RELATED CORRESPONDENCE

STATE OF NEW YORK DEPARTMENT OF PUBLIC SERVICE

THE GOVERNOR NELSON A. ROCKEFELLER
EMPIRE STATE PLAZA ALBANY 12223

50-596, 597

May 4, 1979

M. J. Ray
Manager - Nuclear Reports
New York State Electric
& Gas Corporation
Vestal Parkway
Binghamton, NY 13902

Re: Case 80008 - Information Requests Relating to Aesthetics at the New Haven Area;

Information Requests Relating to Geology and Seismology at the New Haven Area;

Information Requests Relating to Air Quality and Meteorology.

Dear Mr. Ray:

Enclosed you will find three sets of information requests dealing with aesthetics in the New Haven area, geology and seismology in New Haven and air quality and meteorology, respectively.

Questions regarding these requests for information should be directed to the following Commission staff members:

Aesthetics - Malcom Bishop (518)474-5363

Geology and Seismology - Peter Seidman (518)474-5363

Air Quality and Meteorology - Alan Domaracki (518)474-5363

We also note that henceforth each information request or interrogatory will be sequentially numbered within the part to which it relates. Thus, the information requests pertaining to

aesthetics begin with Question 77-16. This follows Question 77-15 which was served on April 13, 1979 under 16 NYCRR Part 77.

Very truly yours,

CRAIG M. INDYKE
Staff Counsel

cc: Roderick Schutt, Esq.
All Parties
NRC Docket Numbers
STN 50-596
STN 50-597

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

CASE 80008 - Information Request Relating to Aesthetics at the New Haven Site, 16 NYCRR PART 77.

77-16 The population figures contained in the application are based on 1970 data. Please provide current population figures for § 2.1.2.1, page 2.1-2 and § 2.1.2.2 at page 2.1-4.

77-17 Please locate and identify the marinas and pier-anchoring moorings with their respective capacities which are noted in the application at page 2.1-17, paragraph 1, line 4.

77-18 Please provide head-count estimates for the number of boaters and sport fisherman on Lake Ontario that are discussed in the application at page 2.1-24.

77-19 Please expand the historic, visually sensitive and intensive land use inventory data to include an area within a ten mile radius of the proposed station site. See § 2.6.4, page 2.6-4.

77-20 At § 2.6.5, page 2.6-6 paragraph 1, line 5 the application states that, "Most of the smaller low-lying elements of the station would be screened from view by the existing topography and mixed vegetation in the area." It appears from the application that existing vegetation along State Route 104 will be part of the construction area as indicated in Figures 3.1-2 and 3.1-3.

a. Please explain how and to what extent existing topography and vegetation will be cleared during construction.

b. To what extent and when does the applicant expect new vegetation to be replanted to rescreen the site?

77-21 At page 8.2-11 of the application reference is made to the "temporary negative impact" which would occur during construction and post-construction periods until screen planting maturity has been reached. Explain and describe the length of the period of time the applicant expects this temporary negative impact to exist.

77-22 Mention is made at § 2.6.5, page 2.6-6 of the application that comparable facilities exist at Nine Mile Point, six miles northwest of the site.

a. Have any assessments been made of the visual or aesthetics impacts that are expected to result from the New Haven facility in combination with the Nine Mile Point facility? If so, please provide details and any copies of written assessments that the applicant has or is aware of.

b. If no assessments of the combined impacts of the New Haven and Nine Mile Point facilities have been made, please provide:

1. an assessment of the two facilities' combined visual and aesthetic impacts as presently proposed; and
2. an assessment of the visual and aesthetic impacts of the facilities if the New Haven facility is sited closer or adjacent to the Nine Mile Point facility.

77-23 At § 2.6.5, page 2.6-7 the application states, "the aesthetic impact of the plume would be small relative to the overall impact of the station and would not be anticipated to adversely affect area residents or r ators."

a. What were the criteria upon which this conclusion was reached?

b. Please explain what the overall impact assessment would be in total.

77-24 Please provide an assessment of the impact during the defoliate season, and also during construction. See § 2.6.5, page 2.6-7.

77-25 Section 2.6.5, page 2.6-8 of the application describes the aesthetic impacts of the station as "moderate". Please explain and discuss what, if any, criteria were used in reaching this conclusion.

a. Was there any assessment of local viewer groups to identify visual resources not evident from the inventory?

77-26 Section 4.1 and Figure 4.1-4 of the application indicate that the off-site pipeline route will go through an orchard between Dempster Beach Drive and Hickory Grove Road. Please discuss:

a. The extent of clearing of 6-9 acres of the orchard, i.e., approximate number, age and average yield of the fruit trees.

b. The time periods when this area will be disturbed and the effect of construction on the activities on the entire orchard, i.e., the ability of the farmer to move through the orchard in a normal course of his activities of pruning, spraying, harvesting, etc.

c. The extent of disruption of sub-surface drain fields in access roads, if any, and the plans to restore these systems.

d. The engineering, economic, land use and environmental costs and benