean State Power intends to cooperate with existing industrial and public users of the Blackstone River to review the issue of occasional inadvertent ponding. OSP believes that this effort will ultimately lead to enhancement of run of river natural flow conditions.

Water Quality. FWS also comments that the water quality impacts related to the OSP withdrawal of water from the Blackstone River will adversely affect resident aquatic life and hinder or prevent fishery agencies from proceeding with anadromous fish restoration. However, in preparing this statement the FWS had not reviewed the most current water quality modelling studies undertaken and sent to them by copy of the April 6 letter submitting the same studies to the FERC. (Telephone conversation with V. Lang, FWS principal author of the comments by N. Collins April 19, 1988.) These more recent studies should suffice to respond to FWS comments in this regard.

The FWS comments that the offer of mitigation of any potential reductions in dissolved oxygen levels would be not allowed by the Clean Water Act and would violate the anti-degradation policy contained in the EPA and Rhode Island water quality standards. The modeling studies demonstrate that any dissolved oxygen depletion in the Blackstone River is indeed insignificant. Dissolved

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GIC8-65 Please see the responses to comments FA3-13, FA3-14, FA3-15, FA3-16, and FA3-17.

oxygen levels remain above EPA guidelines for protection of aquatic resources. Nevertheless, although it would not be required under federal standards and guidelines, OSP has agreed with the State Department of Environmental Management to provide such mitigation as is necessary to assure that not even minimal depletion of dissolved oxygen occurs in the Blackstone River. Thus, there is also no need for OSP to be required to maintain the FWS suggested instantaneous minimum flow of 208 cfs in the Blackstone River.

65 cont'd

Cooling Tower Effects. FWS makes the comment that the difference of two orders of magnitude found in two different air quality modelling studies undertaken for the OSP cooling towers suggests "that a major error exists in one or both of these analyses." This is not the case. It is not at all unusual for a screening modeling approach such as initially undertaken by Bechtel in 1986 to assess potential impacts of cooling tower effects, when compared to much more sophisticated modeling such as undertaken by C.T. Main in 1988, would result in predicted differences of two orders of magnitude.

GIC8-66 Please see the responses to comments FAJ-18, FAJ-19, and FAJ-20.

The FWS also suggests that "another potential discrepancy may exist with cooling tower plume deposition patterns" in the figures for cooling tower plume and salt depositions. The FWS does not understand why maximum plume water deposition is predicted near the plant while salt deposition would be predicted 2.6 kilometers further away from the plant. In actuality the plume water deposition occurs closer into the plant because of its larger particle size and the weight simply causes it to fall out closer into the plant. On the other hand, salt deposition is the result of the water particles evaporating and the much smaller salts being carried farther down wind. The fact that significant conservatism has been utilized in the data presented in the C.T. Main modeling should be noted. For example, the C.T.Main modeling presumes that there will be twenty cycles of concentration in the cooling tower whereas the plant is currently designed for only seven cycles of concentration, thus a threefold conservatism exists in this regard.

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Contaminant Pathways. FWS comments that contaminant pathways related to concentration of surface waters and wetland areas need to be carefully evaluated in subsequent revision of the EIS. OSP believes,given the above discussion on the extreme conservatism incorporated in the modeling undertaken and the sophistication of modeling undertaken, that there is no significant potential for

GIC8-67 Please see the response to comment FAJ-21.

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concentration of contaminants in surface waters and wetlands. Furthermore, any salt tends not to readily leach from soils and those that do would be diluted by rain water. Finally, the maximum impacts predicted in the modeling do not reflect an area-wide impact. An area-wide impact would be significantly below the maximum impacts.

67 cont'd

Gas Supply for Unit 2

The DEIS states at page 1-3, that "(it) should be noted that Tennessee's current proposal in Docket No. CP87-132-001 is for transportation of 50 million cubic feet per day (MMcfd) to fuel OSP Unit 1 (250 MW). While this impact analysis of the OSP plant covers both Units 1 and 2, (500 MW) the FERC Staff assumes that an additional 50 MMcfd would be needed to fuel Unit 2 once it is constructed." OSP confirms that the fuel for Unit 2 will be another 50 MMcfd of gas and that OSP has an option to purchase that fuel from the same supplier of Unit 1. Transportation of the fuel will be through the existing Tennessee Pipeline system.

68

All impacts described in the DEIS and state and local permits sought are for a two unit 500 MW generating plant with natural gas as the primary fuel. The Rhode Island extension of Tennessee Pipeline system will be sized for 130 MMcdf, including 100 MMcfd for OSP and 30 MMcfd for Providence. To the extent any new facilities are required to transport gas for Unit 2, they are expected to be limited to additional looping and compression at existing sites and right of way with insignificant environmental impacts.

Spill Prevention and Control

Concerns over potential oil and chemical spills are addressed in the enclosed "Spill Prevention Control and Countermeasure Plan" for the OSP plant.

GIC8-68 Staff notes these comments.

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LIST OF ATTACHMENTS
FOR OCEAN STATE POWER COMMENTS
RE: DOCKET NO. CP87-131-001 AND CP87-132-001

1. Ocean State Power Comments, Public Hearing Statement on the Federal Energy Regulatory Commission, April 14, 1988.

2. Ecology and Environment, April 20, 1988 memorandum on potential effects on future Blackstone River uses to N. Collins, OSP from C. Ferris.

3. BBN Laboratories, Inc. "Ocean State Power Project Environmental Noise Impact," November 1987.

4. Ecology and Environment, Letter of December 9, 1987, regarding OSP withdrawal impacts on wetlands and aquatic habitats, C. Ferris to N.Collins, OSP.

5. R.I. Department of Environmental Management, March 29, 1988, Letter regarding water quality impacts on the Blackstone River from E. Szymanski to N. Collins, OSP.

6. Bechtel Power Corporation, "Blackstone River Dissolved Oxygen Replenishment Alternatives for the Proposed Ocean State Power Generating Facility," April 1988.

7. William E. Coyle, Jr. and Associates, April 20, 1988 letter on property values from W.E. Coyle, Jr., to C. Loewen, OSP.

8. Konheim & Ketchum, "Effect of Rsource Recovery Plants on Nearby Property Values," by C. Konheim and S. Koehler, June, 1986.

9. Callaway & Price, Inc., "The Impact of Resource Recovery Facilities on Surrounding Residential Properties," prepared by J.R. Price for the Palm Beach County Solid Waste Authority, March 10, 1986.

10. Ocean State Power, Press Release "Ocean State Power to Provide Funds to Town of Burrillville," April 13, 1988.

11. Ocean State Power, March 11, 1988 letter regarding BACT from N. Collins to D. McVay, RIDEM.

12. Tenneco Gas Transportation, April 19, 1988 letter regarding Co-location of Water, Oil and Gas Pipelines, from R.E. Lyons to N. Collins, OSP.

13. Executive Office of the President of the United States, Council on Environmental Quality, letter of December 10, 1987 reviewing EIS adequacy and authority of FERC to condition construction of the OSP plant, from L.L. Schwartz, Deputy General Counsel to L. Aitken, CCUB.

14. Tillinghast, Collins & Graham, April 11, 1988 legal memorandum on Zoning Action as a Taking or Inverse Condemnation.

15. Rhode Island DEM, National Heritage Program, letter of July 22, 1987 regarding OSP Siting Alternatives and Endangered Species Impacts from C. Rathel to P. Marajh, ERT.

16. Ocean State Power, letter of April 7, 1988 regarding Routing Along RR Right of Way from N. Collins to J. Connery, North Smithfield Town Council.

17. Tenneco Gas Pipeline, letter of April 19,1988 regarding PCBs from T. Matthews to N. Collins, OSP.

18. Bechtel, letter of April 13, 1988 regarding Waste Material Expected from OSP Operations, from R. K. Vassar to C. Riva, OSP.

19. Bechtel Eastern Power Corporation, "Spill Prevention Control and Countermeasure Plan" for OSP Plant, April 1988.

REF: TXTSTEPH MDOS0003

April 22, 1988

Mr. Lonnie Lister, Project Manager
Environmental Analysis Branch
Office of Pipeline and Producer Regulation
Room 7312
825 North Capitol Street, N.E.
Washington, DC 20426

RECEIVED BY
APR 25 1988

REF: Docket No. CP87-132-001

GIC9

Dear FERC Staff:

Thank you for this opportunity to respond to the DEIS. I have presented issues of concern to you at the Public Hearing in Woonsocket, RI. I would like further to submit followup and additional concerns about the report. I cannot emphasize stongly enough that all issues must be in detailed order before any action is taken on a FEIS. Your mitigative measures must be substantiative so that enforcement is assured. Statements like "should", "should be" or "will" etc. carry no authority. You must review the wording of all the mitigative measures and put some "teeth" into this meaning and expected results.

1) Routing of "Tennessee Gas Pipeline" across SARAVARA Property.

In my original "Scoping Comments" to you I requested the opportunity to present course changes across my property to reduce the impact of the project on my future land plans.

Since that request I have met with Tennessee to discuss alternate routes. They have verbally indicated to me their ability to accommodate my proposal. However nothing presented to FERC or myself to date represents our discussed solution. 1

Variations of their original course have been drawn up but they do not reflect our field meetings - Mark Dunn, the ROW agent for Tennessee, explained to me on the phone that an error was made and he would get back to me in March - I am still waiting for his return.

My request was never addressed in the DEIS under "Alternatives Considered". (See 2.2.4 pgs. 2-162 through 2-189)

I have displayed and provided cooperation with Tennessee. I met with them on three occasions at the site and have spoken with them numerous times on the phone.

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GIC9-1 FERC Staff has conducted a review of alternative gas pipeline routes in the immediate vicinity of the Sherman Farm Road site, including verbal and written comments by Mr. Saravara and written responses by Tennessee to Staff's Data Requests. The results of this review were used to prepare the revised Section 2.2.5.3 and Figure 2.1-6.

I expect my requests be addressed in the EIS as per our field meeting. A definitive plan should be provided to all parties involved. See Exhibit 1

2) The Straw that Breaks the Camels Back.

In my original "Scoping Comments", I requested an alternate approach to the OSP be provided through the use of existing utility corridors by intercepting these corridors a mile or so from the OSP site. 1 cont'd

My property already has numerous corridors crossing it perpendicular to Douglas Pike. Any Tennessee proposal would substantially ruin any profitable reward through future development.

I am in a very unusual position. Not only will the OSP plant change the quality of life and substantially reduce property values, but the Tennessee Gas Pipeline just takes it all.

The economic impact of Tennessee on my life's investments cannot go unnoticed. Since no other course was selected, outside the "Wagon Wheel" effect its economic impact on my land must be studied.

As the DEIS indicates on page 3-58 "Visual and Aesthetic Factors": The pristine character of the area is broken by several transmission line, gas pipeline and AT&T cable rights-of-way.

If FERC selects to continually chop up the area, I would expect compensation from big business before the "Tree Cutting Ceremony" begins.

3) Alternate Route of Tennessee on the Existing Boston Edison Corridor.

I requested in my letter to FERC no new clearings be cut across Douglas Pike at the OSP Plant area.

The report conclusion on page 4-96 states:

"Mr. Saravara believes that no new corridors should be cut across Douglas Pike. The FERC Staff has considered recommending that the Tennessee pipeline into the OSP plant parallel the Algonquin pipeline, but now believes that this would increase the visibility of the plant. The FERC Staff recommends, however, that Tennessee install visual barriers at the proposed crossing of Douglas Pike to help maintain the wooded character of the area which would be most heavily impacted by the proposed power plant."

Note that in the report it was interpreted that I requested

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the Tennessee Gas Pipeline run parallel to the Algonquin. That was not my reasoning. If the pipeline can cross the Boston Edison, it can travel under the Boston Edison.

There are just two pole structures between the OSP plant and where they would intersect Boston Edison from the King's property. These structures are 80-100 feet high. This provides substantial clearance for any construction activity under the lines.
The advantages are:

a. The route would be more direct.
b. Reduce clearing of forest by about 2,000 feet.
c. Less costly to the King property through the loss of valuable roadside.
d. Better land planning
e. Makes sense

See Exhibit 2

4) OSP Mitigative Measure # 20 and TGC Mitigative Measure # 16

As the DEIS indicates on page 3-58:

"The pristine character of the area is being broken by several transmission lines."

I commend the FERC Staff for addressing the visual barrier issue.

In several places the DEIS mentions the visual impact of the OSP plant and TGP on the neighboring properties around the proposed project site.

This opportunity to reduce or even eliminate the view of the plant and pipeline from passersby and neighbors is a great achievement.

But the measures need more definition. A study must be done that provides site distance information and the types of vegetation. Screening shall be established beforehand, along with a maintenance program.

To extend this condition to both sides of Douglas Pike is in the best interests of all parties.

5) Former Leon Benkosky Property

My original "Scoping Comments" to FERC indicated the intention of Boston Edison to clear the former Leon Benkosky property. Again on December 2, 1987 I forwarded the FERC Staff a detailed map of their devious intentions.

Your department was not my only contact. I have gone to great efforts by earnestly requesting several parties not to remove the natural vegetation barrier on the OSP plant side

W-139

2

3

GIC9-2 Staff notes this comment; this alternative is among those addressed in Section 2.2.5.3 of the FEIS.

GIC9-3 Comment noted; Staff has considered visual issues, both in its assessment of alternatives and in its recommended conditions.

of Douglas Pike.

My contacts were made months before the FERC study and more recently in February of 1988.

The response was always the same, "We can do with our land what we please". No one was interested in being able to help reduce the impact of the OSP project or even in being good neighbors.

I have asked the following to stop or delay the cutting of the trees at least until DEIS came out:

Carlos Revis OSP
Paul Tongus OSP
Boston Edison ROW agent
Boston Edison Personal Relations
Logger hired by Boston Edison

All refused to delay action knowing FERC was studying the issue.

I even tried to purchase the land so I could maintain a natural barrier. They would not sell.

Their action is a window into the future.

They want to drive us out.

W-140

It is essential now more than ever that additional studies be undertaken to understand the full extent of all future actions on the existing natural barriers.

If the utilities companies and OSP are deceitful this early in the process, FERC's mitigative measures must include detailed provisions towards obtaining a permit.

The OSP project is forcing me to provide their visual barrier with my property, further restricting my benefitting toward future development. 4

It is an expense that I cannot afford.

See Exhibits 3, 4 and 5

6) Noise - Mitigative Measure # 5

Two steps must be taken to strengthen this measure.

1. Section 3.1.4.2 of the DEIS reads as follows:

"3.1.4.2 Applicable Noise Standards

At present, no noise standards or guidelines are enforced by the State of Rhode Island.

GIC9-4 Comment noted. As in its response to comment GIC8-53, FERC Staff observes that conditions can be imposed only upon those parties directly associated with the Ocean State Power project. Third parties are beyond the reach of these conditions. FERC Staff, where possible, has included the inability to condition the activities of third parties in its evaluation.

The Commonwealth of Massachusetts has an enforced noise guideline that limits average property line noise levels generated by an industrial/commercial facility to 10 dBA above the existing noise levels. This guideline excludes impact-type noises such as blasting."

Based on the input received at the DEIS hearing, additional studies are essential in order to meet the Massachusetts guidelines. 5

2.) On page 3-39 of the DEIS under noise, it is indicated that OSP proposes to limit noise "to 55 dBA at the site property line", yet the statement you present in the mitigative measure itself mentions "at the nearest noise sensitive areas (such as residences)." 6

This is totally unacceptable. The site property line has to be the zone line for the standard and this property line must be the one OSP has proposed to FERC.

The area is agricultural and I have property where I propose to place a home in the future. Because of the layout of the land, the measure, as it is written now, would wipe me out.

7) Night Lighting

My concern to FERC about night lighting have not been addressed.

The sky will become a huge frosted light bulb with the dissipation of cooling water in the air.

No where does the report mention measures imposed on OSP to reduce lighting within set standards. 7

The number of lights, intensity, necessary reflectors distance off the ground, etc are essential to the neighboring homes and land development potential from an aesthetic point of view.

The impact this plant will have on the night time must be studied.

8) Mitigative Measure # 12 OSP

A 100 foot buffer for a plant this size is totally inadequate. 8

My wife and I have a 14 acre parcel of land that has development potential for our future "nest egg". On this parcel exists a prime home site within 400 feet of the OSP plant.

W-141

GIC9-5 Please see the response to comment FA4-19.

GIC9-6 OSP has agreed to limit noise attributable to the operation of the proposed facility to an L_{dn} of 55 dBA at the nearest residence, and is therefore consistent with FERC policy for jurisdictional noise emitting facilities. This is equivalent to an L_{eq} of 48.5 dBA at the closest residence, which is approximately 1,200 feet south of the center of the plant equipment. At the nearest property line (760 feet south of the center), the L_{eq} would be approximately 53 dBA. The EFSB may require a lower noise limitation if it deems this appropriate.

GIC9-7 OSP has claimed that the facility will have "minimal to no impact on the night sky" (comment GIC8-26); Staff believes that night lighting at the plant will be somewhat noticeable to nearby residents. Effects of this will be reduced or mitigated in several ways. The 100-foot-wide, forested buffer will help to conceal the lighting. OSP does not intend to illuminate the site perimeter; outdoor lighting will generally be limited to roadways and equipment requiring maintenance. The light fixtures will be shielded, high-pressure sodium lamps that will be directed toward the areas to be lit.

GIC9-8 Comment noted; Staff believes that a 100-foot buffer is a sufficient width that, if forested, would provide an adequate visual barrier to the plant. Staff has also reviewed Commentor's Exhibit 6, which shows the 14-acre parcel that lies between the AT&T and Boston Edison rights-of-way, and concurs that if houses were to be constructed on that parcel, they would be very close to the plant site.

The area is one of a mature forest stand with little understrong growth. The former Leon Benkosky land had a natural 150 foot buffer between my property and the OSP plant. This no longer exists. Boston Edison wilfully removed the natural buffer. Further studies and steps must be taken to remedy siting of the OSP plant in an actively growing residential/agricultural zone. 9

I welcome the opportunity to meet with you at my property site.

9) Release upon Abandonment Clause for Tennessee Gas

In the original "Environmental Report" submitted by Tennessee Gas Pipeline Company, Docket No. CP87 - Exhibit F-IV, pg. 30, Sec. 3-3, it is indicated that the U.S. Department of Transportation by Federal code would be allowed to have all the inactive or abandoned rights of way return to their natural states.

Forever is a very long time. I request that FERC require the TGP draw into all easement agreements a "Release Upon Abandonment" clause. This would prevent abandoned lines from becoming a burden to real estate transactions in the future and would bring property back to a useful state without the legal hardship it could impose if it is no longer in use. 10

10) Purpose of TGP Easement

Tennessee has applied for a "Convenience and Necessity Permit" to transport natural gas. As a landowner I have no intention to grant an easement for as they put it "any substance that can be transported through a pipeline". The permit should only be issued for the substance that is necessary to transport at this time - natural gas. It is totally out of order to grant a permit for unknown substances 11

11) Buyout - OSP Mitigative Measure No. 15

The siting of the OSP plant in an agricultural/residential area is not in like character with the neighborhood. A Buyout or compensation plan for the change in the quality of life and economic hardship it would impose on its neighbors is absolutely essential. 12

Mitigative measure No. 15 clearly indicates compensation is a necessary part of the project.

However, it is far too weak to be effective. The plant is going to be a money making machine. Restraints that have to be imposed after the permits are issued will only force the weaker parties to lose.

GIC9-9 Please see the response to comment GIC9-4.

GIC9-10 A release-upon-abandonment clause is a matter for negotiation between the landowner and Tennessee. If and when Tennessee proposes to abandon these facilities it must apply for such authorization from the FERC under Section 7(b) of the Natural Gas Act. An environmental review would be undertaken at that time and appropriate conditions may be attached.

GIC9-11 A Certificate of Public Convenience and Necessity issued in the proceeding would allow Tennessee to transport only natural gas. The fact that the proposed easement agreement presented to the commentor suggests that other substances could be transported has no bearing on the authority contained within the Commission certificate, which is to transport natural gas. The matter is one for negotiation between the two parties. It should be noted that water would be used to hydrostatically test the pipeline prior to putting it into service.

GIC9-12 Please see the response to comment GIC3-2.

We will hardly be in a position to obtain a fair compensation settlement after the conatruction begins. The measure must be detailed and appraised before the permitting process is activated. It must also include the hardship on undeveloped land. My wife and I do not wish to fatten the coffers of OSP with all our life's inveatments. They are not using the land in like character to the neighborhood decide the financial impact NOW.

12) The Effect of Water Runoff on Proposed Pond Project on Saravara Property

On page 4-15 of the DEIS it is indicated the developed conditions of the project aite will increase offsite runoff 70% above existing levels.

I currently have a pond project on file with the Uxbridge Conservation Commission. The design of the system and project could be jeopardized with their increased flow. I do not expect any additional levels of water flow on or across my property as a result of the OSP project. I want assurances that the project will not reduce my ability or increase the coat to me of using my land. 13

See Exhibits 6 and 7

13) Blasting - Mitigative Measure No. 9 OSP

As a direct neighbor to the site, I expect a before and after evaluation of the effects of blasting on my well and building structures. The home I have rests directly on ledge. Any shock vibration will be transmitted directly into chimneys and foundations. It could be very tempting for blasters to use excessive charges to speed up the excavation process. Hore detail and protection must be put into this measure. 14

My well is a high producer at 60 gpm, very unusual for the area. I don't want to lose it. 15

See Exhibit 8

14) Use of the TGP Easement to the Property Owner

If an easement must be granted to TGP, it is absolutely essential that we both benefit from the use of the land. I am not interested in having a non-productive 2 1/2 acres as a result of this corridor. Therefore, if I cannot continue to reap the reward of forest product production, I expect to use the land for other suited agricultural use (for which it was intended). Therefore the property must be removed of all rocks and stumps, the area leveled and spread with loam to provide me the opportunity to plant Christmas trees, blueberry bushes etc. other shallow root system crops. FERC must ensure that the two uses of the property can

coexist, but I, as a landowner, cannot be expected to burden the expense of bringing the land back to a useful, productive agricultural state. I shall expect FERC to direct TGP to 16

W-143

GIC9-13 Total runoff volume from the OSP site would increase by 70 percent, due to the replacement of existing forest vegetation in portions of the site with grass cover, paved areas, and rooftops. Runoff from storms will be directed to detention basins, which will temporarily store excess runoff and release it over time. These basins, designed to RIDEM criteria, should prevent negative impacts to downstream receiving waters, including the pond project proposed by the commentor.

GIC9-14 Modern techniques allow rock blasting to be done in close proximity to
GIC9-15 buildings and other structures while causing little or no damage. Using procedures such as multiple-row blasting with short-delay ignition can ensure proper loosening and fragmentation of rock without unnecessary throw or significant vibration. When blasting work must be carried out close to buildings, consideration of ground vibration is often the primary factor determining blast design. Research has shown that people normally react strongly to the nuisance effect of ground vibration at levels significantly below those needed to cause damage to well-built structures (Langefors and Kihlstrom, 1978). The Staff notes that most states, including Massachusetts, Rhode Island, and New York, have strict regulations regarding the handling and use of explosives and the licensing of blasters. The blaster is liable for any damage he may cause. The nearest house is about 600 feet from the proposed plant fence line (1,400 feet in the case of the commentor). Because major gas pipeline, electric transmission line, and switching station facilities are much closer to the site, due care would need to be exercised in blasting operations. The commentor may request that the blaster perform such evaluation, but the Staff believes that requiring a monitoring program is unnecessary.

GIC9-16 Please note the revegetation techniques described in Section 2.2.3.2 of the FEIS.

provide me with a program/policy that will leave the land fertile and compatible with crops similar to those mentioned. 16 cont'd

14) Plume

Please note Exhibit 9. The direction of the Plume is directly over my ownership. This land has strong development potential. The profits of OSP are partially being made at my expense. I expect FERC to be the lead agency through studies and controls and enforceable measures to assure justice is served in this obviously destructive predicament I find myself in. 17

Respectfully submitted,

Wayne J. Saravara

cc: Secretary
Federal Energy Regulatory Commission
825 North Capital Street, N.E.
Washington, DC 20426

GIC9-17 The isopleths of plume water and plume salts deposition shown in Figures 4.1-1 and 4.1-2 do not represent a visible cooling tower plume. Rather, they are conservatively estimated patterns of the ground-level deposition of plume water and plume salts that may occur after the facility becomes operational. Except for areas immediately adjacent to the cooling towers (within a few hundred feet), plume water and salts deposition should not be perceived in the vicinity of the Saravara property. For additional information, please see the response to comment GIC4-2.

WORCESTER COUNTY, MASSACHUSETTS
TOWN OF UXBRIDGE
Exhibit 1
1501'
90.97 RODS
NOW OR FORMERLY
HERMAN R. HATHAWAY, et ux
290'
WAYNE J. SARAVARA, et ux
BOOK - 7345, PAGE - 288
BOOK - 6383, PAGE - 440
BOOK - 9955, PAGE - 197
other ownership.
EASEMENT
+ Proposed route discussed with Town Representatives.
S84°-33'E
369'
S53°-07'E
290'
200'
Centerline 50' From Land
NOW OR FORMERLY
JAMES R. KING, et al
1132'
DOUGLAS TURNPIKE
Surveyed property line
The actual course may not be perfectly straight. However it is essential the TGP
Cross and intersect the
Property lines at the angles and distances indicated
SURVEY LINE OF PROPOSED PIPELINE
NEW BEDFORD GAS & EDISON LIGHT COMPANY
ALGONQUIN GAS TRANSMISSION CO.
GRAPHIC SCALE
(IN FEET)
1 inch = 100 ft.
NO. DATE REVISION REV. BY OLD DWG. BY
REFERENCE DRAWINGS
DRAWING NO TITLE
Tennessee Gas Pipeline Company
Division of Tenneco Inc.
Engineering Department Houston, Texas
L.L. No. MA. RHODE IS 94, 93, 95.1 & 95.3
NOTE: THIS MAP WAS PREPARED BY PHOTOGRAMMETRIC METHODS
PROPOSED RIGHT-OF-WAY CROSSING
THE WAYNE J. SARAVARA, et ux
PROPERTY
WORCESTER COUNTY, MASSACHUSETTS
TB-L12-E26SE-100-94

GIC9 (cont'd)

Exhibit 2
ALGONQUIN ALTERN
LACKEY POND / TRANSMISSION LINE VARIATION (V-4)
SEAVER VARIATION (V-5)
(SEE FIGURE 2.2-18)
PROPOSED
RHODE ISLAND
EXTENTION
LACKEY POND / TOWN
LINE VARIATION (V-3)
SITE
TO CRANSTON

Exhibit 3

BAY STATE FORESTRY SERVICE

GIC9 (cont'd)

Leverett Road
Shutesbury, Massachusetts 01072

Telephone
(413) 253-7514

TO WHOM IT MAY CONCERN:

This letter is to notify you that Boston Edison Co. will be clearing an additional 150 ft. of width along ROW # 13 from Uxbridge to Mendon MA. This cutting will take place only on properties owned by Boston Edison Co. As an abbuttor on record to the property in question, you are hereby being notified of this action. If you would like further information or if you have any questions, please contact Dana Batley of Bay State Forestry Service at 617-869-6339.

Sincerely,

Dana Batley

W-146

Exhibit 4

BOSTON EDISON
800 Boylston Street
Boston, Massachusetts 02199

424 2000
424 2123

June 26, 1985

Mr. Wayne Saravara
Douglas Turnpike
Uxbridge, MA 01721

RE: Property of Boston Edison Company
Transmission Line 13, Parcel 2
Uxbridge, MA

Dear Mr. Sarvara:

Pursuant to our telephone conversation on June 24th, please find enclosed herewith a print of a plan showing, outlined in orange, the land owned in fee by Boston Edison Company, and situated on the southwesterly side of Douglas Turnpike in Uxbridge. You inquired relative to the possibility of purchasing the land situated northerly of and outside of the Company's transmission line corridor, all as shown outlined in purple. Total acreage contained in this excess land is 2.70+.

If you are interested in purchasing said property, kindly submit a letter to the undersigned stating therein a firm non-binding amount you would be willing to pay for a good marketable title to said acreage. Once received, we will submit said offer to one of our independent appraisers for his review and comments.

Please be advised also that Boston Edison Company pays no brokers commission to anyone, thus if you are acting as a broker in behalf of some other persons, any commission due you for any services rendered will have to be paid by others as no remuneration will be made by said Company.

Very truly yours,

John J. Bartley
Real Estate Department

JJB/mfs

Exhibit 5

GIC9 (cont'd)

OCEAN STATE POWER
110 TREMONT STREET, BOSTON, MASSACHUSETTS 02108 TELEPHONE (617) 451-1109 TELEX: 95-1459

August 13, 1986

Representative Richard T. Moore
House of Representatives
State House
Boston, MA 02133

Re: Ocean State Power

Dear Representative Moore:

I am writing in response to your letters of July 22 and July 29, 1986 concerning certain questions which have been raised about the proposed electric generating facility to be located in Burrillville, Rhode Island. Although the project is currently in the preliminary design and engineering stage, we have attempted to answer questions and provide information as completely as we can at this stage of the development of the proposed project. Those questions which we cannot answer in full at this time will be answered in more detail as information is obtained and developed.

In direct response to the questions raised in your letter, we submit for your information the following:

1. Q. Why is Boston Edison clearing its right of way to the Burrillville site?

   A. We have no knowledge whether Boston Edison is clearing its right of way to the Burrillville site. Any such clearing has no relation at all to the proposed project.

2. Q. What will be done with sewage from the plant?

   A. With respect to sewage from the plant, the proposed design of the plant provides for a wastewater clarifier system to treat any and all wastewater generated at the facility. The residue which remains after this treatment will be taken by truck from the site to a properly licensed landfill for disposal. It is expected that not more than two truck loads of residue per day will be so transported from the site.

3. Q. Will construction activity be conducted during normal business hours or otherwise?

   A. Although the final construction schedule has not been prepared, it is expected that construction activity will occur normally during the hours of 7:00 A.M.-

W-147

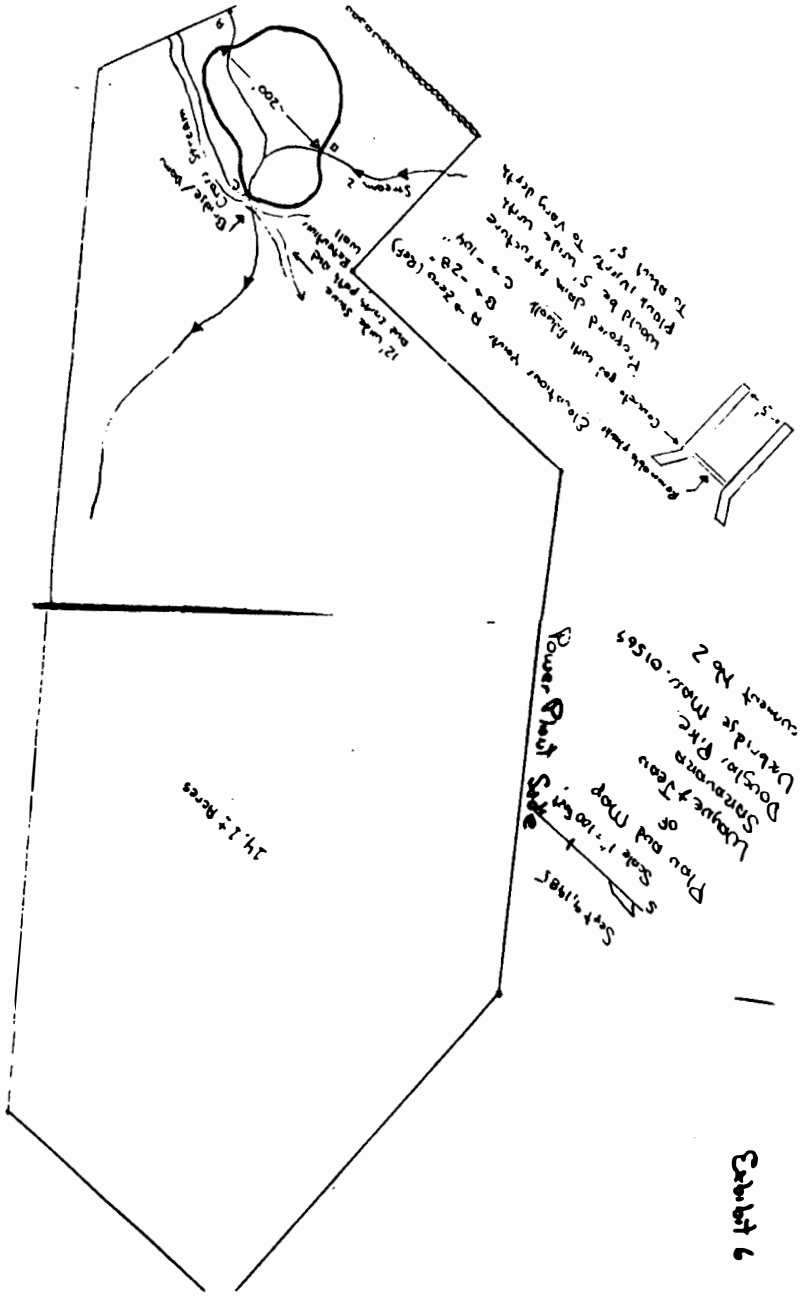


Exhibit 7

FORM 4

GIC9 (cont'd)

ORDER OF CONDITIONS

WETLANDS PROTECTION ACT

G.L. C. 131, s. 40

CITY/TOWN UXBRIDGE FILE NUMBER 312-48

TO: NAME Wayne & Jean Saravara ADDRESS Douglas Pike

Uxbridge, Mass. 01569

CERTIFIED MAIL NUMBER

PROJECT LOCATION:
Address Douglas Pike 14 Acre Parcel Westerly Side

Recorded at Registry of Worcester, Book 64484, Page .

Certificate (if registered)

REGARDING:
Notice of Intent dated September 9, 1985

and plans titled and dated September 9, 1985

THIS ORDER IS ISSUED ON(date) October 21, 1985

Pursuant to the authority of G.L. c. 131, s. 40, the UXBRIDGE CONSERVATION COMMISSION has reviewed your Notice of Intent and plans identified above, and has determined that the area on which the proposed work is to be done is significant to one or more of the interests listed in G.L. c. 131, s. 40. The CONSERVATION COMMISSION hereby orders that the following conditions are necessary to protect said interests and all work shall be performed in strict accordance with them and with the Notice of Intent and plans identified above except where such plans are modified by said conditions.

ISSUED BY UXBRIDGE CONSERVATION COMMISSION
Charles R. Smith, Chairman

Charles R. Smith
Arthur Hann
Edward J. Lorion
Paul Emmett
Mary A. Cassidy

On this 22nd day of October 1985, before me personally appeared Charles R. Smith to me known to be the person described in, and who executed, the foregoing instrument and acknowledged that he executed the same as his free act and deed.

Ellen F. D'Alfonso My Commission expires 1991

DETACH ON DOTTED LINE AND SUBMIT TO THE ISSUER OF THIS ORDER PRIOR TO COMMENCEMENT OF WORK.

TO UXBRIDGE CONSERVATION COMMISSION (Issuing Authority)

PLEASE BE ADVISED THAT THE ORDER OF CONDITIONS FOR THE PROJECT AT DOUGLAS PIKE

FILE NUMBER 312-48, HAS BEEN RECORDED AT THE REGISTRY OF WORCESTER

ON (DATE) .

If recorded land, the instrument number which identifies this transaction is
If registered land, the document number which identifies this transaction is

Signed
Applicant

W-148

TEL. 401 - 766-2832

(138)

COMPLETE
WATER SYSTEMS

Exhibit 8

A & J WELL CO.

P. O. BOX 698
SLATERSVILLE, RHODE ISLAND 02876

GIC9 (cont'd)

June 27, 1974

SOLD TO Wayne Saravara
Douglas Turnpike
Uxbridge, Mass.

245	Ft.	of drilling and 13 Ft. of 6" pipe.	$1,300.00

Well Log:
Drilled 245 Ft.
Bedrock 5 Ft.
Cased 13 Ft. of 6" pipe
Well made 60 GPM

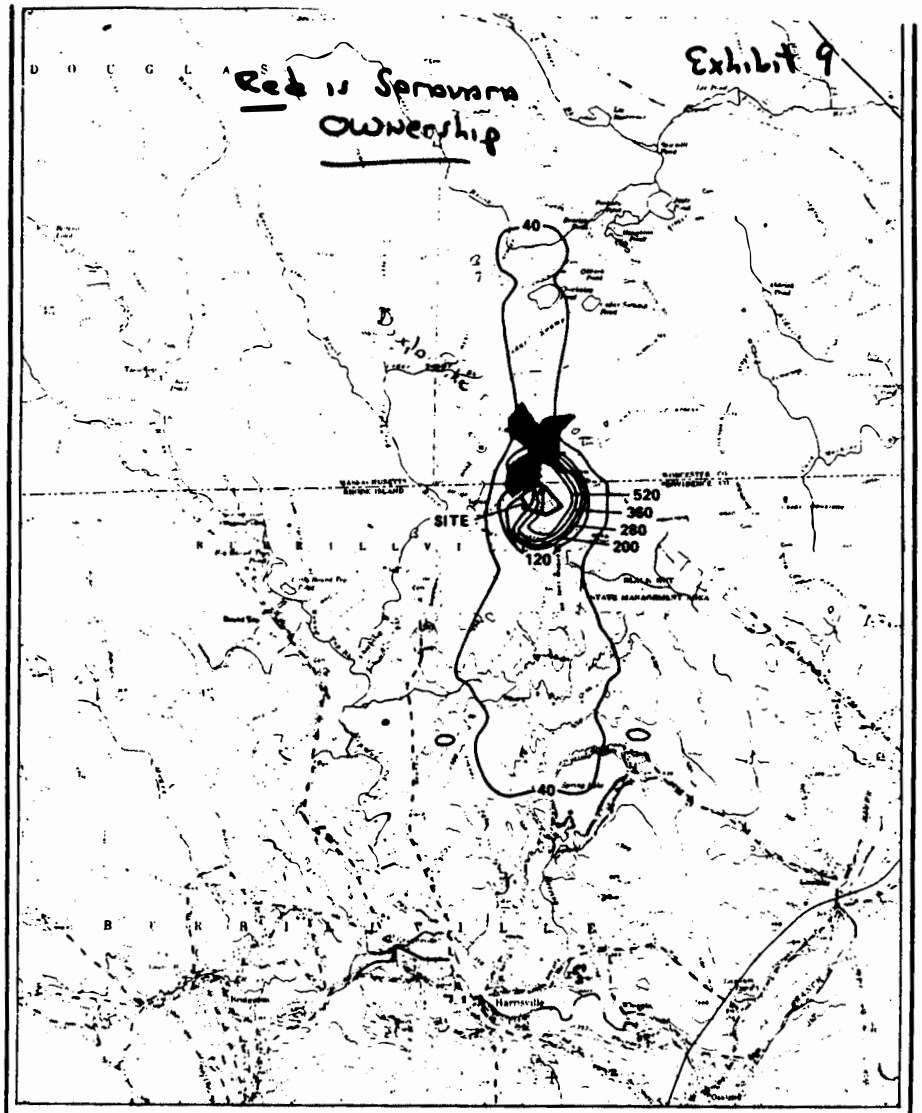
Paid in Full check #196735
Al Wright
July 24, 74

INTEREST AT THE RATE OF 1½% PER MONTH WILL BE ADDED TO ALL UNPAID BALANCES AFTER 30 DAYS.

W-149

Exhibit 9

Red is Saravara ownership



Base Map Source: U S G S 7½ Quad.
Chepachet, R.I., 1975 and Uxbridge, Mass., 1979

Contours: kg k m^2 mo
Multiply by 0.00894 to get lbs. acre mo.

0 4000 8000 Feet

FIGURE 4.1-2
PLUME WATER DEPOSITION

3060X

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

GIC10

In the Matter of	)	
	)	Docket No. CP87-131-001
Tennessee Gas Pipeline Company	)	Docket No. CP87-132-001

COMMENTS OF TENNESSEE GAS PIPELINE COMPANY ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Tennessee Gas Pipeline Company (Tennessee) submits these comments on the Ocean State Power Project Draft Environmental Impact Statement (DEIS) prepared by the Staff of the Federal Energy Regulatory Commission (Staff).

The DEIS is a complete analysis of the environmental consequences of the proposed projects, and Tennessee strongly supports its fundamental conclusion: that construction and operation of the Ocean State Power plant and associated pipeline facilities will have a limited adverse environmental impact and would be an environmentally acceptable action. Nonetheless, Tennessee does disagree with certain of Staff's recommended "mitigative measures," because they are unjustified, or beyond the Commission's jurisdiction.

W-150

I.

GENERAL COMMENTS

The DEIS is a voluminous document that required well over one year of preparation from the date the project was Noticed by FERC. During the preparation of the DEIS, Tennessee responded to dozens of detailed data requests submitted by Staff. Staff has conducted field surveys to inspect Tennessee's proposed route, alternate routes, and existing facilities, including recently-completed pipeline construction. Tennessee also notes that Staff has thoroughly considered various issues raised by appropriate agencies, individual landowners, and other concerned citizens.

Tennessee has been responsive to concerns raised by the Staff and others. In particular, the route design of the Rhode Island Extension has been extensively modified to mitigate impacts to landowners and the environment.

As a result of Staff's intensive analysis, and project modifications/improvements developed by Tennessee, most potential points of contention were resolved prior to publication of the DEIS. Nevertheless, Tennessee is not in agreement with Staff on some issues, and presents its rationale in the following comments.

II.

MITIGATIVE MEASURES

Staff has analyzed a number of alternatives and proposed extensive mitigative measures in the DEIS. In some cases, Tennessee has accepted Staff's recommendations regarding route changes and construction practices, in order to minimize impacts. Tennessee has also submitted extensive routing rationale to FERC in opposition to certain alternatives which Tennessee believes are unreasonable. Tennessee supports Staff's decision not to recommend the Loop 5 Alternative, the Loop 7 Alternative, and various alternatives along the Rhode Island Extension. Tennessee's rationale for opposing these alternatives has been well-documented in previous correspondence with Staff and is incorporated by reference.1/ Tennessee does object to several of Staff's recommendations, as explained below.

1

GIC10-1 Staff notes these comments.

W-151

1/ Correspondence from Tennessee Gas Pipeline Company to FERC dated: April 20, 1987; June 3, 1987; October 5, 1987; November 4, 1987; November 12, 1987; December 11, 1987; and February 2, 1988.

Mitigative Measure #1

"Tennessee shall not operate the proposed facilities unless: (1) OSP has implemented or agreed to implement the FERC Staff's recommended mitigating measures contained in Section 5.1.3 of this DEIS, or (2) the Economic Regulatory Commission attaches these mitigating measures as conditions to its permit granting Permanent Exemption from the requirements of the Fuel Use Act."

Response

Tennessee opposes this condition because it is an improper attempt to assert control over nonjurisdictional activities and because it seeks to appoint Tennessee -- an interstate pipeline company -- as an inspector over electric power plant construction.

FERC cannot use its conditioning power under Section 7(c) of the Natural Gas Act to accomplish indirectly what it is without jurisdiction to do directly. Further, neither FERC nor ERA has any jurisdiction over the construction of electric power plants; nor do FERC or ERA have any responsibility for or jurisdiction over environmental permitting of electric plant construction. In this case, these responsibilities vest in agencies of the State of Rhode Island. FERC thus is without power to require those agencies to adopt particular conditions.

FERC is, of course, required by the National Environmental Policy Act to review the environmental impacts of construction and operation of the Ocean State plant. Further, FERC can -- as in the DEIS -- suggest mitigative measures that would, in its view, reduce the environmental effects of construction and operation of the plant. FERC could even deny

2

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GIC10-2 This comment is noted; the wording of the Staff's recommendation has been modified. However, the Staff disagrees that the FERC cannot use its certificate conditioning power to impose measures to mitigate impacts that are inextricably related to a jurisdictional project.

a certificate outright on environmental grounds if the agencies with jurisdiction -- here the State of Rhode Island -- did not adopt these or similar mitigative measures. But FERC cannot use its Natural Gas Act conditioning power to usurp state land use and environmental permitting functions exercised with respect to nonjurisdictional facilities.

Tennessee's second concern arises from Staff's awkward effort to assert jurisdiction where it has none. With no power to issue or enforce environmental permits for construction or operation of power plants, Staff suggests that Tennessee be prohibited from operating tens of millions of dollars of pipeline facilities, which are constructed in full compliance with all environmental and other conditions, if Ocean State does not implement or agree to implement Staff's "mitigative measures." Staff provides no analysis of how this blunderbuss prohibition is in the public interest. As a practical matter, if Mitigative Measure No. 1 were imposed and upheld, Tennessee will not agree to begin construction of facilities absent Ocean State's agreement to comply with mitigative measures. Tennessee requests the Commission to clarify that, once it has obtained this agreement from Ocean State Power, Tennessee will have completely satisfied this condition without regard to how Ocean State implements its agreement. Tennessee is not in the business of constructing electric power plants and FERC cannot appoint Tennessee to be an environmental inspector for electric power plant construction.

2 cont'd

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Mitigative Measure #4

"The proposed Rhode Island Extension shall follow the route modification identified as the Seaver variation on Figure 2.2-18 of the DEIS."

Response

Tennessee strongly opposes Staff's proposed Seaver Variation (V-5) because the variation would increase the environmental and aesthetic impacts of the pipeline project, because it would unfairly shift the burden of environmental impact from one landowner (Mr. Seaver) to another, and because the impact of Tennessee's current proposal on Mr. Seaver's property is relatively small.

To help visualize Tennessee's concerns, Tennessee has attached to these comments an aerial photo (Attachment 1) showing the relevant portion of the Rhode Island Extension. Property lines have been overlaid on the photo, and the affected properties identified. Also shown is Tennessee's latest proposed alignment. This alignment differs slightly from the proposed alignment previously submitted to Staff in this detail: the proposed route has been further shifted to the east to keep impact to Seaver's property to a minimum. This slight modification was developed by Tennessee in response to negotiations with Mr. Seaver subsequent to Tennessee's last correspondence with Staff regarding this matter. Representatives of Tennessee presented Mr. Seaver with a drawing indicating this alignment on February 12. The enclosed

3

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GIC10-3 Staff has reviewed this comment and a separate letter received by Mr. Seaver (comment GIC13), and concludes that the alignment shift to the west side of Seaver's property, as proposed by Staff, would best serve the interests of Seaver and Olson. However, in consideration of Potter, their neighbor to the south, Staff has moved its preferred alignment to the north side of Maple Street, as shown on the revised Figure 2.2-22 in the FEIS. As initially shown on Figure 2.2-18 in the DEIS, the pipeline easement would have encumbered Potter's property on its entire frontage with Maple Street. The Staff disagrees that variation V-5 would cause any greater environmental or aesthetic impact than the proposed alignment.

photo clearly shows the existing homes along Maple Street -- these homes were not indicated in Figure 2.2-18 of the DEIS, nor were impacts to these existing homes addressed.

1) Variation V-5 increases the environmental and aesthetic impacts of the project. Staff notes that the V-5 modification would be about 250 feet longer (and cost $24,000 more) than the proposed route. This 250 feet would be in wooded acreage. This in itself represents an increased environmental impact. Note however that Staff's proposed modification entails 300 feet of clearing and construction along Maple Street, creating a significant visual impact to residents and passersby.

2) This variation unfairly shifts the increased burden of environmental impact from one landowner to neighboring landowners without consideration of their interests. Staff's V-5 modification unfairly and unreasonably shifts the burden from Seaver to his neighbors, Potter and Olson. Staff states that "V-5 would significantly reduce the loss of ... aesthetic quality that would occur from bisecting the (Seaver) property with the proposed pipeline." Tennessee must agree that avoiding the Seaver property will eliminate the loss of aesthetic quality to that property, but must urge Staff to consider the much greater loss of aesthetic quality on the Potter property created by clearing 300 feet of frontage along Maple Street.

3 cont'd

Tennessee has spent considerable time negotiating with landowners in order to develop a route which will minimize impacts to these individuals. Both Potter and Olson have stated that they have plans to subdivide their properties, and thus Tennessee has attempted to route the line to maintain the maximum development potential of these properties. Staff's proposed modification fails to take this into consideration. Nowhere in the DEIS does Staff indicate that it has either consulted with these neighboring property owners or that Staff has fully considered the increased impacts the V-5 variation would have on the Potter and Olson properties.

As the owner of an existing home on the south side of Maple Street, Potter clearly will perceive greater impacts from construction than Seaver or Olson. Tennessee's proposed route already parallels Potter's east property line for over 1300 feet. Staff's modification would impact an additional 300 feet of Potter's frontage along Maple Street, resulting in the removal of a significant portion of the wooded buffer between Potter's home and the street. Tennessee asserts that this impact to the existing Potter home is unnecessary and unwarranted. If Staff continues to recommend the V-5 variation, Tennessee urges that this alternate be modified such that the pipeline would parallel Maple Street on the north side rather than on the south side, to minimize further impact to Potter. Seaver would retain sufficient acreage for homesite development.

3 cont'd

W-156

The impact to Olson's property, while less severe, is nevertheless significant and must be considered. Olson has indicated his intention to subdivide his property into additional house lots that would run basically west to east. Access to these lots would be provided by a road built along Olson's west property line. Note that Olson provided for this by retaining a 50-foot strip of land when he sold the 2.5-acre parcel to Seaver. Tennessee has worked with Olson to develop an alignment that will protect his ability to develop his property. In fact, Tennessee has obtained a right-of-way agreement from Olson for the proposed pipeline. If the route is modified by Staff, Tennessee is not confident that it will be successful in re-negotiating this agreement with Olson.

Furthermore, Staff's proposed modification will impact the property owner west of Olson. Since Staff has not specified exactly where the line would be placed near Olson's western property line, it is schematically indicated on the enclosed photo as being on the property line. However for practical purposes the line would be placed on one property or the other. Paralleling this property line at less than a 25-foot separation will require that Tennessee negotiate a right-of-way agreement with both Olson and the adjoining neighbor on the west. Tennessee is not confident that a right-of-way agreement can be successfully negotiated with this adjoining property owner.

3 cont'd

W-157

Tennessee has attempted to negotiate in good faith with all the affected landowners along the proposed route, and has extensively modified its alignment to minimize adverse impacts to landowners, including Seaver, Olson, and Potter. Olson has signed a right-of-way agreement, and Potter has indicated a general acceptance of Tennessee's proposed route. Therefore, Tennessee believes that it would be unfair and unjustified to shift additional impacts to these neighboring landowners. Tennessee believes that this action is unwise and unwarranted.

3) Tennessee's current pipeline alignment will not have a significant impact on the Seaver property. The DEIS states that "Mr. Seaver has expressed a concern that approval of the proposed route would severely limit and constrain the use of his property for its intended use as a homesite." (pp. 2-171, 2-173). However, this statement is unsubstantiated. Tennessee asserts that it is without foundation. The Seaver property is approximately 2.5 acres in size, with a frontage of over 300 feet. Tennessee's proposed route closely parallels Seaver's east property line north from Maple Street, to avoid adversely impacting the development potential of the property. The portion of Seaver's property west of the pipeline is approximately 1.5 acres in size, with a frontage of 275 feet. Note also that this western portion fronting on Maple Street is fairly level, but that the back

3 cont'd

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portion on the northeast side of the property drops off fairly sharply in elevation. (This is shown in Figure 2.2-18.) Clearly the western side of Seaver's property is the prime area for siting a residence. In addition, homes in this area are typically built near the road, not set back in the woods, partially in response to the demands created in removing snow from driveways to maintain access. In this regard, the western portion of Seaver's property is again clearly more suitable for siting a home.

During our negotiations, Tennessee has received no information from Mr. Seaver that he intends to site a home on the sidehill portion at the back of his property. Logic dictates that the western portion fronting onto Maple Street is the preferable homesite. This property will still be in full compliance with local zoning requirements -- utility easements are considered as property for meeting lot size and frontage requirements. The 1.5-acre portion to the west of the pipeline is clearly sufficient for residential development -- compare the size of even the largest homes on the enclosed photo. And the 1-acre portion above and east of the pipeline will still be suitable for various residential land uses -- only on the 50-foot easement would the placement of structures be prohibited. Thus, the presence of the pipeline will have very limited effect on uses of the land.

3 cont'd

Tennessee therefore maintains that the proposed route will not significantly limit or constrain Seaver's intended use of his property as a homesite.

In sum, Tennessee has extensively modified the proposed alignment of the Rhode Island Extension in response to legitimate concerns raised by landowners, relevant agencies, and FERC Staff, and Tennessee believes that its currently proposed alignment represents the best possible route. Any route, however, involves trade-offs of various kinds; one concern must be weighed against another and a judgment rendered. Even if the resulting compromise is in reality equitable, it will not be perceived as such by every individual involved. In right-of-way acquisition, it is essential that each landowner's concerns are considered, but it is not essential that every affected landowner be totally satisfied with the final route alignment: this is an impossible goal. Congress was aware of this impossibility when it empowered FERC with the authority to grant the Right of Eminent Domain. Otherwise, any project determined to be in the best interest of the public could be stopped by one landowner who opposed the project.

3 cont'd

Mitigative Measure #6

"Topsoil shall be segregated in all wetland areas crossed by the proposed pipeline facilities to the maximum extent practicable, unless the appropriate state or local

4

GIC10-4 Please see the responses to comments FA3-24, SA4-8, and SA4-10. Staff disagrees that it has overstated the impacts of construction in wetlands. Staff does agree that topsoil segregation may be impractical or not environmentally preferable in some circumstances, such as where the spoils pile could not be contained within the cleared right-of-way. This recommendation is not an "edict," but the Staff's opinion on an environmentally appropriate action; EPA, USFWS, and NYDEC agree.

With respect to defining wetlands, these are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is covered by shallow water. For the purposes of this recommendation, wetlands must have one or more of the following three attributes: at least periodically, the land supports predominantly hydrophytes; the

permitting authority specifically grants Tennessee relief from this requirement."

Response

Tennessee objects to this recommendation for the reasons stated below.

Tennessee believes that the Staff has overstated the impacts of construction in wetland areas, with or without the use of topsoil segregation. While some short-term disturbance is inevitable, Tennessee has found that wetland areas revegetate well within a season or two following construction. Staff implies that wetland construction without topsoil segregation creates greater environmental impact than wetland construction using topsoil segregation, but presents no supporting documentation. Tennessee believes that topsoil segregation in wetlands provides minimal environmental protection, if any. In some instances, topsoil segregation may even increase environmental impacts associated with construction, due to the additional right-of-way width requirements, temporal length of the construction period, and increased movement of earth-moving equipment.

Tennessee is required to obtain wetland permits from various local and state bodies prior to construction. These individual permits will stipulate numerous site-specific construction procedures tailored to the existing environmental conditions and any special environmental sensitivity. Where

4 cont'd

substrate is predominantly undrained hydric soil; and the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year.

appropriate, these permits may include a condition that topsoil be segregated in certain wetlands. Tennessee would comply with any such requirements imposed by local or state permits. This permitting process is adequate to protect sensitive wetland habitats. Local wetland boards, familiar with the characteristics of individual wetlands, are well-qualified to determined where topsoil segregation is needed. It is therefore unreasonable to impose upon Tennessee the requirement that "topsoil shall be segregated in <u>all</u> wetland areas unless the appropriate ... state or local permitting authority specifically grants Tennessee relief from this requirement." These local and state authorities may interpret Staff's recommendation as a strict federal edict, and may be reluctant to waive topsoil segregation, even in those cases where this procedure is unnecessary and unwarranted. 4 cont'd

Finally Staff's recommendation, as stated, is overly broad in that it is not limited to any specific wetland areas, regardless of sensitivity. There is no justification for requiring topsoil segregation in every area that meets some definition of the word "wetland".

<u>Mitigative Measure #9</u>

"No herbicides shall be applied in or adjacent to any wetlands affected by the proposed project." 5

GIC10-5 Staff has reconsidered this recommendation and determined that, since it would apply only to the facilities proposed in this project, the restriction would be largely ineffective. Staff hopes that Tennessee will continue its current practice of not using herbicides in New York as well as Massachusetts and Rhode Island.

Response

Tennessee objects to Staff's recommendation as being unreasonably restrictive. Tennessee does not have any program to use herbicides for maintenance of right-of-way in Northeast wetlands. However, the Environmental Protection Agency has approved certain herbicides for use in wetland areas, and can be expected to license additional herbicides for wetland use as they may be developed during the life of the pipeline facilities. Federal and state laws permit the application of these materials under carefully controlled conditions. Indeed these materials are routinely applied by private individuals, commercial firms, and state and federal agencies involved in land management. Despite this widespread use, Staff has presented no evidence to support its implication that herbicide application in wetlands creates more environmental impact than other means of vegetation management. Nor does Staff limit this proposed herbicide ban to sensitive wetlands, but merely refers to "any wetlands." In this regard, Staff's recommendation is unreasonable and overly broad.

5 cont'd

Tennessee has stated its commitment to comply with all federal, state, and local laws and regulations concerning herbicide application, including any that restrict the use of herbicides in wetlands. Tennessee asserts that any further restrictions imposed by Staff would be unjustified.

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Mitigative Measure #12

"Tennessee shall avoid construction within Papscanee Marsh (Loop 6) between April 1 and June 30 to avoid disturbing the suspected breeding site of least bittern, a New York State listed special concern species."

Response

Tennessee objects to this restriction because it will adversely impact the scheduling of construction activities. Tennessee expects clearing and grading to be underway well before June 30. If Tennessee is required to postpone construction activities in Papscanee Marsh beyond June 1, additional mobilization of workers and equipment will be required, and construction costs will increase as a result.

6

GIC10-6 The Staff's recommendation has been modified; please see the revised Section 5.2.3.2.

Mitigative Measure #14

"Tennessee's right-of-way restoration shall comply with the specified seeding mixes, rates, and dates, and with the use of mulch, as shown in Table 4.2-1 of this EIS."

Response

Tennessee objects to this measure for the reasons detailed below.

1) Staff's recommendation is overly restrictive. By specifying precise seed mixes, Staff has created an inflexible revegetation program that is unresponsive to site-specific conditions encountered in the field (including unseasonable weather conditions). Staff has also failed to address the

7

GIC10-7 The Staff's recommended seeding program is based on the experience of the U.S. Department of Agriculture, Soil Conservation Service, and on its own many years of professional experience in right-of-way restoration. The seed mixes recommended by Staff are both widely available and adapted to a range of conditions encountered along the pipeline route. While it is recognized that usually several seed mixes can be used in any given set of conditions, Tennessee did not identify its preferred species mix in response to Staff's data request. The Staff believes that it is necessary to specify the seed mixes to be used before certification, with the exception of any different species specified by landowners, to ensure that adapted species are used.

Staff does not object to Tennessee's suggested use of perennial ryegrass in the recommended seed mixes. "Linn" perennial ryegrass (as opposed to Pennfine or Citation) provides a rapid cover, and in the event that seeding occurs within the narrow window between fall germination and winter dormancy, it would provide additional erosion protection. However, this grass provides only short-term cover; it is therefore important that the seeding rate be low enough that it does not compete with the perennial species in the mix during germination and establishment. The recommended seed mixes have been modified to include "Linn" perennial ryegrass at a rate of 5 pounds per acre (Table 4.2-1).

Staff notes that page 13 of Tennessee's plan identifies a few common species used in right-of-way restoration, but does not identify any seed mixes, or explain how they would be applied. Staff does not object to Tennessee's proposal to change seed mixes based on specific requirements from landowners.

Staff suspects that the SCS official in Hampden County was referring to the fact that deertongue is susceptible to competition from other species during germination. This is the main reason why it is only seeded in combination with other nonaggressive species, such as trefoil. However, once established, Tioga deertongue competes extremely well with other species in very acid, sandy and gravelly soils, and may be the only species that will produce acceptable stands.

possibility that some components of the recommended seed mixes may not be available when needed: in this situation, it may be necessary to substitute similar planting materials. Tennessee asserts that the final decision on seed mixture is most appropriately made by company personnel in consultation with appropriate authorities shortly before revegetation commences.

2) Staff's recommended seed mixtures are deficient in several respects. While Staff has taken into consideration a number of the significant variables involved in right-of-way revegetation, Staff has nevertheless overlooked several considerations critical to good revegetation. Staff has also made certain recommendations which are impracticable. Based upon extensive experience in the field of right-of-way restoration, Tennessee submits the following comments on Staff's recommendations.

In each of its recommended seed mixtures, Staff has failed to include quick-germinating species such as perennial ryegrass, despite the fact that Tennessee specifically mentioned the use of ryegrass in its Sediment and Erosion Control Plan and its April 20, 1987, response to Staff's Data Request No. 22. This type of planting material is very useful for right-of-way restoration. If revegetation cannot commence until fall, germination of Staff's recommended seed varieties may not occur until spring, but ryegrass germinates rapidly, stabilizing the soil surface and minimizing erosion potential until other species can become established.

7 cont'd

The grasses that Tennessee prefers will not tolerate acid conditions as well as Tioga deertongue. Also, the mix is too high in tall fescue, which does not tolerate high acidity, and too low in redtop, which fairs better. In deference to Tennessee, the seeding table has been changed to specify tall fescue (at a lower rate), and a higher percentage of red top. Birdsfoot trefoil has been added to improve longevity of the stand. The Staff strongly suggests that Tioga deertongue be seeded in acid soils where the above mix fails to produce an acceptable stand.

Flatpea has become a species of choice for rights-of-way because of its ability to suppress woody growth. A good stand of flatpea will significantly reduce the need to mow the right-of-way, thereby reducing maintenance costs and the occasional environmental disturbance from mowing. Staff does not agree that it has critical germination requirements or that it requires specialized seeding equipment. Flatpea has been successfully established by hydroseeding over a slightly roughened surface. The mix was not intended as a requirement, but as a recommendation mainly to help Tennessee reduce maintenance costs. Because of Tennessee's objection to this mix, it has been removed from the table.

The Staff disagrees with the contention that the recommendation is unnecessary, based on Tennessee's past performance. Although for the most part the Staff believes that Tennessee's recent revegetation work has been adequate, it is always possible that individual projects will deviate from the minimum practices. For example, during Staff's September 21 and 22, 1982, inspection of right-of-way restoration along portions of the NESP project (Docket No. CP80-65), Staff observed that many areas were bare and eroded some 6 to 9 months after construction. Staff's opinion was that the failure was caused by seeding at the wrong time of year, and by the lack of mulch and runoff diversions on slopes. Tennessee personnel informed Staff that the erosion problems would be corrected. However, in Staff's opinion the problems were avoidable with proper revegetation practices. As stated previously, Tennessee did not provide any information on seed mixtures. Staff believes this recommendation is necessary to ensure that adequate seeding practices are used.

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This rapid revegetation also provides an aesthetically pleasing appearance, which landowners appreciate. Staff has apparently overlooked the benefits of establishing vegetation shortly after construction: on page 4-70 Staff notes that "it is more economical to seed while the right-of-way is being cleaned up than to wait for the best seeding season," but fails to note that this procedure also reduces erosion potential and may provide winter browse for wildlife.

Tennessee believes that, with the inclusion of ryegrass, Staff's first seed mixture (trefoil, fescue, redtop) would be adequate for general use. This seed mix is similar to the conservation mixes referred to in Tennessee's Sediment and Erosion Control Plan.

7 cont'd

Staff's second seed mix (trefoil, reed canarygrass, redtop) was developed for use in a wet area, and should be appropriate for this purpose. Note however that some landowners and land-managing agencies dislike some of the characteristics of reed canarygrass. Tennessee will offer affected landowners the option of using an alternate seed mix if they object to this seed mix.

Tennessee is apprehensive about Staff's third seed mix (trefoil, deertongue), due to the fact that a single grass species is used on an area Staff describes as sandy and extremely acid. Tennessee also notes that no optimum seeding date is presented for this mixture. Tennessee consulted with

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the U. S. Soil Conservation Service in Hampden County regarding the recommended seed mix; an SCS representative indicated that deertongue is slow to establish, and does not compete well with other grasses. The following seed mix was suggested by SCS as an alternative that would establish more quickly: 50 pounds of tall fescue and 2 pounds of redtop per acre. Tennessee has had good success with these materials on acid soils and supports this alternative seed mix.

Tennessee believes Staff's fourth seed mix (flatpea, fescue, redtop) is inappropriate for widespread use, although it may have specific uses. As Staff notes, flatpea has very critical germination requirements. The seed must be buried to a depth of one to one-and-one-half inches. This is not compatible with typical right-of-way revegetation equipment or procedures. Staff also correctly notes that there is only a limited optimum seeding date for flatpea. This severely limits its usefulness for right-of-way revegetation.

7 cont'd

3) Staff's recommendation is unnecessary. Tennessee has many years of experience in revegetating rights-of-way following construction, and is committed to establishing vegetation on these disturbed areas. In the past, Tennessee has consulted with appropriate agencies and other knowledgeable sources in the development of suitable seed mixes. Tennessee believes that this process has worked well, as evidenced by its recent construction projects in the northeastern United States. Indeed Staff has presented no evidence that

Tennessee's past revegetation practices have been less than sufficient. Tennessee asserts that the seed mixture information previously submitted to Staff is adequate to ensure good revegetation, therefore mitigative measure #14 is unnecessary.

7 cont'd

GIC10-7 Comment noted; Staff appreciates Tennessee's sensitivity to the importance of revegetation.

Mitigative Measure #16

"Tennessee shall install and maintain visual barriers of natural vegetation where the proposed gas delivery pipeline for the OSP plant crosses Douglas Pike to help maintain the wooded character of the area."

Response

Tennessee notes that the pipeline alignment turns sharply either side of Douglas Pike, in such a way that there will be no long views down the cleared right-of-way. Therefore visual impact will not be significant. However, Tennessee is willing to install and maintain visual barriers along Douglas Pike, to the extent that the bases of large woody specimens are not closer than 10 feet from the pipe. This provision is intended to prevent tree roots from damaging the protective pipe coating or interfering with the pipeline's cathodic protection system.

8

GIC10-8 Comment noted; Staff appreciates Tennessee's sensitivity to the importance of visual impact mitigation.

III.

OCEAN STATE POWER PLANT MITIGATIVE MEASURE

OSP Mitigative Measure No. 15:

"OSP shall develop a "buyout" plan or propose some comparable compensation mechanism to compensate local residents who would be most significantly affected by the plant. This plan should be acceptable to the Energy Facilities Siting Board, the Burrillville and Uxbridge town councils, and the affected landowners."

Response

Tennessee is not directly affected by this proposed mitigating measure; it was not proposed as a condition of Tennessee's proposed construction. However, Tennessee is strongly opposed to the precedent that Staff's proposal would set for sny company or entity involved in construction projects. The only justification for this proposal is a concern that "net benefits would be unequally distributed throughout the local community unless some compensation is provided to residents in the immediate vicinity of the power plant." (DEIS at p. ES-2)

First, Tennessee is unaware of any provision in either the Natural Gas Act or the National Environmental Policy Act which authorizes the Commission to act as a social welfare agency redistributing the net benefits associated with construction of nonjurisdictional facilities.

Second, Tennessee is concerned that the Commission's proposal might subsequently be advanced in pipeline

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9

GIC10-9 Please see the response to comment GIC3-2.

construction projects, where the Commission does have jurisdiction. If so, however, the FERC would then be interfering with the jurisdiction of state and federal courts to determine, in condemnation proceedings, fair compensation for a taking of private property for public good.

Third, the Staff's proposal, as drafted, would appear to preclude any construction of public facilities that might affect private landowners. By requiring a plan to be acceptable to local town councils "and affected landowners," Staff appears to contemplate a world in which pipeline, power plant and transmission line construction can take place with acquiescence from all individual landowners. Yet it was precisely because utility construction cannot obtain the agreement of all affected landowners that state and federal statutes -- including the Natural Gas Act -- provide a right of eminent domain. 9 cont'd

The Staff's proposed compensation system is of great potential significance, and yet has been suggested with absolutely no analysis of its impact either to this project or as it might be extended to other projects that might require federal approval. Tennessee strongly urges the Commission to delete Staff's proposal to require a "buyout" plan for landowners.

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IV.

TYPOGRAPHICAL ERRORS

Tennessee has identified the following minor typographical/editorial errors in the DEIS.

- page 2-127, Section 2.2.1, line 5: "proposed by OSP" should read "proposed by Tennessee." | 10

GIC10-10 Comment accepted; please see the revised Section 2.2.1.

- page 2-130 (Table 2.2.-1): the notation "(b)" should appear under the "Length" column for both "Station 233" and "New Sherman Road Meter Station." | 11

GIC10-11 Comment accepted; please see the revised Table 2.2-1.

- page 2-157, Section entitled "Stringing": The second sentence is incorrect as stated. The following statement should be used instead: "Where the supply, schedule, and location permit, the pipe would be transported directly from the rail car to the right-of-way. The pipe will be placed along the right-of-way at the side of the ditch." | 12

GIC10-12 Comment accepted; please see the revised Section 2.2.3.2.

- page 3-84, Section 3.2.6.1, par. 2, line 2: "Hudson" should read "Niagara." | 13

GIC10-13 Comment accepted; please see the revised Section 3.2.6.1.

V.

NEED FOR ADDITIONAL FACILITIES

The DEIS analyzed the impact of construction and operation of both Unit 1 and Unit 2 of the Ocean State plant, | 14

GIC10-14 Comment noted; please see the response to comment FA2-2.

but only analyzed the pipeline facilities needed to transport the 50 MMcfd for Unit 1 of OSP. Staff noted on pages 1-3 that it is not possible at this time to state exactly what facilities Tennessee would need for firm transportation of the Unit 2 fuel requirement, nor whether Tennessee would even be involved in supplying fuel for Unit 2. Staff expressly states its intention to conduct an appropriate environmental analysis if and when Tennessee files an application for transportation of fuel for OSP Unit 2. This procedure will permit Unit 1 construction and operation to proceed without undue delay, while still providing sufficient opportunity for environmental review of the pipeline facilities needed for transporting Unit 2 fuel.

14 cont'd

Ocean State Power has contacted Tennessee for firm transportation of Unit 2 volumes, and Tennessee has initiated facilities design work for this project. These facilities have not as yet been established, but Tennessee notes that this expansion would include additional looping (primarily alongside existing rights-of-way) and/or compression on its Niagara Spur line and its 200 Mainline, upstream of the Rhode Island Extension; no additional facilities will be required on the Rhode Island Extension to provide service for the Unit 2 power plant.

These facilities will be similar to the looping and compressor facilities analyzed under the OSP proposal, and will be subject to appropriate Staff review. Furthermore, these

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facilities will be constructed in accordance with Tennessee's construction specifications, including those in its Sediment and Erosion Control Plan, and will comply with Staff requirements as set forth in the Certificate. Consequently, Tennessee believes that the proposed facilities needed to supply Unit 2 will not constitute a major Federal action significantly affecting the quality of the human environment, and that this proposed expansion would be environmentally acceptable. Tennessee believes that Staff will be able to perform its environmental review in an expeditious manner through the preparation of an Environmental Assessment (EA) rather than through the more lengthy EIS process. Appropriate state and local regulatory bodies will have ample opportunity to comment upon the proposed facilities during the EA process.

14 cont'd

Tennessee supports Staff's rational approach to the issue of future expansion, namely (1) the immediate analysis of the readily identifiable Unit 1 and Unit 2 power plant facilities followed by (2) the deferred analysis of any pipeline facilities needed for Unit 2 fuel until such time as those facilities can be determined. Tennessee urges Staff to proceed with the Certification of the facilities proposed in the DEIS, in order to allow the orderly construction of these facilities to commence.

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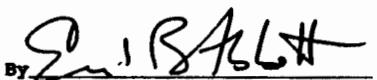
VI.

CONCLUSION

The Draft Environmental Impact Statement fully and completely analyzes the environmental impacts of the construction and operation of the proposed power plant and associated pipeline facilities, and concludes that the project will have a limited adverse environmental impact and will be an environmentally acceptable action. Tennessee does oppose certain mitigative measures proposed by Staff as unjustified, unnecessary, and in two cases, beyond the Commission's jurisdiction. With these caveats we request the Commission promptly to issue a Final Environmental Impact Statement and a certificate authorizing Tennessee to construct and operate facilities as proposed.

Respectfully submitted,

TENNESSEE GAS PIPELINE COMPANY

By 

Ernest B. Abbott
Deputy General Counsel
P. O. Box 2511
Houston, Texas 77252

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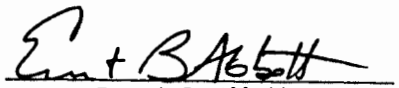
CERTIFICATE OF SERVICE

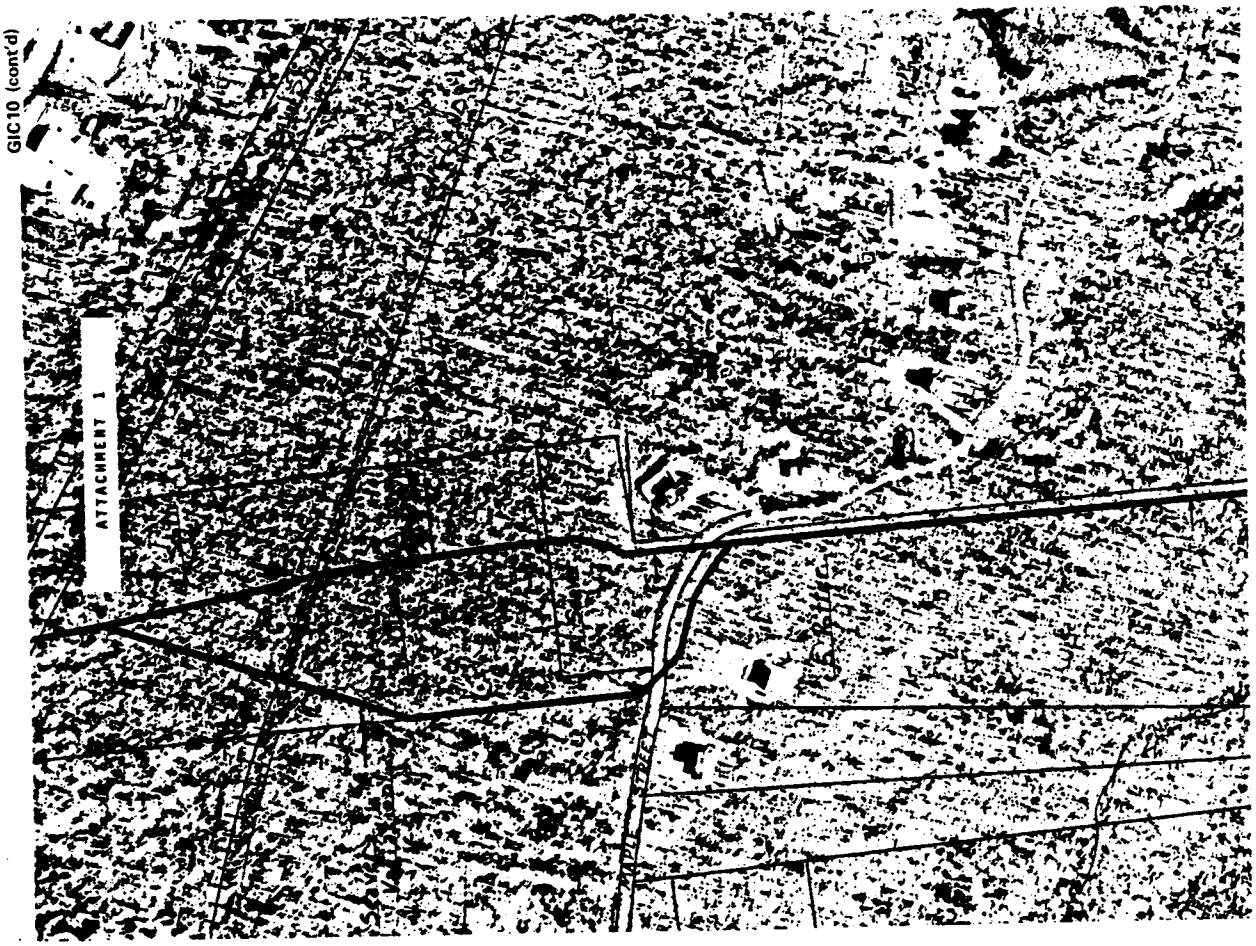
I hereby certify that I have served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Houston, Texas, this 23d day of April, 1988.



Ernest B. Abbott

GIC10 (cont'd)



GIC11

Uxbridge Public Schools

Michael B. Ronan
Superintendent
GRANITE STREET, RR 02, Box 4C-1 • UXBRIDGE • MASSACHUSETTS 01569 • (617) 278-5442

April 14, 1988

Secretary
Federal Energy Regulatory Commission
825 North Capitol St. NE
Washington, D.C. 20426

Dear Secretary:

I am writing to express my strong support for the location of the Ocean State Power generation facility, at the proposed site in Burrillville, Rhode Island Island.

Ocean State Power Company has demonstrated a willingness to design a facility that meets power generation needs of this area in a manner that is sensitive to the environment.

Thank you for consideration of my views.

Yours truly,

Michael B. Ronan
Superintendent of Schools

MBR/j
cc: Mr. Lonnie Lister
REF:CP87-132-001

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UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Tennessee Gas Pipeline Company) Docket Nos. CP87-131-001
) and CP87-132-001

GIC12

COMMENTS OUT OF TIME OF
ALGONQUIN GAS TRANSMISSION COMPANY
IN RESPONSE TO DRAFT ENVIRONMENTAL IMPACT STATEMENT

Algonquin Gas Transmission Company ("Algonquin") hereby submits its comments out-of-time in response to the Draft Environmental Impact Statement ("DEIS") released by the Federal Energy Regulatory Commission ("FERC" or "Commission") in the above-captioned proceedings on proposed natural gas pipeline facilities and a proposed 470 megawatt power plant in northwestern Rhode Island.

I.

On December 19, 1986, Tennessee Gas Pipeline Company ("Tennessee") filed applications before the Commission for authorization to transport up to 50,000 Dt/d of natural gas and to construct interstate natural gas pipeline facilities to deliver gas from the Canadian/United States border at Niagara, New York to the proposed site of a new electric power generating plant in Burrillville, Rhode Island. Ocean State Power ("Ocean State") proposes to construct, in two phases, a 470 megawatt (two units, each 235 MW)

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GIC12 The discussion of the Algonquin alternative has been expanded in the revised FEIS Section 2.2.5.3.

combined-cycle electric generating station, which will burn natural gas as its primary fuel. The Ocean State Power project will provide base-load electricity to the New England Power Pool grid.

II.

On September 21, 1987, Algonquin, a party in Docket Nos. CP87-131 and CP87-132, filed timely comments in this proceeding in response to the Notice of Intent to Prepare a Draft Environmental Impact Statement and Request for Comments on its Scope ("Notice of Intent") issued by the Commission. (See Attachment A). In its comments, Algonquin stated that its existing facilities were favorably located to provide the requisite gas transportation service to Ocean State. Algonquin explained that the proposed Ocean State plant site is located approximately 5.0 miles downstream of Algonquin's Burrillville, Rhode Island compressor station, and that Algonquin's 24-inch mainline and 30-inch mainline loop runs through the proposed Ocean State power plant site. Algonquin further stated that a major interconnection between the facilities of Algonquin and Tennessee already exists only a short distance from the Ocean State site which would allow for delivery of Ocean State's supply into Algonquin's system. Algonquin further indicated in its earlier comments that it could therefore serve Ocean State by adding a single compressor station on a suitably selected

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site of approximately five acres (the "Algonquin Alternative"), in comparison to the construction by Tennessee of approximately 11.0 miles of 20-inch pipeline through primarily virgin right-of-way (the "Rhode Island Extension").

III.

On March 4, 1988, the Commission released the DEIS on Tennessee's proposed natural gas pipeline facilities and Ocean State's proposed electric power plant. The DEIS was prepared under the direction of the FERC in cooperation with the State of Rhode Island Office of Intergovernmental Relations to satisfy the National Environmental Policy Act and the Rhode Island Energy Facility Siting Act. The DEIS states that the Commission staff has determined that approval of the proposed project, including the proposal by Tennessee to construct and operate pipeline facilities, with appropriate mitigating measures, would be an environmentally acceptable action and that approval of the proposed project would have limited adverse environmental impact. (DEIS at p. ES-1). The natural gas pipeline facilities covered in the DEIS include a total of 25.5 miles of 30-inch diameter looping in five separate segments located adjacent to existing Tennessee gas transmission pipelines in New York and Massachusetts. Also included in the DEIS are approximately 11 miles of new 20-inch diameter pipeline in

Massachusetts and Rhode Island constituting part of the "Rhode Island Extension". [1]

Comments on the DEIS were due on April 25, 1988.

IV.

Algonquin is actively involved in the open season proceeding initiated by the Commission in Docket No. CP87-451-000. In recent months, Algonquin has been engaged in the preparation of numerous documents in response to certain Commission open season orders and various pleadings filed by other open season participants. This extraordinary process has demanded the attention of all Algonquin personnel who otherwise would have been available to review and prepare comments on the DEIS. As a result of this exceptional conflict of work load and unavailability of assistance in this matter, Algonquin did not file timely comments on the DEIS. However, the acceptance of these comments should not delay the Commission staff in its preparation of the Final Environmental Impact Statement, a process which typically takes several months. Accordingly, Algonquin respectfully requests permission to file these comments out-of-time.

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[1] Tennessee proposed in Docket No. CP87-75-000 to construct and operate, inter alia, 10.7 miles of 20-inch diameter pipeline and 25.3 miles of 16-inch diameter pipeline to a new delivery point in Cranston, Rhode Island. This new pipeline system was identified as the "Rhode Island Extension." Algonquin filed comments, attached hereto as Attachment B, in response to FERC's data request dated March 6, 1987 related to that proposal.

As noted above at Section II, Algonquin filed timely comments in response to the Notice of Intent in this proceeding and has responded to FERC data requests. This earlier filing not only sets forth the basis of Algonquin's substantial interest, but also provides the public interest grounds for permitting Algonquin's late comments; namely, Algonquin's alternative proposal will spare Ocean State's ratepayers from incurring the unnecessary expense of additional facilities necessitated by Tennessee's proposal. Algonquin's proposal would obviate the need for new facilities on approximately 11 miles of virgin right of way, thereby greatly reducing adverse environmental impact. Further, Algonquin notes the existence of related Tennessee applications in the open season proceeding. These applications and the Commission's proposed treatment of them reflected in the Commission's March 17, 1988 order in the open season proceeding, Docket No. CP87-451, further supports consideration of Algonquin's comments in response to the DEIS in this proceeding. Thus, it is very much in the public interest that the Commission take Algonquin's comments into consideration.

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V.

The DEIS provides an inadequate analysis as the basis for its rejection of the Algonquin Alternative. For example, the DEIS states that the Algonquin Alternative represents a "significant reduction in necessary pipeline

construction, but involves a tradeoff for additional facilities." (DEIS at p. 2-188).

The difference between the facilities required by the Rhode Island Extension and the Algonquin Alternative are substantial and not in the nature a "tradeoff," a term which implies that the magnitude of impact of each proposal is equal. They are not. According to the DEIS, Tennessee would have to construct the following facilities in lieu of the 11 miles of the Rhode Island Extension: one mile of 30-inch main line loop; 3.4 miles of 12-inch loop on its Blackstone Valley delivery line; and a new 2000 h.p. compressor station near Mendon, Massachusetts. The DEIS' merely replicates Tennessee's projections as set forth in Tennessee's Responses to FERC Data Request in Docket Nos. CP87-75-000, CP87-137-000 and CP87-132-000. [2] However, the Algonquin Alternative requires only the addition of a single compressor station to provide the Ocean State service and to

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[2]Algonquin notes that Tennessee has previously provided data which has proven to be inaccurate in the area of facilities estimates, particularly with respect to costs. For instance, Tennessee recently submitted "revised" cost estimates in which it increased the cost of the 10.7 miles of 20-inch pipeline from approximately $5.5 million to $6.9 million, an increase of approximately 25 percent. See Tennessee's revised Exhibit K filed in Docket No. CP87-75-000 on February 5, 1988. Given this inaccuracy, Algonquin submits that the Tennessee's projections replicated in the DEIS have overestimated the need for additional looping of Tennessee's facilities related to the Algonquin Alternative.

maintain contracted for deliveries to Tennessee's Blackstone Valley area customers and Algonquin's customers.

Thus, it is difficult to contemplate how a 2000 h.p. compressor located on a five acre site can be dismissed as a "tradeoff" when compared to approximately 11 miles of 20-inch pipeline largely on virgin right of way. [3] The DEIS' rejection of the Algonquin Alternative is based in large part on Tennessee's projections of the need for 3.4 miles of loop on the Blackstone Valley Lateral, a projection which Algonquin believes is inaccurate. Even under conservative assumptions, Algonquin's analysis as depicted in Attachment B shows higher delivery pressures at the Pawtucket station without additional looping than Tennessee's Original Ocean State proposal. Given that Tennessee has not proposed new deliveries to Blackstone Valley customers in this proceeding, Algonquin submits that no looping of the Blackstone lateral would be necessary to provide service to Ocean State. Thus, the Algonquin Alternative would result in even more significant reductions in pipeline construction than indicated by the DEIS.

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[3] Algonquin's response to Data Request in Attachment B hereto describes two units at 1000 h.p. each for a total of 2000 h.p. to provide alternative service to Ocean State and proposed service to Providence Gas Company. Thus, if the Ocean State proposal is certificated independently, only 1000 horsepower of additional compression capacity would be required.

Even assuming certain minimal looping facilities are needed under the Algonquin Alternative, such facilities make it possible to take advantage of "previously cleared and graded right-of-way." Id. In spite of the express acknowledgement by the DEIS of this significant advantage, the DEIS inexplicably concludes that "the impact of construction under the Algonquin Alternative would be nearly indistinguishable from what would occur along the proposed route." Id. The proposed impacts under the Tennessee and Algonquin proposals are anything but indistinguishable: Tennessee's proposal requires the construction of 11 miles of new pipeline facilities which, with the exception of small sections aligned adjacent to a power line corridor, will traverse virgin right of way; the Algonquin Alternative will require minimal, if any, looping facilities on Tennessee's system plus a new compression facility on an approximate five-acre site. In comparison to the approximately 100 acres which Tennessee's proposed Rhode Island Extension will disrupt, the Algonquin Alternative, even assuming the looping facilities projected by Tennessee are necessary, will disrupt less than 20 acres of land not currently dedicated to pipeline use. This difference alone represents an 80 percent reduction in area of impact.

As a point of clarification, Algonquin notes that the 2000 h.p. compressor station listed in the DEIS at p. 2-188 is duplicative of the additional compression proposed in the Algonquin Alternative. As explained by Algonquin in its

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September 21, 1987 comments, whether constructed by Tennessee or Algonquin, this new compressor station would require no more than five acres of land in comparison to the 11 miles of virgin right-of-way which the Tennessee proposal would disrupt.

Though the DEIS attempts to justify its virtual disregard for the disruption of virgin right-of-way which the Algonquin Alternative obviates, the stated rationale falls short of reasoned analysis. For instance, the DEIS states that the 3.4 mile Blackstone loop proposed by Tennessee as part of the Algonquin Alternative would affect more residences than the proposed Tennessee route. Algonquin agrees that the Blackstone loop would cross through a residential area for approximately one-half mile, but believes, as explained above, that the loop itself is altogether unnecessary. Nonetheless, to the extant any looping is needed, the temporary impact imposed on residents from pipeline loop construction constitutes an environmental impact which would be of a short term nature and which would not outweigh the more far reaching and intrusive environmental impacts associated with the construction and permanent maintenance of 11 miles of pipeline through virgin right of way.

In another instance of attempting to minimize the advantage of sparing 11 miles of virgin right of way, the DEIS states that the "Blackstone Valley Line right-of-way is narrow and has become overgrown with vegetation." Id. Even

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assuming that this lateral is needed and that the existing right-of-way is unusually dense with newly grown vegetation, only the forested areas of the total 3.4 miles of line are, according to the DEIS, affected in this way, a distance that is substantially less than the 11 miles of virgin right of way comprising Tennessee's Rhode Island Extension.

In regard to wetlands, the DEIS states that the environmental impacts on water resources under the Algonquin Alternative "would not be significantly less" than the expected impacts under Tennessee's proposal. Id. However, as the DEIS indicates, the extent of wetland crossings under the Algonquin Alternative involves the crossing of the Peters River, a minor waterway, and other minor wetlands in comparison to the impact upon approximately nine acres of wetlands caused by Tennessee's Rhode Island Extension. Of course, as noted above, it is Algonquin's contention that the 3.4 miles of Blackstone Valley Loop is not required at all. Consequently, Algonquin's Alternative as set forth by Algonquin, has even less wetlands impact.

Finally, as further evidence of the incompleteness of the analysis contained in the DEIS, the Environmental Protection Agency recently concluded that the FERC report contains a "seriously flawed" analysis of alternative sites for the proposed power generating facility. See Attachment C.

In conclusion, Algonquin respectfully requests that its comments be accepted out-of-time and submits that the DEIS

has failed to address adequately the Algonquin Alternative which is superior in terms of efficiency and environmental consequence.

Respectfully submitted,

Richard A. Perkins /s/ RAP

Richard A. Perkins

RAP/kmc

CERTIFICATE OF SERVICE

I hereby certify that I have served a copy of the foragoing upon each party listed on the attached service list by first class mail, postage prepaid.

Dated at Boston, Massachusetts, this 17th day of May, 1988.

Richard A. Perkins /s/ RAP

Richard A. Perkins

Mr. William T. Seaver
Rt 02 RFD 255 Maple St
East Douglas, MA 01516

FEDERAL ENERGY REGULATORY COMMISSION
Office of Pipeline and Producer Regulation
Washington, D.C. 20426

Lois D. Cashell Sec:

I am writing in referance to Docket # CP87-132 and the Seaver variation 2.2.18 (V5) Page 2-172.

It would appear that the varation would help somewhat, if the Gas line has to go through my property by going on the side of the property would be much better than through the middle of same.

I have one question--Would the varation be using a part of Maple Street or would it be all on my property? If it is on my property would I be land locked by the pipeline? What I'm concerned about it, would I be able to have a driveway over the pipeline?

I want to thank this commission for all that you have done for me regarding this problem. Tennessee Gas has not given me any help at all. In fact they haven't spoken to me in some time. Again, I want to say thanks. Knowing that someone cares about the little land owner is most gratifying.

Sincerely yours,

William T. Seaver

William T. Seaver

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GIC13-1 The Staff recommends that the pipeline be placed immediately adjacent to (or within, if possible) the north side of the Maple Street right-of-way. The presence of the pipeline should not preclude construction of a driveway across it; however, Tennessee should be made aware of such plans at the time the easement is negotiated.

SUMMARY OF PUBLIC COMMENT MEETING
AND
STAFF RESPONSES

OCEAN STATE POWER PROJECT
DRAFT ENVIRONMENTAL IMPACT STATEMENT
SUMMARY OF PUBLIC COMMENT MEETING

Opening of Meeting

The Public Comment Meeting in the National Environmental Policy Act (NEPA) proceedings for the proposed Ocean State Power (OSP) project was held on April 14, 1988, in the Woonsocket, Rhode Island, City Hall. The meeting was chaired by Lonnie Lister, a representative of the Federal Energy Regulatory Commission (FERC). Mr. Lister opened the meeting by identifying the cooperating agencies: the Rhode Island Department of Environmental Management (RIDEM), the Energy Facilities Siting Board (EFSB) and the Office of Intergovernmental Relations, representing the State of Rhode Island, the Department of Environmental Quality Engineering (DEQE) and the Massachusetts Energy Facility Siting Council, representing the Commonwealth of Massachusetts; the U.S. Environmental Protection Agency (EPA), the U.S. Fish and Wildlife Service (FWS), and the U.S. Department of Energy, Economic Regulatory Administration, representing the U.S. Government, with the FERC serving as lead agency in the proceedings.

Chairman Lister noted that the meeting served as a public forum for comments on the Draft Environmental Impact Statement (DEIS) for OSP, issued March 11, 1988. Characterizing the DEIS as an initial attempt to address all the significant environmental issues associated with OSP, he said FERC hoped the meeting participants would critique the DEIS and help the agency to improve it. A summary of the oral and written comments submitted at the meeting, together with FERC Staff responses to the comments, would be included in the Final Environmental Impact Statement (FEIS).

Mr. Lister introduced the three speakers that would follow him, two representatives of the State and one for Dames & Moore, FERC's environmental consulting contractor for the OSP EIS. Mr. Lister said

that, following these statements, the meeting would be open for the presentation of comments from all interested parties.

Rhode Island Governor and Office of Intergovernmental Relations

Sandy Sullivan, Assistant Director of the Rhode Island Office of Intergovernmental Relations, presented the Governor's position on the OSP proposal. This viewpoint acknowledges a definite and strong need for new generating capacity in Rhode Island. In July of 1987 and January of 1988, the State's electricity consumption reached both summer and winter peaks that were dangerously close to exceeding the available supplies of electric power. To maintain Rhode Island's present strong economic growth, adequate and reliable electricity supplies are critical. With this background, the Governor has supported the proposed OSP project, on the strong conditions that the plant be environmentally sound and that a thorough analysis be undertaken to ascertain the effects of the plant's operation on the Towns of Burrillville and Uxbridge. The Governor requested that an EIS be conducted, and the State's regulatory proceedings have been delayed to allow preparation of the EIS to follow the NEPA process. Ms. Sullivan noted that the Public Comment Meeting, as well as the public scoping meeting in September 1987, are important parts of this process.

Rhode Island Energy Facility Siting Board

Douglas Hartley, Coordinator of the Rhode Island Energy Facility Siting Board (EFSB), identified the 500 MW OSP plant as a major energy facility requiring a license from the EFSB. He noted the Siting Board's statement that it would not arrive at a decision on the OSP proposal until the FEIS was available.

Dames & Moore

Mr. Ronald Kear of the environmental consulting firm Dames & Moore briefly reviewed the scope of the EIS, which was largely prepared by

his firm. He presented graphics showing the geographic extent of the action, with gas pipeline improvements from western New York, across Massachusetts, and into Rhode Island. At the eastern end, about 80 possible sites were identified as possible locations for the gas-fired electric generating station.

After considering each possible site in terms of available land area, access to water supplies and the electric power grid, and environmental impacts, two sites were identified that would be very suitable for a power plant. These sites were compared to the Sherman Farm Road site in Burrillville, Rhode Island, which is OSP's favored site.

Mr. Kear acknowledged the inevitable impacts that operation of the plant would have on its nearest neighbors, wherever the plant might be located. He noted that there would be greater impacts during the 2-year construction period. These would be most significant in the vicinity of the plant site, but would also extend along the natural gas, fuel oil, and cooling water pipelines. Some of these would follow city streets, and so disrupt numerous residences for brief periods. Positive impacts would include the needed electricity supplied by the plant, a major increase in the Burrillville tax base, and direct grants from the project's owners to the Towns of Burrillville and Uxbridge.

Mr. Kear noted that the DEIS had been written to address not only the major issues, but all comments and concerns submitted by people personally affected by the proposed action. The purpose of the Public Comment Meeting was to hear any additional positive or negative comments, so that these could be addressed in the final EIS.

City of Woonsocket

Chairman Lister then read a prepared statement by Charles Baldelli, Mayor of the City of Woonsocket, expressing his and the Woonsocket City Council's strong support for the OSP proposal to construct

the facility at the Sherman Farm Road site in Burrillville. Their position from the beginning of discussion on the action has been that the project holds a potential for extensive economic benefit to northern Rhode Island and south central Massachusetts. The New England region's need for power to sustain economic growth, almost regardless of cost, was given as the main reason for the City's strong support. The Mayor also noted the indirect benefits such as potential jobs for Woonsocket residents during and after construction of the generating station.

U.S. Senators from Massachusetts

The Honorable Senators Edward F. Kennedy and John F. Kerry of the Commonwealth of Massachusetts submitted a joint statement of response to the DEIS; the statement was read by Monica Conyngham of Senator Kennedy's staff.

The Senators expressed concern that data on noise impacts were insufficient. They specifically requested that background noise levels be determined at the site to assess fully whether the facility would violate the Massachusetts noise standards.

Please see the response to comment FA4-19 and the revised FEIS Section 4.1.4.2.

The Senators also expressed concern at the site selection. They asked that the FEIS fully address two issues at the Ironstone site. The unresolved water supply issue and the quantifiable impact of water quality in the Blackstone River must receive close attention before a final decision is made.

Please see the responses to comments FA4-24 and FA4-27.

With respect to the Sherman Farm Road site, the Senators noted that this site ranked higher than some others in temporary and permanent neighborhood impacts. Accordingly, and without expressing any support for the selection of this site, the Senators request that FERC adopt as permit requirements all of the mitigation measures proposed by its Staff, should the Sherman Farm Road site ultimately be selected.

Staff generally agrees with this comment, and intends to maintain its recommendation that all permit requirements be conditions for approval of the proposed action, to minimize its impacts so far as possible.

They asked that FERC take all appropriate steps to minimize the impact of the proposed OSP facility on area residents and the environment.

Town of North Smithfield, Rhode Island

Ray Connery, Vice Chairman of the North Smithfield Town Council, presented the views of Raymond C. Church, North Smithfield Town Administrator. Mr. Church and the Town Council have expressed only one concern over the proposed action, the intended route of the cooling water pipeline from the Blackstone River at Woonsocket to Burrillville. At present, this is planned to follow the right-of-way for Route 146A, one of the busiest roads in northern Rhode Island. On February 22, 1988, Mr. Carlos Riva of Ocean State Power explained the project in a public hearing before the North Smithfield Town Council. Mr. Connery at that time suggested to Mr. Riva that OSP consider following the Providence and Worcester Railroad line from the Blackstone River to Route 102. In this way, the project could avoid excavation all along South Main Street in Woonsocket as well as approximately 7 miles of Route 146A in Smithfield. Since that time, the Town Administrator has provided OSP with maps, photograph, and ownership descriptions of this route. The Town Administrator and Town Council asked, in their community's interest, that the pipeline follow the railroad right-of-way rather than Route 146A from Woonsocket to Burrillville.

Chairman Lister noted that he was not previously aware of this alternative route. He asked that copies of all documents concerning this route previously sent to OSP be submitted to FERC. He asked if this stretch of rail line was active or abandoned. Mr. Connery replied that it is active, but primarily to serve the Slatersville Industrial Park. He also stated that the North Smithfield Town Administrator would supply the documents to FERC within a week.

Staff agrees that it would be desirable to modify the routing to avoid impacts along the heavily traveled roadway, so this alternative is being given serious consideration. OSP is investigating the feasibility of making this change in alignment, but has requested that it not be a mandated condition; their reasons for this are summarized in comment GIC8-55. OSP does not believe that the impacts of constructing the pipeline along the public roadway are so severe as to be unacceptable and wishes to retain this option, among other reasons to strengthen its bargaining position in negotiating access to the right-of-way with the railroad.

Rhode Island Assembly Representative

Mr. Clinton Remington, State Representative for the district that includes Burrillville, stated his support for the OSP proposal, provided it is implemented in a way that satisfies all Federal, State, and local health, safety, and environmental guidelines and restrictions. He believes that the region needs the electric generating capacity, and the Town of Burrillville needs the tax revenue, that the proposed action will provide. A residential community, Burrillville has difficulty attracting industry. A commercial development that could generate equivalent taxes would be of a scale that would have a much more severe impact on the whole community. Mr. Remington urged FERC to make a decision as quickly as possible.

Town of Burrillville

William Flanagan, President of the Burrillville Town Council, mentioned his community's need to expand its commercial and industrial base to balance its residential character. Continued population growth has strained the services provided by the Town; new schools, roads, and various services are needed. Maintaining a quality lifestyle in Burrillville has required a significant tax increase. After extensive review, the Burrillville Town Council unanimously decided to support the proposed construction by OSP of a 500 MW, combined cycle electric generating station at the site on Sherman Farm Road. The Town has negotiated and signed an agreement with OSP that provides for the payment of more than $73 million in taxes. During the same period, OSP will provide more than $2 million in community contributions. OSP will also provide $200,000 to assist residents in the immediate vicinity of the proposed site who might suffer loss of property value. These significant tax payments and other contributions will allow the Town of Burrillville to stabilize its tax rates, to the benefit of all its residents.

The Town Council further unanimously resolved that FERC, the State of Rhode Island, and the Town Zoning Board of Review ensure that the plant be environmentally safe, and that it be built in the Town of Burrillville.

Jack Hodys

Mr. Jack Hodys, former Burrillville Planning Board member, explained how the Board modified its zoning ordinance, among other reasons, to maintain areas of open space. These open spaces were preserved, not only for the use of residents, but also so the Town could attract a project such as OSP with available land. Mr. Hodys expressed strong support for the project, which he said could stabilize the Town's tax rate without incurring the severe impacts on the rural lifestyle that a more extensive industrial development might cause. He pointed out that, in the century after 1850, Burrillville exploited its unique location along streams that served as sources for water power. At present, in his view, the Town is in a comparable situation. The numerous natural gas, electric transmission, and other utility corridors that traverse and intersect in the Town make it what someone described as the "Times Square of Utilities." Mr. Hodys called on the Town to again take advantage of its location. He expressed his hope that impacts on the project's closest neighboring residences would not be too severe, and that a means could be developed to address their needs so that everyone in Burrillville could benefit from the OSP project.

James Salome

James Salome, a North Smithfield Town Councilman, said he favored the project but also expressed his concerns for the health, safety, and welfare of the people in his Town. He was particularly concerned at the stated plans to route the cooling water pipeline along Route 146A, the busiest road in North Smithfield. Part of this alignment would cross what he described as an historical district known as Union

Please see the response to Mr. Connery on page M-6 above.

Village. He was also concerned that rescue vehicles en route to Fogarty Memorial and Woonsocket Hospitals must use Route 146A. He restated the urging of his colleague Mr. Connery, that if the OSP project is sited in the Sherman Farm Road area the owners should consider building the cooling water pipeline along the Providence and Worcester Railroad right-of-way rather than in the corridor now being contemplated. Mr. Salome said that, except for this one issue, he believed the proposed action would be good for the area, creating jobs and attracting industry.

Thomas Bentley

Thomas Bentley, an Uxbridge, Massachusetts, Selectman, noted that the EIS identified two possible sites in the Town of Uxbridge. He said one of these site might become more attractive as a result of a recent move to rezone it industrial. He also expressed the concerns of Uxbridge residents over the possibility of a power plant being built either in their town or in the adjoining Town of Burrillville, Rhode Island. Mr. Bentley noted that the Commonwealth of Massachusetts would enforce stricter requirements on a plant of this size. He said that OSP's proposed noise level of 55 dBA, or 30 dBA over the background, represented a noise increase of 1,000 times the existing sound level, and is clearly unacceptable. Because the plant would be located only a few hundred feet from the border, he asked that it be required to comply with Massachusetts standards for noise. Mr. Bentley was also concerned at the anticipated volume of construction traffic to the site along Route 98. He noted that construction of a fuel oil supply pipeline did not completely rule out truck delivery of oil to the plant. At eight trucks per hour, around the clock, he believed this would create severe impacts, and should be avoided at all costs.

Mr. Bentley asked that all of the mitigation measures recommended in the report be adopted as conditions for permitting the project. He was particularly in favor of the property buy-out for affected residents, asking that this plan be spelled out in detail in the FEIS and

More information on the zoning status of the Ironstone site is provided in comment GIC1-3 and the response to it.

Please see the responses to comments FA4-19 and GIC9-6 and the revised Section 4.1.4.2.

Based on a study by ERT (October 1987), OSP has demonstrated that traffic impacts should be minor; more information is contained in comment GIC8-12.

Staff is satisfied that truck delivery of fuel oil would only occur for brief periods under emergency conditions.

Please see the response to comment GIC3-2. As presently envisioned, the plan would compensate any property owner suffering negative effects on property values.

implemented prior to granting any permits to OSP or Tennessee Gas for the proposed action. He was concerned that this program might arbitrarily be restricted to residents whose properties immediately abut the plant site. Mr. Bentley stated that the buy-out should include all residents who have consistently expressed concerns about the project. He asked that FERC, in receiving comments, be sensitive to the issue that the project is proposed in a basically residential area. Many people in Burrillville and Uxbridge bought their property in the expectation that it would remain that way. In fairness to these people, Mr. Bentley asked that all practical mitigation be implemented, and that the residents most affected by the action be compensated for these impacts.

Rhode Island State Senator

The Rhode Island State Senator representing Burrillville, Joan Wiesner, stated that she has been aware of the OSP proposal from the beginning. As a resident on Sherman Farm Road in the general area of the proposed site, and as a commuter using Route 98 through Uxbridge daily, she would personally be affected by the proposed action. Together with the Representatives from northern Rhode Island, she steered through the General Assembly legislation that would have allowed use of the Scituate Reservoir as a backup source of cooling water. She noted that OSP had been quite responsive in developing plans for another, primary source of water. Senator Wiesner expressed her confidence that OSP would be forthcoming in meeting the expectations of the Burke Committee and any other Federal and State regulatory agencies to whose proceedings they are subject.

Noting that she had toured the Stony Brook facility, which is very similar to the proposed OSP plant, Senator Wiesner said she was impressed that the noise level around the station was minimal until one actually entered the plant. She also considered the plant itself to be very clean. Because the operation is on a fairly large scale, the plant would clearly have impacts on the site area, as would any

industrial development of similar size in a generally rural environment.

Weighing the advantages and disadvantages of the proposed action, she said she is very supportive of it, so long as all conditions raised in the public comment meeting are met. The technology to be used is already operational at several installations. She believed it would meet or exceed environmental standards in Rhode Island and Massachusetts.

Philip Anderson

Speaking as a Burrillville resident, Mr. Anderson said that he served on the Town Council at the time the Town Master Plan was developed, a 6-year undertaking. Burrillville, once a heavily industrialized settlement, suffered considerable loss of population when the textile mills closed. Some industrialization is desirable to relieve the burden on property taxpayers. As home values rose, so did tax bills. Mr. Anderson stated that he believes 85 percent, if not more, of Burrillville's residents are in favor of the proposed action.

Rhode Island Department of Environmental Management

Mr. Victor Bell, Chief of the Office of Environmental Coordination, RIDEM, pointed out that Rhode Island's environmental standards in all areas are equivalent to or greater than Massachusetts' standards, except in noise where RIDEM has no jurisdiction. He presented a current status report on all the permits under review by his agency.

The applicant (OSP) has submitted most of the documentation for a fuel oil storage and spill prevention, control, and countermeasures plan. RIDEM does not yet consider this plan complete; further work on countermeasures and mitigation is necessary.

Staff appreciates Mr. Bell's overview of OSP's permit status.

The National Pollutant Discharge Elimination System permits for non-point-source runoff are complete and approved.

The Prevention of Significant Deterioration (PSD) permit for air quality has not been obtained yet. The applicant is supplying RIDEM with supplemental data to address all concerns raised during preliminary review of the PSD permit application. OSP has attempted to demonstrate compliance with all applicable standards and required guidelines. RIDEM, however, continues to express concern over OSP's Best Available Control Technology (BACT) analysis and its proposed alternative control network. Once all these data are received, RIDEM will issue a public notice and hold a public hearing if required.

Three freshwater wetlands modification permits are required for the OSP project. The permit application for wetlands crossings for the pipelines to the plant site is virtually complete, since these crossings are all within existing roadways and the necessary alterations to the wetlands are almost insignificant. Another wetlands permit is required for the plant site. This application is incomplete and RIDEM is awaiting information.

A third wetlands permit is required for the cooling water intake structure. This must await approval of the Section 401 water quality certification, which requires documentation that the plant's water withdrawals will not have adverse effects on water quality in the Blackstone River. RIDEM has just completed its review of the latest modeling of dissolved oxygen in the river as affected by the intake structure, conducted on behalf of OSP. While a considerable improvement over previous submittals, the modeling still requires explanation and more input data. The available data and monitoring indicates that the water withdrawals may cause dissolved oxygen levels to decrease approximately 0.3 milligram per liter, an impact that must be mitigated.

With respect to the intake structure, RIDEM proposes to enter into a consent agreement with OSP, in which the company agrees to perform monitoring and modeling under the Department's supervision. These data will be used to define the impact and develop mitigation strategies; the agreement must include provisions for shutdown of the generating station if necessary. Should the available mitigation measures prove ineffective, RIDEM will require further mitigation that will include other parties, which will require additional agreements with those parties.

The plant water treatment system will require a permit. RIDEM has completed a detailed review of OSP's design for a zero discharge system, and some concerns and questions remain regarding this system.

It should be kept in mind, Mr. Bell pointed out, that the various permits he has identified address portions of the project. Even considered together, they do not look at the overall environmental impacts of the proposed action. RIDEM will also be submitting to the Rhode Island Energy Facility Siting Board an evaluation of the entire OSP project's environmental impact, based on the EIS and the detailed permit application reviews. RIDEM's general position on OSP is incomplete at this time, because numerous unanswered questions remain on a number of permit applications.

The Department believes that FERC has done a good job in analyzing the project's impacts, though more work must be done on some of the alternatives, especially water supply. Some of the analyses of alternatives—such as they dry cooling system and use of the Town of Lincoln's abandoned well field—are incomplete. Even though withdrawing Blackstone River water may be "permittable," other alternatives may be more desirable. RIDEM believes that most of the water quality impacts on the Blackstone River are mitigable, though some refinements of the analytic work are needed.

Please see response to comment SA7-5; the issue is also addressed in the response to comment FA4-5.

The dry cooling system is discussed in the response to comment SA7-8; the use of the well field is addressed in the response to comment SA7-12. The examination of alternatives is contained in the response to comment SA7-11. OSP has agreed to provide mitigation to assure that there is no depletion of dissolved oxygen in the river, though its investigations have shown that the cooling water withdrawals should cause no impacts requiring mitigation.

RIDEM also requires better identification of the fuel source for Unit 2, which the DEIS did not address. Hopefully, all the needed data will be submitted to RIDEM in the next few weeks, so that the Department will be able to complete its environmental analysis for the Energy Facility Siting Board.

Please see the response to comment FA2-2. Additional information is provided in comments by OSP (GIC8-68) and Tennessee (GIC10-14).

Ocean State Power (OSP)

Mr. Carlos Riva of Ocean State Power said that the company would limit its comments on the DEIS to the document's "regulatory sufficiency." OSP's detailed responses would be submitted in writing. Mr. Riva discussed briefly the purposes of the EIS. He noted the sections in the DEIS that reviewed the need for the electric power that the plant would produce, the alternative methods for meeting this need, and the review of alternative sites for the plant. OSP believes that the siting assessment contained in the DEIS fully meets the regulatory criterion of a rigorous and objective evaluation of siting possibilities.

The DEIS addresses a variety of alternatives for plant equipment and systems, and suggested alternatives for the backup water supply and oil and water pipeline routes. OSP is reviewing all this information and will submit its responses to it as written comments.

OSP noted the DEIS's exhaustive review of the potentially affected environmental and cultural resources, and its analysis of potential environmental consequences of building and operating the plant. OSP believes that the DEIS finds that none of the potential environmental consequences of the plant are deemed unacceptable. He briefly identified the various agencies participating in review of the EIS, and the steps it had already passed through.

Mr. Riva commented on the selection of Burrillville as the site for the proposed action. For a number of reasons, OSP remains fully committed to this as the best overall site. There is an immediate need

Staff generally agrees with these comments, although it does not necessarily endorse the characterization of the Sherman Farm Road site as the best overall site.

for new power generation in the region surrounding the site. The Sherman Farm Road property has already been a utility site for decades. A large site, it is exceptionally well positioned with respect to fuel supply and electric transmission lines able to receive the 500 MW of power the plant will produce. The Burrillville site now has strong local government support, with a mechanism available to address local concerns through the Town's zoning approval process.

Continued selection of the Sherman Farm Road site represents the fastest and surest route to obtaining the environmental, zoning, and siting approvals for a facility necessary to meet the region's energy needs. Choosing another site at this stage would significantly delay needed electric power production. OSP also believes that the regional need for power far exceeds the proposed OSP plant's 500 MW, and other good sites will also be needed for construction of additional generating facilities.

Concerned Citizens of Burrillville and Uxbridge

Ms. Donna Vorhees identified herself as a professional environmental planner, representing the Concerned Citizens of Burrillville and Uxbridge. Their review of the DEIS identified what they believe to be significant gaps in the analysis that hinder an adequate review of the proposed action relative to the alternatives discussed in the DEIS. For this reason, in its written comments the Concerned Citizens will ask for a supplemental EIS to address certain issues.

The Concerned Citizens group does not believe the DEIS gives equal consideration to all reasonable alternative locations for the project. Many parcels of land superior to the Sherman Farm Road site were eliminated on the basis of subjective criteria. In addition, the possibilities of transporting cooling water across the border from Massachusetts and the use of a dry cooling system deserve special consideration in a supplemental EIS document. It will then be possible to make reasonable comparisons of Sherman Farm Road with other sites.

Please see the response to comment GIC1-23.

Staff notes that, while some of the site evaluation criteria could be described as subjective, and many of the sites were eliminated on the basis of those criteria, the purpose for choosing these criteria was not to eliminate from consideration parcels of land superior to OSP's Sherman Farm Road site.

Please see the responses to comments FA4-25, FA4-26, and FA4-27.

The Concerned Citizens group disagrees strongly with the view that water issues are outside the EIS scope. These issues need to be addressed with respect to impacts on the Blackstone River and at the proposed project site.

Please see the response to comment GIC1-22.

The group believes that the alternatives analysis is somewhat skewed by the statement that the OSP project is "completely compatible" with land uses at the Sherman Farm Road site. The DEIS has failed to consider the Town of Burrillville's comprehensive community plan, which calls for sparse and residential uses of this area. They believe these uses more compatible with the local environment at the site.

Please see the response to comment GIC1-7 and the revised Section 4.1.6.1. More information on this issue is provided by OSP in comment GIC8-9. The Public Comment Meeting testimony of Mr. Hodys (page 7 of this summary) presents another view of this issue.

Ms. Vorhees said that the noise levels predicted at the site are not consistent with Massachusetts standards. Proximity of the site to the border encourages adherence to those standards. In this area the Concerned Citizens group asks for stronger mitigation.

Please see the response to comment FA4-19 and the revised section 4.1.4.2.

The group believes that some items from the original scope of the EIS have been omitted from the document. Specifically, flora and fauna within the Wildlife Management Areas have not been described. The Concerned Citizens organization requested in its March 1987 letter that the OSP project be considered and evaluated with reference to the (404)(b)(1) guidelines under the Clean Water Act, because wetland alterations will be necessary.

Staff believes that the biotic communities in the vicinity of the proposed site area, including the Wildlife Management Areas, have been described in sufficient detail for the purposes of the EIS.

Please see the responses to comments GIC1-11 and GIC1-12.

The Concerned Citizens' general evaluation of the DEIS is that it does not provide the basis for a complete understanding of the environmental consequences of constructing and operating the OSP project. The lack of certain pertinent information, particularly regarding cooling water availability, unjustifiably slants the analysis in favor of the preferred site. For these reasons, the group requests that a supplemental EIS be prepared.

Please see the response to comment GIC1-23 on the request for a supplemental EIS. Cooling water issues are discussed in the responses to comments FA4-25, FA4-26, and FA4-27.

David Laferriere

Mr. Laferriere identified himself as a 10-year resident of Uxbridge who believes that many questions remain concerning the project. Recent newspaper stories indicate that natural gas pipelines and compressor facilities have become contaminated with PCB's, which flow with the gas. If the Federal regulation limiting PCB's in natural gas to 50 parts per million are exceeded at the OSP facility, then it must be licensed as a hazardous waste incinerator. The DEIS does not mention any provisions to monitor PCB's in the gas used by the OSP facility. The final and supplemental EIS should address the issue of burning PCB-contaminated natural gas.

Staff has received information from OSP and Tennessee regarding the presence of PCB's in Tennessee's system. The following is a summary of that information (Tennessee Gas Pipeline Company, April 19, 1981). In 1981, at EPA's request, Tennessee Gas Pipeline Company checked its pipeline gas and compression facilities for the presence of PCB's. Although some PCB's were found in pipeline liquids at that time, apparently from interconnects with other companies, no PCB's were found in Tennessee's gas stream. The company has monitored for PCB presence since then. Currently, PCB's are either not present in elements of Tennessee's system, or are present in concentrations of less than 50 ppm in pipeline liquids. Tennessee performs quarterly monitoring of its system for PCB's, in accordance with EPA requirements. Any liquids collected at the Sherman Farm Road meter station will be analyzed for PCB's and disposed of in accordance with State and Federal regulations.

Mr. Laferriere believes that the siting issue is unresolved. He interprets the DEIS as concluding that the Sherman Farm Road site is neither the best site for the facility, nor even the second or third best. The Ironstone site in Massachusetts is rated higher, as are several others. The preferred site was chosen simply because it is a convenient decision for the utility companies. OSP has claimed that the site is a logical location for the plant because it is near a gas pipeline and an adequate cooling water source is available. In fact, new pipelines must be constructed for both natural gas and cooling water, each more than 10 miles in length.

Please see the responses to comments GIC1-6 (siting effort) and FA3-26 (evaluation of Ironstone site).

Although OSP claims that the plant has been designed to operate within strict guidelines, Mr. Laferriere believes that the entire proposed action is inconsistent with the existing zoning regulations in both Burrillville and Uxbridge. This inconsistency with community plans has not been addressed by the DEIS.

Please see the response to comment GIC1-7.

Mr. Laferriere explained that the Massachusetts Department of Environmental Quality Engineering (DEQE) noise standard for an industrial or commercial facility limits noise increases to 10 dBA over existing (L_{90}) levels. The noise study conducted for OSP was flawed because the instrumentation used for long-term measurements was

Please see the responses to comments FA4-19 and GIC1-8.

incapable of reading sound levels below 43 dBA. Night noise levels that were actually far lower were recorded as being 43 dBA, leading to an artificially high background average. To compensate for this flaw, some short-term readings were taken, but these were only for 10-minute periods and none was taken at night. Even this questionable procedure recorded background readings as low as 25 dBA, which probably would have been even lower at night. Yet OSP is designing the project to a sound level of 55 dBA at the nearest residence.

Mr. Laferriere agreed with the statement that environmental impacts should be addressed without regard for the Rhode Island-Massachusetts border. The affected citizens of the Commonwealth of Massachusetts expect that an enforceable guideline—a 10 dBA increase above existing noise levels—will be applied. Background noise studies should be repeated, to Massachusetts DEQE standards, with proper instrumentation capable of full-range noise measurements.

Since similar combined-cycle gas turbine generating plants proposed in Massachusetts are committed to satisfying noise standards of 48 dBA and lower, Mr. Laferriere asked why the OSP was allowed a 55 dBA level. He asked that additional noise suppression be designed into the turbine-generators and cooling towers. The 55 dBA level is unacceptable, constituting an increase of at least 30 dBA, or 1,000 times the background noise level, that will cross the state boundary. Massachusetts residents will be subjected to much higher noise levels than their State law permits.

Mr. Laferriere believed that the noise studies are another example of retroactive justification for the selection in advance of OSP's preferred site. If, after more comprehensive investigations for a supplemental EIS are completed, the Sherman Farm Road site is still selected, then the citizens living near the site must depend on mitigation measures to limit the impact. Construction should not begin, and no Federal permits should be granted, until OSP and Tennessee Gas Pipeline Company have agreed to a mitigative package. Both

Please see the response to comment FA4-19 and the revised Section 4.1.4.2.

The U.S. EPA, in an informational guideline, has determined that a sound energy level averaged over a 24-hour period resulting in a decibel level of L_{eq} 55 will adequately protect public health and welfare with an adequate margin of safety in outdoor areas where people spend limited amounts of time. EPA determined that an averaged day/night sound energy level (L_{dn}) of 55 dBA is a standard that should avoid interference and annoyance outdoors in residential areas, farms, and other areas where people spend widely varying amounts of time. The OSP plant would be designed to meet the 55 dBA L_{eq} standard at the property line (resulting in an L_{eq} of 47 dBA at the nearest residence). It would also be designed to meet the L_{dn} standard of 55 dBA at the nearest residence, which is consistent with past FERC practice. Staff notes that an operation noise level of 55 dBA is considered unacceptable to certain local residents. However, the Staff feels compelled to clarify some of the confusion that exists regarding noise levels. To understand the noise impacts of a proposed industrial facility, it is beneficial to understand the perceived effect on the human ear caused by a specific noise level change. The table below should be used in evaluating information on noise level impacts pertaining in this project to power plant or compressor station operational noise. Please see also Appendix E, Discussion of Noise Terminology.

Noise Change (dBA)	Effect
1	Barely perceptible
3	Threshold of noticeable difference
5	Clearly noticeable difference
10	Doubling of perceived loudness

FERC Staff refers to a letter from the Council on Environmental Quality (December 10, 1987) to the Concerned Citizens of Burrillville/Uxbridge for a summary of the jurisdictional questions regarding the OSP project. The FERC cannot prevent nor condition the construction of the power plant; the jurisdiction of the FERC extends to authorizing (and conditioning) the construction of a pipeline to service the power plant. ERA's jurisdiction is primarily limited to fuel issues under the Fuel Use Act, and thus does not issue permits for other aspects of the plant. The State of Rhode Island, through the Energy Facilities Siting Board and the Department of Environmental Management, have the primary permitting authority for the power plant.

FERC and the Economic Regulatory Administration have the authority to apply conditions to their permits, and should do so. Mr. Laferriere said that the mitigative measures described in the DEIS need to be more clearly defined.

Mitigation measures are more clearly defined in the FEIS, based on comments received on the DEIS.

Mr. Laferriere asked that OSP conduct tests on residential wells prior to construction. Artesian wells have been destroyed by construction blasting.

Please see the response to comment GIC9-14 and GIC9-15.

A buy-out plan, or similar compensation mechanism, is mentioned in the DEIS but should be described in more detail. While various parts of the document state that nearby residents will suffer a loss in property values, Mr. Laferriere said it is not clear how OSP intends to compensate for this loss.

Please see the response to comment GIC3-2.

The fact that the OSP plant will disturb the "pristine" nature of the surrounding neighborhood is illustrated by OSP's plans to relocate the Massachusetts Institute of Technology seismographic station on Mr. Laferriere's property. MIT was initially attracted to this site for the instruments because of the low noise levels in the Uxbridge-Burrillville area. OSP has already agreed to pay MIT for the relocation of the seismograph facility a half mile from the proposed site, an acknowledgement of how much the proposed action will change the characteristics of the neighborhood.

The Staff's opinion is that seismographic instrumentation, by design, is so sensitive to vibrations of any type that the relocation of the facility is a reasonable mitigation measure. Staff does not believe it valid to conclude from this that major impacts will occur in the vicinity of the proposed plant.

OSP appears to have no difficulty moving quickly to compensate MIT, but appears to ignore totally the citizens who must live near the proposed facility, said Mr. Laferriere. He contrasted this with the example set by Applied Energy Systems, which proposed to construct a similar facility in Woonsocket. One of that company's first actions was to offer compensation to residents. He said that among OSP's first actions were to speak of a benign facility, to question the need for an EIS, and to try to buy its way into the Burrillville-Uxbridge area with questionable cash donations to the Town governments. He claimed these grants are clearly intended to influence Town officials.

Staff does not agree that OSP is totally ignoring the citizens living near the proposed facility; please see the response to comment GIC3-2. Staff does not concur with the characterization of the tax treaty and grant agreements between the Town of Burrillville and OSP as "questionable." They are a reasonable and normal part of the process of negotiating the development of the facility within a specific jurisdiction.

By constructing a facility of this magnitude in a residential area, according to Mr. Laferriere, OSP is placing a burden on the nearby residents that cannot be justified, since alternative sites are available that are rated higher than the preferred site. These alternatives should be studied further in a supplemental EIS. The siting study prepared with the DEIS is based in part on outdated and inaccurate information.

Mr. Laferriere characterized the proposed 100-foot minimum undisturbed vegetative buffer zone to be left around the perimeter of the plant as inadequate for the scale of the facility. He believes that this buffer's size should be increased substantially.

Mr. Laferriere concluded by stating that the neighboring citizens, having studied the OSP proposal, were in a position to condemn it. While the company speaks of a clean, natural-gas-fired facility, it never mentions the 5 million gallons of fuel oil stored onsite or the related problems of resupplying this by truck or pipeline. He accused OSP of maintaining a double standard in its actions, with one standard for responding to the concerns of politicians and MIT, and another, no-action standard for dealing with citizens. He also pointed out that, since OSP believed an EIS unnecessary, if the company had had its way there would be no Public Comment Meeting.

Please see the responses to comments FA3-26 and GIC3-1. It is important to note that NEPA and implementing regulations require exploration of the alternatives to an action, but do not specifically require choosing the alternative with the least environmental impact. OSP's opinion on this issue is summarized in comment GIC8-21.

Please see the response to comment GIC9-1. OSP has stated that it will retain the maximum width buffer that is practical, which will in some directions considerably exceed 100 feet (comment GIC8-47).

Staff believes that OSP has been generally responsive to the concerns of all affected parties, though naturally from the perspective of its own interests. Staff notes that onsite storage of 5 million gallons of fuel at the OSP plant would not be atypical for a facility of the type and size proposed. The plans for this storage have been described in the DEIS and other public documents. If use of oil as a backup fuel is required, pipeline resupply is straightforward. Truck delivery of large quantities of fuel oil is not being actively considered by OSP.

Wayne Saravara

Mr. Saravara complimented FERC on the effort expended to produce the DEIS, which can serve as a foundation for working out problems. He said that when he and his wife first occupied their property on Douglas Pike, they were the only residents of the immediate area. After initially purchasing 12 acres, the couple has put all its savings into buying up adjacent land. They now own 52 acres, with 1,300 feet of road frontage for the 38 acres on which their house is located and 258

feet of frontage for the 14 acres they own on the opposite side of the road.

The Saravara's main concern has been the routing of the Tennessee Gas pipeline. At the very early stages of the proposal, Tennessee did not indicate that it would be necessary to cross the Saravara property. However, Mr. Saravara said that moments before the public comment meeting on the scope of the EIS, Tennessee submitted a modified proposal, to cross directly behind his house and bisect his property with the pipeline right-of-way.

Mr. Saravara quoted a letter that he submitted to FERC, describing the area around his house as being transformed into a "wagon wheel," with the OSP site being the hub. There are already a 300-foot-wide Boston Edison transmission line corridor, a 150-foot Algonquin Gas Transmission pipeline corridor, and a 50-foot AT&T cable right-of-way, all between 5 and 400 feet from the Saravara house. The proposed Tennessee Gas Transmission Company pipeline would parallel Douglas Pike, at about 150 to 300 feet from the road, through the Saravara property. He believed that this additional right-of-way would seriously impact his ability to continue residential-agricultural development of his property.

Mr. Saravara further quoted his letter to FERC on the impact that routing decisions can have on properties in which small landowners have invested their life savings. Eminent domain rights enable corporations and governments to ignore individuals' plans for their land. He asked that companies send representatives ahead of their surveying teams who can learn and understand landowners' concerns.

After he requested an alternative routing of the pipeline, it appeared that Tennessee began to cooperate with Mr. Saravara. He said that he walked the suggested route with two of the pipeline company's employees. He made it clear that he does not want the pipeline routed through his property. However, if the routing is inevitable, he wants

Please see the response to comment GIC9-1.

a corridor that has the minimal impact on his land and his plans for it. The company employees flagged the route he suggested, and Mr. Saravara believed Tennessee had accepted the new route. However, when one of the company's employees returned with the document Mr. Saravara was to sign to release easement rights, it described a traverse of his property different from the one he had walked with the Tennessee representatives. Mr. Saravara refused to sign the document. The company's survey team flagged the route, though the representative agreed that it differed from the one that had been agreed upon. Mr. Saravara insisted that the route be resurveyed, which the company agreed to do in March. However, nothing has happened in this matter; Mr. Saravara was informed at the Public Comment Meeting that the pipeline company's representative he had been dealing with no longer had responsibility for the situation. He has asked FERC to address the issue, but has received no positive indication that the route would be changed as he requested.

Please see the responses to comments GIC9-2 and GIC9-4 and the revised Figure 2.1-6. The position of the applicant is summarized in comments GIC8-11 and GIC8-34.

Mr. Saravara said that the DEIS does not mention the alternative route across the Saravara property, though there are responses to other landowners' concerns. Tennessee has obtained eminent domain rights to survey a route through his property. The DEIS does mention Mr. Saravara by name, to note the various utility corridors crossing his property, but does not describe the reasonable alternative to a portion of the route that he proposed. Mr. Saravara took a copy of a plan view of his property and a pair of scissors. He demonstrated his situation and his frustration by cutting through the copy, first removing a corner along the Algonquin corridor. He cut along the AT&T cable right-of-way and the Boston Edison transmission line. He then cut along the originally proposed Tennessee Gas transmission route, which he believes is still the intended corridor. The remaining scrap of paper represents to Mr. Saravara the usable portion of his property, and an illustration of how adversely he is being affected.

Mr. Saravara requested a supplemental EIS to address both the route change through his land and the economic impact of the gas

Please see the response to comment GIC1-23.

pipeline corridor. He requested that the pipeline share the Boston Edison right-of-way, not that it parallel it. Boston Edison has already sent letters to property owners abutting on its transmission line right-of-way, announcing its intentions if the OSP plant is built. On Mr. Saravara's land, the utility plans to clear-cut an additional 150 feet beyond the 200-foot wide swath that is already cleared, affecting land neighboring, and visible from, Mr. Saravara's. He believes he did everything possible to prevent this clear-cutting. He wrote Boston Edison offering to buy the land or the trees; they replied that the land was not for sale. While he was trying to prevent the clear-cutting, and FERC appeared to be supporting his position, the trees were cut.

Please see the responses to comments GIC-2 and GIC9-4 and the revised Figure 2.1-6. The position of the applicant is summarized in comments GIC8-11 and GIC8-34.

Mr. Saravara noted the agreement by OSP to use noise-suppression devices to limit the noise levels to 55 dBA at the nearest residences, whereas elsewhere they said they would limit noise to this standard at the property line. He displayed a photograph of himself on his property that illustrated how near he is to the proposed site and to the state boundary, and the extent that the clear cutting has removed trees that would have served as visual and sound barriers.

Please see the response to comment GIC9-6.

Mr. Saravara objected to wording in the DEIS indicating that OSP would control and set its own standards on the visual impact of the plant's night lighting. He asked that this standard be formally detailed as a mitigative measure, and that the methods to be used should be stated. He does not believe that this can be left to OSP.

Please see the response to comment GIC9-7.

Mr. Saravara and his wife are very interested in the details of a buy-out scheme. They had hoped to subdivide their 1,300-foot frontage along Douglas Pike into house lots. They now believe that a sensible buy-out mechanism is the only way they will be able to recover their investment in the land. Mr. Saravara asked that the buy-out program be approved and in place before any permits are granted for the OSP project. He noted that the buy-out plan (or comparable compensation mechanism) is to be developed by OSP and must be acceptable to the

Please see the response to comment GIC3-2.

EFSB, the Burrillville and Uxbridge Town Councils, and the affected landowners. Mr. Saravara believed that it would be very difficult for the Town Councils not to be affected by the money grants they would receive from OSP.

Mr. Saravara noted that Tennessee Gas intends to test wells of neighboring landowners within 200 feet of any blasting along the pipeline corridors it would build. Mr. Saravara quoted the DEIS statement that the average yield of bedrock wells in the Blackstone River basin is 8 gallons per minute. His own well, a rare one for the area, produces 60 gallons per minute. He stated that he would like to keep it, adding that his well casing only extends 5 feet down.

Please see the response to comment GIC9-15.

Mr. Saravara argued that, prior to blasting, a thorough analysis of affected properties should be carried out. Rather than examine only wells, it must include building foundations and the general geologic structures underlying the properties. He asked that the scheme for compensating landowners for blasting damages be clarified in advance, so that landowners will not end up in court litigating matters.

Please see the response to comment GIC9-14; the Public Comment Meeting testimony of Mr. Huguenin (page M-46) is also relevant.

Mr. Saravara objected to the 100-foot vegetated buffer proposed to screen the plant from its surroundings. Mentioning his prior service on the Town Planning Board, he noted that a 100-foot buffer is required for a condominium complex and is totally inadequate for a 500 MW electric generating plant. Using a measuring tape, he showed the diagonal length of the room in which the meeting was held to be 71 feet. Since forests in the area are mature, trees stand 20 to 25 feet apart and the undergrowth is minimal. These factors limit the forest's capability to screen visually and attenuate noise. Mr. Saravara recommended a 200-foot vegetated buffer.

Please see the response to comment GIC9-8.

Mr. Saravara said that Tennessee Gas Pipeline's Environmental Report indicated that the pipeline could be abandoned in accordance with the U.S. Department of Transportation regulations and other appropriate Federal and state codes; all inactive rights of way would

Please see the response to comment GIC9-10.

be allowed to return to their natural conditions. He asked that the FERC documents should address a release-upon-abandonment of the pipeline if it were no longer needed to transport natural gas. Too many abandoned railroads and other corridors interfere with land development in the area, and another one does not need to be added. Mr. Saravara was disappointed to see the DEIS mention that the pipeline could be made available to house other activities and possibly to transport other materials. Since the original permits and easements were to pipe natural gas, it is unacceptable to him as a landowner that the structure could be used to transfer other, possibly hazardous materials. Mr. Saravara stated that the document Tennessee wanted him to sign asked for a permit to transport anything that will move in a pipe. He said that he is not prepared to permit this. He asked that FERC address the issue—release upon abandonment and reversion to natural state—in a supplemental EIS.

Please see the response to comment GIC9-11.

Mr. Saravara concluded by addressing the water vapor plume predicted to extend from the cooling tower array. He believes this plume will adversely affect neighboring property owners, particularly along Douglas Pike. He asked that the phenomenon be thoroughly studied and a mechanism for compensating affected landowners be developed in advance, before construction begins on the project.

Please see the response to comment GIC4-2 on the effects of the cooling tower plume; please see the response to comment GIC3-2 for details of the compensation plan.

Robert Pitts

Mr. Pitts identified himself as the owner of the horse-breeding operation identified in the DEIS as being one-half mile from the proposed site. He explained that his property borders on the site, and so is much closer than stated. He objected to the use of observations of horses next to an airfield as being an invalid model for horses next to a power plant. He also objected to the choice of words "no evidence of increased health problems," and other words such as "expected," "possible," "maybe," "not expected." In response he posed his own phrase, "what if?"

Staff has not found reason to believe that the OSP plant will have negative effects on Mr. Pitts' business. Please see also comment GIC8-45 and the Staff's response.

Mr. Pitts believes he will definitely be affected by the proposed action. He does not believe OSP will communicate or document any information reflecting negatively on its proposal.

Chairman Lister responded, stating that any negative information or impacts that might be found would definitely be included in the EIS, as this is the major purpose of the document.

John Muratory

Identifying himself as an engineer, Mr. Muratory questioned information in the DEIS on the zero water discharge system for the proposed OSP facility, specifically possible low-quality water discharges if the zero discharge elements of the design prove unworkable. He asked, first, if this implies that these elements are in fact unworkable. He then asked if a quantitative analysis has been conducted to determine the possible daily discharge of low-quality water. A 99 percent effective system would discharge 44,000 gallons per day. He asked if it is possible to project the mitigation strategy to prevent or reduce the effects of an undetermined quantity of low quality water. Considering that all houses in the surrounding area obtain their water supplies from wells, he asked for an assessment of the consequences of that discharge. He questioned whether the issue of possible ground water contamination has been adequately addressed in the DEIS.

Mr. Muratory asked if OSP will be responsible for long-term implementation of the mitigative measures recommended by the DEIS. If so, he asked what the company's obligations will be with respect to short- and long-term effects not predicted by the EIS. While he believes the DEIS to be a good report, representing considerable work, it is logical to assume that it may not have examined all possible effects of activities that have not taken place. Mr. Muratory is concerned that nearby residents will suffer detriment from these effects unaided by the types of prior mitigation agreements that have been developed for known impacts of the proposed action.

Staff believes it now has enough information to render a judgement that the zero discharge elements of the water treatment system are in fact workable. Please see also the response to comment FA4-5.

Please see the responses to comments FA4-33 and FA4-10.

Mr. Muratory noted that the long-term sound measurements were recorded with equipment that is unable to detect sounds below 43 or 44 dBA. He pointed out that 54 percent of the readings over a period of 24 hours were at or below the threshold, including 42 percent of the readings from noon to 11:00 pm. Because so many values are probably well below the machine's minimal threshold, Mr. Muratory concluded that the only valid use of the data would be to prove that noise levels are higher in the daytime than at night.

Please see the response to comment FA4-19.

Quoting from Measuring Sound Guidelines, a manual published by Bruel & Kjaer (an acoustic measuring equipment manufacturer), he noted that short-term sound measurements require a wind screen whenever there is a noticeable breeze. He said the DEIS did not mention wind conditions or the use of a wind screen, so he obtained average wind speed data for the appropriate dates from the National Oceanographic and Atmospheric Administration (NOAA) office in Worcester, Massachusetts, as follows:

Please see the response to comment SA7-22.

Date	Average Wind Speed (mph)
12/4/86	15.0
12/6/86	11.5
2/6/87	7.7
2/7/87	8.9
2/10/87	20.5

He also learned from NOAA that the average wind speed in the area is 10 mph.

Comparing this information with the Vanasse Hangen Brustlin, Inc., data, Mr. Muratory noted that wind conditions on February 6 and 7, 1987, were close to average. He sees an 8 to 10 dBA increase in readings taken on December 4 and 6, 1986, and February 10, 1987--days when he interprets wind speeds as being above average for the area.

Mr. Muratory noted inconsistencies between sound measurement data (Table 3) in the report and the data sheets presented in Appendix B. Readings for December 4 and February 6 were listed in Table 3 as being recorded from 9:42 to 9:53 am, while the data sheets give as the time 3:44 to 3:54 pm. The minimum dBA reading reported in Table 3 is 38, while the lowest reading on the data sheet is 30. The higher value was used in the averaging to develop the baseline. Similarly, the L_{50} value was 6 dBA higher in Table 3, the L_{10} increased by 8 dBA, and L_{eq} was 13 dBA higher. The maximum reading in the table was 11 dBA higher than the data sheet.

Please see the response to comment GIC1-27.

Mr. Muratory noted similar inconsistencies in the data recorded at Station 2. Table 3 identifies the time of measurement as from 10:03 to 10:13 am; the Appendix B data sheet gives 4:23 to 4:33 pm. Station 3, for the same day, has times listed in Table 3 from 10:24 to 10:34 am; the data sheet lists 4:08 to 4:18 pm. Station 3 exhibits major inconsistencies between the Table 3 information and that listed in the data sheets. The minimum sound level reported in the table is 37; the minimum on the data sheets is 29. The L_{10} on Table 3 is 57 dBA; on the data sheet it is 39.

Mr. Muratory believes that the possibility of wind interference in the measurements taken by Vanasse Hangen Brustlin, together with the inconsistencies in the noise level data presented in the DEIS, indicate that a new baseline ambient noise study must be undertaken. He recommended that RIDEM and the Massachusetts DEQE monitor this new investigation.

Please see the response to comment SA7-22.

Mr. Muratory had borrowed professional sound measurement equipment (GenRad Model GR 1988 Integrating Sound-level Meter and Analyzer) from his employer (GTE) and conducted a few measurements of his own in his front yard on Aldrich Street, Route 98. He noticed that 11 of the 21 noise monitoring stations used by Vanasse Hangen Brustlin were at the edge of pavement or at a roadside. He questioned the applicability of

Please see the response to comment GIC1-29.

these measurements in determining the sound level baseline at residences near the proposed site, since most houses in the area are an average of about 100 feet from the road.

Mr. Muratory conducted his measurements on Sunday, April 7, 1988. He did not use a wind screen, and he believed that this made his work comparable to that of Vanasse Hangen Brustlin. The wind speed averaged 14.0 mph. Measurements at the roadside yielded an L_{eq} of 53 dBA and a maximum sound level of 88 dBA. He did not report the time or duration of this measurement, but stated that 12 cars passed during this time.

Mr. Muratory then moved the sound meter 50 feet from the road. At this position, the L_{eq} dropped by 10 dBA. During this measurement, 14 cars passed. Moving the equipment to 100 feet from the road, he found no noticeable effect on the L_{eq} or maximum sound levels. He repeated his interpretation, that sound measurements taken at roadsides are not valid indicators of ambient conditions at houses along the roads.

Mr. Muratory believes that the L_{90}, the sound level exceeded 90 percent of the time, provides the most useful information on environmental quality. This is the criterion used by the Massachusetts DEQE for determining ambient sound levels in a residential environment. L_{90} values have not been included in the DEIS; he reminded the meeting that L_{90} values will be significantly lower than L_{10} levels.

Linda Aitken

Mrs. Aitken identified herself as a resident of Uxbridge, living on Douglas Pike, who has been concerned about the OSP proposal for 2 years. She believes that review of the DEIS has shown inadequacies in the areas of siting, noise, traffic, pipeline routes, lighting, the public address system, wetlands, hazardous wastes, PCB's, conformance to the comprehensive plan, necessary permits, and mitigation. To correct these inadequacies, she asked for preparation of a supplemental

Please see the response to comment GIC1-23 on the question of the need for a supplemental EIS. Please see the responses to comments GIC1-6, FA3-26, and GIC3-1 on the question of whether other sites are superior to the Sherman Farm Road property. Staff believes that Mrs. Aitken has not demonstrated that the document supports her opinion that the Sherman Farm Road site is a poor choice. All the issues that she raises have been responded to elsewhere in this document, as all have been contained within other comments.

EIS. In contrast to the DEIS's conclusion, the site study indicates to her that other sites are far superior to the one on Sherman Farm Road.

Residents have all along stated that the proposed site represents a location of convenience for the OSP owners and is a poor environmental choice, according to Mrs. Aitken. She listed several areas in which the DEIS appears to agree with these viewpoints.

On page 2-87, the document states that, under the land use compatibility criterion, the ideal location for a power plant is in the midst of heavy industry. The least desirable location is one in which such factors as noise conditions and air emissions are out of character with the surrounding area, which she claimed is certainly the case in the Burrillville/Uxbridge area. Also with regard to land use compatibility, on page 2-49 the DEIS states that residents place high values on quiet, low congestion, and the absence of visual stimulation. Also on page 2-49, it states that an undesirable location would be one where significant local traffic exists and the traffic associated with the plant would quickly exceed the capacity of local roads. Also under land use, on page 4-51 the DEIS states that the power plant could be considered inconsistent with the environment surrounding the Sherman Farm Road site.

On page ES-1, the DEIS states that the plant, if built at the Sherman Farm Road site, would have significant effects on water uses, local land use, and protected wetlands. On page ES-2, it states that noise and traffic during construction would have significant effects on surrounding rural residential neighborhoods. On page D-70, the DEIS states that construction noise would be most noticeable to residents along Sherman Farm Road because of the area's rural nature.

On page D-73, the DEIS states that impacts on neighborhood residences are more significant at Sherman Farm Road than at the two alternative sites. On page 2-104, the report concludes that impacts on

residential property values would be most significant at the Sherman Farm Road site, which has the largest number of nearby residences.

Mr. Aitken noted that, on page 2-98, the DEIS states that during construction noise will decrease the quality of life around the Sherman Farm Road site. At this site, traffic and visibility will negatively impact the quality of life. Property values are likely to decrease around the Sherman Farm Road site. All these factors will decrease and negatively impact the quality of life of residents around the Sherman Farm Road site, while reducing the value of their properties. This is not the case at the Ironstone and Bryant College sites.

Mrs. Aitken noted that, on page 5-2, the DEIS states that OSP's preferred site is not environmentally superior to the other sites identified. She pointed out that the Rhode Island Energy Facility Siting Act contains a Declaration of Policy, Section 42-97-2, stating that energy shall be produced at the least possible cost to the consumer, consistent with the objective of assuring that the construction, operation, and decommissioning of the facility shall produce the fewest adverse effects on the quality of the State's environment. Mrs. Aitken believes that developing the Sherman Farm Road site as proposed would not meet these policy criteria, while use of other sites would do so.

Please note, as stated in response to Mr. Laferriere's testimony (page M-20 of this meeting summary), that NEPA does not require that decisionmakers choose the alternative with the least environmental impact. However, Mrs. Aitken is correct in stating that the Rhode Island Energy Facility Siting Act includes a Declaration of Policy (42-98-2) that "...construction, operation and decommissioning of the facility shall produce the fewest possible adverse effects on the quality of the State's environment..." Interpretation of this policy with respect to the final siting decision on the OSP facility will be the responsibility of the Energy Facility Siting Board, which has delayed action until the FEIS is available.

Mrs. Aitken said that other sites are industrial in character, including the Branch River Industrial Park, Highland Industrial Park, I-295 Industrial Park, Ironstone, and Stoneybrook sites. She requested that a supplemental EIS be prepared that examines these sites in terms of costs, compatibility with local land use, and impact on the surrounding areas. The supplemental EIS should not assume a preferred site, but truly choose the best site.

Please see the response to comment GIC1-23.

Mrs. Aitken requested that the minimum land area requirement for the plant be closely investigated. She characterized the 40-acre minimum size as arbitrarily established by OSP to eliminate many sites.

Please see the response to comment SA7-7.

Other power plants are being built on smaller sites, such as the coal-fired facility being built on 11 acres in Bellingham, Massachusetts.

Mrs. Aitken asked that industrial areas be given preference in selecting a site, with residential areas to be examined only as a last resort.

A careful reading of Appendix D demonstrates that industrial areas were in fact given preference in the siting analysis. Such areas were assigned a positive weighting for the land use issue, while residential areas were negatively weighted.

Mrs. Aitken characterized the noise analyses in the DEIS as extremely inadequate. With a lower measurement threshold of 43 of 44 dBA, the equipment used for the long-term observations was incapable of actually measuring the ambient sound levels. Short-term measurements, though performed only during the day, recorded ambient levels as low as 25 dBA. A new baseline study of noise is required because of these problems.

Please see the responses to comments FA4-19 and SA7-21.

Because it was agreed at the scoping meeting that the EIS would address impacts without regard for the Massachusetts-Rhode Island border, Mrs. Aitken said FERC should adhere to the more stringent enforceable guidelines from either state. With respect to noise, this means that the Massachusetts standard for residential areas—no more than a 10 dBA increase at the site property line—must be applied. OSP should therefore be restricted to producing no more than 35 dBA at the property lines.

Please see the response to comment GIC9-6 and the revised Section 4.1.4.2.

Mrs. Aitken noted the statements in the DEIS that 5 million gallons of fuel oil would be stored onsite (page 2-38), that an oil pipeline would be constructed to fill the tanks (page 2-46), and that more than 100 tank trucks per day (8 per hour in daylight) would be needed to fuel the plant without the pipeline (page 2-13). She stated that the possibility of this amount of truck traffic is unacceptable to residents living along Route 98. Mrs. Aitken requested that a supplemental EIS address the issue of fuel oil deliveries, and that mitigation measures include a prohibition of truck deliveries. Noting that one of the mitigation measures restricts construction activities to the hours between 7:00 am and 5:00 pm, she pointed out that there are no

Staff is satisfied that truck delivery of fuel oil, if it occurs, would be conducted only for very short periods of time under emergency conditions. Normal fuel oil resupply would be by pipeline.

OSP has stated that night deliveries of equipment and materials would occur only as unusual and infrequent events, and that there are no current plans for weekend work or any construction activities outside the stated working hours.

such time-of-day restrictions on deliveries to the plant or start-up of equipment. She asked that evening and weekend work be completely prohibited.

Please see the response to comment GIC9-15.

Mrs. Aitken noted Tennessee's commitment to inspect residents' wells and to replace any wells damaged or destroyed by blasting (page 4-54). She pointed out that no such commitment on the part of OSP appears in the DEIS.

Mrs. Aitken stated that the issues of the plant's lighting and public address system have not been addressed adequately in the DEIS. She stated that loudspeakers would be unacceptable to local residents.

Please see the response to comment GIC9-7 on the issue of night lighting. Other than in emergencies, the public address system would be subject to the overall standard limiting all noise sources in the OSP plant to an equivalent and a day-night level of 55 dBA.

Mrs. Aitken claimed that the Town of Burrillville, in response to the offers of cash payments, is committed to totally changing the character of the Sherman Farm Road site area, at the expense of its residents. This is particularly disturbing to Massachusetts residents, who are severely affected by the Town of Burrillville's lack of adherence to zoning principles. She asked that FERC, as lead agency, assure that all mitigation measures are enforced and followed. She requested that no permits be granted until all issues have been resolved and all mechanisms for implementing mitigation are in place, including the buy-out program. There should be an environmental monitoring program that includes traffic noise, cooling tower drift deposition, and ground level visibility problems from the plume. The designation of who will carry out the monitoring and what authority they will have to enforce standards must be spelled out.

Please see the response to comment GIC1-7.

Please see the response to comment FA4-33 on the implementation of mitigation measures. RIDEM will have the primary responsibility for ensuring that all mitigation measures are implemented; the FERC has no authority to do this. Most of the permits for the plant will have requirements for environmental monitoring associated with their conditions; again, RIDEM will have the authority to supervise and approve these activities. The Department will also decide which environmental media and issues require monitoring programs.

Tennessee Gas Pipeline Company

Mr. H.E. DeGrenia identified himself as a representative of Tennessee Gas Pipeline Company. He said that his company has been doing business in New England for 37 years, delivering natural gas to 25 customer companies. Mr. DeGrenia claimed that his company has always conducted its operations in a safe and secure manner. Since

1981, the company has built some 145 miles of new pipelines in New England, under severe environmental restrictions and while minimizing disturbances to the public.

Briefly, Mr. DeGrenia described Tennessee's role in the OSP project. To serve the proposed power plant, the company will need to build about 36 miles of new pipeline, about 25 of those miles paralleling Tennessee's existing system in New York and Massachusetts. A "virgin" line of smaller (20-inch-diameter) pipe will be built from Worcester, Massachusetts, to the Rhode Island line, a distance of 10 miles. Based on his company's record, and on the information in the DEIS, he believed this work can be completed in an environmentally sound manner.

Mr. DeGrenia characterized Mr. Saravara's testimony as very well prepared, and stated that if he owned his property, he would feel the same way as Mr. Saravara. He noted that all of the speakers were well prepared, and no one lost his temper. But he stated that there was a greater need at stake than individual interests; extremely difficult decisions need to be made.

Mr. DeGrenia concluded that he believed Tennessee can build a pipeline to serve the OSP facility that will be safe, dependable, and hopefully will minimize the impact on the public at large. He recognized that the company could not possibly satisfy the specific problems of all individuals concerned with the project.

Blackstone Valley Electric Company

Mr. David Gulvin, a representative of the Blackstone Valley Electric Company (a wholly owned subsidiary of Electric Utility Associates), called attention to the passage in the DEIS that notes New England's growing economy has driven up the consumption of electricity. Demand for electricity has increased in New England at an average annual rate of 4.3 percent since 1982. Since 1972, New England's

electricity consumption has increased about 50 percent. The region's electricity demand growth rate is two-and-one-half times the national growth rate.

Within the Electric Utility Associates' service area, southeastern Massachusetts and northern Rhode Island, growth has been equally dramatic. In the past 5 years, the number of commercial customers has increased by 18.9 percent, while sales to this sector have increased by 28 percent.

Peak demand in New England increased nearly 25 percent in the 6 years from 1982 to January 1988. New England's winter peak consumption in January 1987 was approximately 17,500 MW. This year, the winter peak was on January 14, 1988; demand reached 19,310 MW. This is a 10.2 percent growth in only 1 year; the level of the 1988 peak was not projected to be reached until the winter of 1993-1994. Without the emergency demand reduction measures that were taken on January 14, it is estimated that New England's peak demand would have been approximately 19,800 MW. This magnitude of peak demand was not projected to occur until 1995-1996.

In Rhode Island in 1987, the Blackstone Valley Electric Company experienced a 51 percent increase in new residential service connections over 1986. Growth in the State's electricity consumption was nearly 50 percent above the national average. Most of the needed electricity came from out of State; Rhode Island presently imports about 90 percent of its electric power. The Providence Journal recently noted that no new electric generating stations have been built in Rhode Island in the past 4 years. In its study for the Rhode Island Public Utilities Commission and the Governor's Office of Energy Assistance, the Energy Research Group pointed out that, even with OSP's unit number 1 on line in 1990, Rhode Island will produce only 30 percent of the power used within the State.

Mr. Gulvin called attention to the statement in the DEIS that a delay in building OSP would result in a loss of a 6.5 percent development tax credit over a period of 20 years. He said that this credit would save Rhode Island consumers about $30 million.

Mr. Gulvin said that failure to built the plant as planned would result in a substantial loss of employment in the Town of Burrillville and surrounding communities.

Mr. Gulvin stated that the availability of the transmission line was one of the reasons for selection of the proposed site. A single mile of new transmission line requires about 30 acres of land; expanding an existing transmission line requires about 24 acres per mile. At the proposed Sherman Farm Road site, because the plant would be built adjacent to an existing switching station and transmission line, no new transmission line construction would be necessary. The power generated could be fed directly into the 345 kV power grid.

Mr. Gulvin said that Blackstone Valley is the owner of the Sherman Farm Road site. He said he believes his company has been a responsible corporate citizen in the towns it serves. The company believes that use of the proposed site for the OSP project will prove to benefit the citizens of Rhode Island, as well as the majority of citizens of Burrillville.

Mr. Gulvin noted that his company runs a variety of community outreach programs in eduction and public safety. He cited these to demonstrate Blackstone Valley's concern about the quality of life in northern Rhode Island. The company cannot pick up stakes and leave town; its future is inextricably tied to the social and economic structure of the Blackstone Valley. The utility is committed to serving its customers. However, it will need to be able to purchase the power to be produced by the OSP plant if it is to continue to meet this commitment.

Aime Arsenault

Mr. Arsenault noted his satisfaction at the statements in the DEIS indicating that the power to be produced by the OSP units is needed. He said that the Rhode Island Energy Facility Siting Board reached the same conclusion some months ago. Since then, the region has moved closer in time to a period when power shortages become a possibility.

In January 1988, Mr. Arsenault said that the New England Power Pool (NEPOOL) hit a record peak load of more than 19,000 MW. A load of that magnitude had not been anticipated until the winter of 1993-1994. Rhode Island experienced a peak of more than 1,000 MW; he added that there are only 250 MW of generating capacity within the State.

Past projections of the power supply situation have assumed that the Seabrook nuclear plant would be on line. Seabrook is now completed without an operating license. Under the present scenario, the Governor's Conference Report predicts serious capacity deficiencies in the early 1990's.

Despite Rhode Island's accelerating efforts in load management and conservation, loads continue to grow. Over the past 2 years, demand growth in the State has been about 5 percent; for the first 3 months of this year it has been higher than 5 percent. Mr. Arsenault claimed that the need for OSP to be available quickly becomes more pronounced every day.

Given the acute need for OSP's addition to New England's generating capacity, Mr. Arsenault noted that the DEIS indicates the Sherman Farm Road site and the highest-ranked alternatives cannot easily be distinguished on the basis of environmental impacts. Moving the proposed action to an alternative location would require that the time-consuming licensing process begin virtually all over again. The proceedings to permit building new transmission lines alone could add

years of delay. He said that the opportunity to avoid this problem is a unique advantage of the Sherman Farm Road site.

If the availability of OSP's generation is delayed, Mr. Arsenault said that New England electricity supply situation in the early 1990's would become even more precarious than it already is. The DEIS indicates, he concluded, that no site has environmental advantages sufficient to justify the increased eventual costs to consumers due to an extended delay and the waste of all the work already expended on the Sherman Farm Road site.

Mr. Capistron

Mr. Capistron identified himself as a Town of Burrillville resident who wished to voice his support for the proposed OSP plant. He stated he belief that the project can do the Town a lot of good, though it seems some environmental questions remain to be addressed. Mr. Capistron expressed his gratitude to Chairman Lister for the amount of time he and the FERC Staff have devoted to the project, which is evident in the DEIS document.

Staff thanks Mr. Capistron for his comment.

Audubon Society of Rhode Island

Zechariah Chafee. Mr. Chafee introduced himself as the first of three Audubon Society members who would speak on three different sets of issues; his concern was water resources. The Society believes that the DEIS does not adequately address the possibility the proposed OSP facility could withdraw 4.4 million gallons per day (mgd) from the Scituate Reservoir system. In addition, the draft states (page ES-3) that the primary OSP issue to be resolved is the nature and extent of the restrictions RIDEM would place on the facility's water withdrawals from the Blackstone River. Mr. Chafee stated that RIDEM now has issued such restrictions. Since OSP previously stated that it would accept the Blackstone River as the cooling water source only if there are no restrictions on the plant's withdrawals, the Society is concerned that

The applicant has stated that present plans contain no provision for withdrawing cooling water from the Scituate Reservoir System (OSP, in comment GIC8-41); please see the response to comment FA4-1. With respect to incorporating studies of the Scituate system in the EIS, please see the responses to comments SA7-13 and GIC1-22.

OSP will need another source, with the Scituate Reservoir system the most likely possibility.

Mr. Chafee disagreed with the statement in the DEIS (page ES-3), that Blackstone River cooling water withdrawal restrictions would determine the amount of time the OSP plant would cease or reduce operations, and thus determine the financial feasibility of the project in the absence of a backup cooling water source. The Society is forced to believe that the Scituate system, previously designated the backup water source, is still considered a potential source. Since this reservoir system supplies drinking water to about 60 percent of Rhode Island's population, any effect on it would be the most dramatic environmental impact of the OSP project.

Mr. Chafee explained the background of the issue, the disagreement between the State Planning Division and the Providence Water Supply Board on whether the Scituate Reservoir system has adequate capacity to supply OSP 4.4 mgd without affecting other commitments. The Society believes that the EIS effort is the proper means to examine and resolve this issue. Disappointed that the DEIS devotes less than a page to this issue, Mr. Chafee urged FERC to conduct the necessary field work. This discussion (page 3-14) merely restates what most people familiar with Rhode Island water issues already know, that there is disagreement on the reservoir system's safe yield.

Mr. Chafee said that the Society disagrees with the FERC Staff recommendation, which essentially refers the issue to the State for a decision. The Water Supply Board has a vested interest in selling its water, and can be expected to claim that water supplies are adequate. The rest of the people in Rhode Island who depend on this water source would like to know if supplies are ample and what the maximum safe yield actually is.

Mr. Chafee said this issue was not thoroughly examined in the DEIS because use of Scituate system water was only an alternative. He

pointed out that when the project was initially being planned, the Scituate Reservoir system was designated the primary cooling water source. This raised some opposition, so the plans were changed to use the Blackstone River as the primary source and the Scituate was redesignated the backup source. The Society is concerned that this pattern of drastic changes in planning may be repeated, particularly in light of the State's decision to restrict withdrawals from the Blackstone River.

Mr. Chafee outlined a scenario in which, after the EIS process is completed, OSP would decide not to use Blackstone River water under the State's restrictions, and would conclude an agreement with the City of Providence Water Supply Board. The actual reservoir system capacity would still be unknown. He urged that this issue be thoroughly addressed in the FEIS.

Staff notes that such a modification to OSP's proposal could constitute a substantial change in the proposed action that is relevant to environmental concerns, and thus may trigger a need for an EIS supplement or further evaluation by state authorities.

Mr. Chafee added that this issue is not only one of drinking water supplies. The Scituate Reservoir system is a major source of the Pawtuxet River, an important Rhode Island waterway. Withdrawals from the reservoir system will affect flows in the Pawtuxet; such effects deserve the same level of assessment as appears in the DEIS for the Blackstone River. The draft does not even mention the Pawtuxet River. He concluded by urging FERC to resolve the issue of the Scituate Reservoir system capacity.

Eugenia Marks. Mrs. Marks identified herself as the Issues/Publications Director for the Audubon Society of Rhode Island. She expressed the Society's appreciation to Dames & Moore for its efforts in gathering the information used in the DEIS. She was presenting some specific points where the Society believed the detail and scope of the document could be improved.

Mrs. Marks asked the basis for the comment that "Effects of water withdrawals on water quality in the Blackstone River also would not by themselves be significant" (pages ES-2 and 5-1). Table 4.1-2 indicates

Please see the responses to comments FA4-3, FA3-13, and FA3-15.

that four of the six metals considered would increase as a result of the withdrawals. While elevated concentrations might not negatively affect indicator species under test conditions, she stated that any increase is undesirable.

She pointed out that water quality data submitted by Ocean State Power for its Section 401 (Clean Water Act) water quality certificate lists seven metals (cadmium, chromium, copper, lead, nickel, silver, and zinc) plus dissolved oxygen as parameters of concern in the Blackstone River water column and sediments. The DEIS omits zinc from its presentation. The Society requests that a comparison of these concentrations with the standards for Class B water (fishable/swimmable) be separated from the comparison with Class B/C water that is presented, since attaining Class B status is a goal of the Federal Clean Water Act. She noted that it would be helpful if the concentrations measured were expressed in the same units as the water quality standards (micrograms per liter). The Society suggests that RIDEM's response to the Section 401 application, specifying mitigation measures, indicates that there is more than "an insignificant impact." RIDEM also questioned the contention that the aeration provided by the Thundermist Dam is sufficient to restore dissolved oxygen levels in the river. The Society asked FERC to consult RIDEM's Division of Water Resources to obtain details on water quality in the Blackstone River for inclusion in the FEIS.

Mrs. Marks explained that Dr. Frank Bohlen of the University of Connecticut has been reviewing the Section 401 application for the Audubon Society. It appears that data submitted for this permit application are more detailed than the data presented in the DEIS, which was completed at an earlier date. The permit application was not available to the public until April 1, 1988; the Society's review of this information was not completed at the time of the Public Comment Meeting, and would be submitted in writing.

Mrs. Marks noted the statement in the DEIS "At the time of minimum flow, some water was bypassing the gage through a canal, so the total river flow was greater than shown in the record" (page 3-10). She said that this comment seems to be irrelevant, since biota in the natural river bed would be affected by the gaged low flow, and would not benefit from the total flow in the river.

The reference to a canal bypass in 1934 was made in an historical context, to explain the recorded extreme low mean daily flow. It has no relevance to present-day flow conditions.

Mrs. Marks said the Society questioned the safe daily yield of 89.3 mgd provided by the City of Providence Water Supply Board for the Scituate Reservoir system (page 3-16). Mrs. Marks repeated Mr. Chafee's request that the FEIS include a more detailed study of the impacts of withdrawing up to 4.4 mgd from the Scituate system. The Society is particularly interested in the effects on water quality in the Pawtuxet River below the outfalls of sewage treatment plants on the river. Any reductions in water released by the Gainor Dam, should the water supply be overextended, could have significant effects on the Pawtuxet.

Please see the response to Mr. Chafee's comments on page M-38 above.

Mrs. Marks asked why the DEIS did not present actual effluent water quality analyses for the Woonsocket wastewater treatment plant in Table 2.1-23, rather than figures for a "typical" plant.

Please see the response to comment FA2-12.

Mrs. Marks asked how the 0.5 percent maximum sulfur-in-fuel content noted in the DEIS (page 4-17) would be assured. The Society would also like to know if this proposed standard, which is lower than Rhode Island's 1 percent "cap" on sulfur content, was used in the emissions calculations.

Please see the response to comment FA4-21.

Mrs. Marks said the Society was interested in learning how long the OSP plant could operate on the 5 million gallons of number 2 fuel oil that will be stored onsite. She asked what the duration of the storage lifetime for the fuel oil would be, and how often the plant would use up the stored oil.

Operation of the OSP plant on oil is discussed on page 2-123 of the DEIS. Oil stored onsite would operate the plant for about 6 days at full load. OSP would not need to operate the plant on oil more than a few times each year in order to maintain fresh fuel oil in the onsite tanks. As noted in the response to comment SA7-43, the maximum duration of fuel oil combustion would be limited to approximately 1,500 hours per year.

Mrs. Marks asked if the gas supply contracts among Tennessee, OSP, and ProGas of Canada are interruptible. If so, high residential customer demand for gas could interrupt supplies to industrial customers such as OSP. In this case, the Society asks for a projection of the frequency and duration of the periods when the OSP facility would burn fuel oil. The Society asked that the projected emissions in tons per year for oil firing in Table 4.1-5 be calculated for various scenarios.

OSP has an agreement with Tennessee for a firm (uninterruptible) natural gas supply for OSP's Unit 1, and has contacted Tennessee regarding a firm supply for Unit 2 (see comment GIC10-14). Staff does not believe that presentation of various scenarios in DEIS Table 4.1-5 would be meaningful.

Mrs. Marks said that OSP's Prevention of Significant Deterioration permit application was being processed by RIDEM, and the information in it had not yet been made available to the public. The Society would thus submit its comments on this application at a later date.

Mrs. Marks asked if the New England energy consumption figures presented in the DEIS (page 2-2) include conservation measures. If so, she asked what conservation programs NEPOOL has implemented. She noted that the statement "Total electricity demand is adjusted (reduced) to account for projected conservation and load management techniques" (page 2-6) implies that the programs are or will be in place. She asked what NEPOOL has done to date to redistribute peak and seasonal loads; to implement marginal rate structures; and to introduce other demand management techniques into its system. She asked that the final EIS detail specific programs in NEPOOL's demand management plans for the next 5 and 10 years.

Please see the response to comment FA3-3. Elements of NEPOOL's "adjustments to load" are presented in FEIS Table 2.1-5.

Mrs. Marks asked what species list the Rhode Island Natural Heritage Program provided to support the statement "...no State endangered or threatened species of flora and fauna are known to exist on the proposed site" (page 3-47). She asked if FERC staff is aware that this evaluation is based on assumptions made without comprehensive field work. That is, no endangered species are known to exist on the proposed site because no organized effort has been made to search for them. The list of plants provided by the Audubon Society of Rhode Island and included in the DEIS was developed by a several-hour survey,

Please see the response to comment FA2-31. Staff is appreciative that the Society provided the information on species in the site vicinity, and recognizes the qualifiers associated with these data.

conducted on a single day in September by a professional botanist. Mrs. Marks cautioned that it represents only a sample survey of the site, and should not be construed as comprehensive or complete.

Ellen Greiner. Mrs. Greiner identified herself as a member of the Board of Directors of the Audubon Society of Rhode Island, and said that her comments would focus on the issue of the maximum safe yield of the Scituate Reservoir system. As stated by Mr. Chafee, the Society believes this to be crucial, given the possibility OSP could decide to use the Scituate system as its cooling water source.

Mrs. Greiner questioned some of the data and its presentation in Table 3.1-4, "Scituate Reservoir Capacity and Yield" (page 3-16). Referring to the minimum and maximum "Total delivery and commitments" figures under the heading "Providence Water Supply Board," she stated that the "minimum" figure was based on the 1960's drought years, was calculated in 1986, and is correct. The "maximum" figure of 82.0 mgd (she said 84.0) is not based on the same time period. The source of the maximum yield is apparently a 1957 Metcalf & Eddy Services study, based on a period around 1909, and taking some of its drainage area information from another part of the State.

Mrs. Greiner noted that the DEIS does not indicate the criteria upon which a safe yield should be based. She characterized the minimum and maximum safe yield figures as being derived from unknown criteria that may not be accurate or appropriate for the analysis. The Society believes it to be crucial to develop a standard for determining a safe yield.

Mrs. Greiner pointed out that the Scituate Reservoir is now approximately 62 years old, and sedimentation has undoubtedly reduced its capacity by an unknown amount. She asked that field surveys be conducted of the reservoir. She asked why more recent data than 1982 were not used for this table. She questioned the lack of difference between many of the minimum and maximum figures. She asked what the

Please see the response to Mr. Chafee's comments on page M-38 above.

legal requirements for water flows in the Pawtuxet River were. She stated that this leads to the question of what the City of Providence's rights are to water from the North Branch of the Pawtuxet River. The City did not claim such rights until the OSP plant was proposed, at the time with the intention of drawing cooling water from the Scituate system, according to Mrs. Greiner. She mentioned an agreement between the City and mill owners early in the century over water rights in the river, and claimed the issue is still in dispute.

Mrs. Greiner mentioned the issue of the Scituate Reservoir system's water supply commitments to municipalities. She said the Society has long criticized the City of Providence Water Supply Board because it has no idea of the long-term demand throughout its service area. Many Rhode Island communities lack capabilities for comprehensive planning, she said. Growth is occurring in many areas of the State, but it is not known exactly where, nor what the corresponding demand on the Scituate system will be. Mrs. Greiner noted that, when the cooling water supply pipeline form the Scituate to OSP was first proposed, the City of Smithfield asked if it could tap water supplies from the pipe. The City of Woonsocket tried unsuccessfully to pass a bill in the legislature to expand the Water Supply Board's service area, so that Woonsocket could obtain Scituate water.

Mrs. Greiner asked for information on the City of Providence Water Supply Board's wholesale contracts. Some of these are based on a figure of 150 gallons per capita per day. Based on current population information, the Society believes that in both legislation and contracts, the Water Supply Board is overcommitted. She complained that the DEIS does not contain information on the future water supply situation. Nor does it address a situation where the Board may be committed to supplying water to OSP and a drought forces water use restrictions on municipalities.

Mrs. Greiner said that the Society was interested in the possibility of using the Woonsocket wastewater treatment plant effluent for

Please see the response to comment FA2-16. The speculation that it would be necessary to upgrade the treatment plant for OSP to use its effluent as cooling water, and would thus provide an environmental benefit, is interesting but outside the scope of the EIS.

cooling purposes. She pointed out that the Blackstone River does not meet the State's designated water quality standards. Were OSP to use the effluent as cooling water, there is the possibility mentioned in the DEIS that the treatment plant would need to upgrade to tertiary treatment. Mrs. Greiner said that this was probably an attractive option, and should be addressed in the FEIS.

Roland Huguenin

Mr. Huguenin identified himself as a Burrillville resident, living very near the proposed OSP site on Douglas Pike at the intersection with West Ironstone Road. Stating that he was "100 percent in favor of the plant," he also registered a complaint about the natural gas pipeline route, which is planned to cross his and adjacent property. He said that the original route maps he examined at the Burrillville Town Hall did not show the pipeline crossing his property, although Tennessee had already contacted him about the right-of-way release. He said employees of the company eventually told him the original route had been selected to follow the power lines through the Buck Hill Management Area. He said they implied to him that the State did not want the gas pipeline crossing its land, so the route was changed to run behind his house. He complained that private individuals have no recourse in this type of situation.

The gas pipeline route in the vicinity of Mr. Huguenin's property is part of the proposed Providence Project, which will be the subject of a separate environmental document. Staff will address routing alternatives in its analysis of that project.

More generally, Mr. Huguenin said he is opposed to clearing any more forest or taking any more land for utility rights of way in this section of Burrillville. The area near his property is already criss-crossed with various utility lines. He stated his belief that new lines should as much as possible follow established corridors, to minimize the impacts on private property.

Please see the response to comment GIC2-4; additional information on the issue is provided in comment GIC8-35 and the response to comment SA5-4.

Mr. Huguenin described himself as an engineer at the second largest hospital in Rhode Island, and said he had considerable experience working around blasting operations. He wished to reassure residents that specialists expert in demolition and excavation with

Staff generally agrees with this comment.

explosives will be able to avoid damaging structures. Blasting problems, when they occur, are normally hydraulic effects.

Mr. Huguenin claimed firsthand knowledge of Rhode Island's electricity supply situation. He has been forced to run the hospital's generators in the past summer and winter to avoid brownout conditions or even total loss of electrical power. He said anyone travelling in the State can see the new construction and development. Knowing that no new generating stations have been built in many years, the need for new plants is evident. He urged rapid implementation of the proposed action, and expressed sympathy with the regulators forced to make decisions on the project. Mr. Huguenin acknowledged that the issues involved are fairly complex, and that local opposition to the use of any site that might be selected is only natural.

Staff generally agrees with this comment and welcomes Mr. Huguenin's viewpoint.

Allan Batastani

Mr. Batastani said his comments would be confined to the mitigation measure involving a buy-out plan or similar compensation mechanism for the most affected residents. He expressed his personal conclusion that the OSP facility would be built on Sherman Farm Road, based on the strong support from State and local officials evident at the meeting. He said it could be seen from looking around the room that a positive impact of the proposal was that it would negatively affect only about 50 voters. The great sums of money involved make it a plum for the State and community. Mr. Batastani said he was discouraged to read that the Town will receive $73 million in taxes and a $2 million scholarship fund, while the residents most affected by the plant are receiving $200,000 in compensation.

Please see the response to comment GIC3-2. OSP's view on the "buy-out" plan is contained in comments GIC8-20 and GIC8-21; Tennessee's in comment GIC10-9; New England Power Service's in comments GIC6-1 and GIC6-2.

Mr. Batastani said that, in spite of the repeated testimony about the need for the proposed action, the issues in fact revolve around the profit motive. However, he does not see for himself the profits from the investment in his home and property. He asked that the FEIS better address the compensation or buy-out mitigation. He quoted Mr. Riva's

statement to a newspaper that OSP did believe there would be any adverse effects on property values from the project, and that the $200,000 community fund is the best way to satisfy everyone's needs. Mr. Batastani claimed that, even on casual reflection, the community fund appeared to be very insufficient. He asked that an independent appraiser be appointed, either as part of the EIS process or through the Energy Facility Siting Board, to determine the effects of constructing the plant on nearby homes. Having spoken to personnel from appraisers, he knows such studies can be done and have previously been carried out around proposed power plants.

But Mr. Batastani objected to the idea that compensation is only to be calculated in terms of property value effects. There are also negative effects of operating noise, light, traffic, and visibility. He believes all these issues should be explicitly considered in the compensation plan in addition to their indirect effects on property values. He said that the $73 million and the 27 percent tax increase made the Town Council's job a little easier, but at the expense of the nearby residents, the people who were still at the Public Comment Meeting at the late hour.

Mr. Batastani reiterated his suggestion that the FEIS and the Energy Facilities Siting Board address the compensation plan in much more detail. He also asked that the plan contain numerous options. He asked that the affected residents be represented on the compensation committee, claiming that of the nine members to be appointed none lives near the proposed site. He repeated his contention that, for all the positive aspects of the proposed action, some 50 people were being asked to suffer most of the negative effects.

K. Philotheos Beres

Mr. Beres introduced himself as a resident of Uxbridge who had moved there 2 years ago, and developed great appreciation for the rural beauty and quiet of the area. He objected to the tax treaty between

Please see the response to comment GIC3-2.

OSP and Burrillville as not addressing the negative effects on Uxbridge residents near the proposed site.

Reverend D. Kenneth Beres

Reverend Beres introduced himself as a resident of Aldrich Road in Uxbridge, north of the proposed site within a half mile. He expressed satisfaction at the way the meeting had been conducted. He also said he was impressed by the speakers, who had in his opinion demonstrated in great detail that the DEIS is unreliable and largely a fabrication. He said that he had some suggestions for revising the FEIS.

Reverend Beres claimed that if the general proposal to build the OSP facility at the Sherman Farm Road site had been known 6 years ago, then there had been collusion against him on the part of the Town and the people who sold him his house, presumably for not telling him about the proposal. He claimed he would lose $50,000 if he sold his house. He also decried what he believed to be the inevitable negative effects on wildlife in the nearby management areas. He strongly suggested that the OSP plant should be located at one of the four sites that were more highly ranked, and probably at the Ironstone site.

Chairman Lister stated that he took exception to the view that the DEIS contains fabrications. Reverend Beres replied that the evening's discussions contained sufficient support for his position.

Anne Bishop

Mrs. Bishop introduced herself as a resident of Aldrich Street in Uxbridge, who recently moved there from Woburn, Massachusetts, to escape pollution and congestion similar to what the OSP project would bring to Burrillville. She complained that most Burrillville residents were not objecting to the proposal because the site is an isolated area on the Massachusetts line, and would not affect most of them. She

FERC Staff is unable to address the charge of collusion, but is generally of the opinion that it is unlikely.

Please see the response to comment GIC3-2 on mitigation for property value changes. Based on the EIS investigation, Staff believes that impacts on wildlife in the Management Areas will be minimal; please see Section 4.1.5.1. With respect to the suggestion that an alternative site be selected, please see the responses to comments GA3-26, GIC3-1, and FA3-7.

Please see the response to comment GIC3-2.

claimed more residents of Massachusetts than Rhode Island live in the immediate area of the plant, and their concerns are being ignored.

Robert Woods

Mr. Woods introduced himself as a Burrillville resident living on West Ironstone Road, with his property abutting the proposed OSP site. He also identified himself as having formerly served the Town of Burrillville in the positions of building inspector and zoning officer, advisor to the Planning Board, and health officer. He said in recent years he has attended and participated in numerous meetings on the OSP proposal. He claimed that the Town's elected officials have not listened to his concerns; at one Town Council meeting he was called out of order eight times.

Mr. Woods objected to the decision to allow the plant to be built in his neighborhood. He said he bought his house assuming that the zoning laws would preserve the residential character of the area. He said he bought the property because he believed he could there raise his children in an environment that ensured their health, safety, and welfare. He believes that this environment is threatened by the proposed action, which will substantially change his quality of life, and is intolerable to him.

He requested that, if the proposed action is so important for the State and Town, that their representatives should meet directly with him and negotiate an equitable price for his home. He termed the $200,000 fund for all affected residents as totally unacceptable.

Close of Meeting

Chairman Lister recognized Mr. Saravara, who objected that the Tennessee Gas Pipeline Company's representative, in leaving the meeting while it was still in progress, showed a disregard for the NEPA process. Mr. Saravara also asked if there would be an additional

Staff has demonstrated in the EIS that there are no threats to health, safety, and welfare inherent in the proposed action. Please see the response to comment GIC1-7 on the status of the zoning designation of the Sherman Farm Road site.

Please see the response to comment GIC3-2.

comment period for the EIS. Chairman Lister said that he could not at that time say anything with respect to whether FERC would conduct a supplemental EIS. In answer to another question from Mr. Saravara, he said he could not state if there would be formal notification of a supplemental EIS, but invited interested individuals to call him at the phone numbers on the second page of the DEIS. Chairman Lister thanked the meeting participants and adjourned the Public Comment Meeting at 12:30 am on April 15, 1988.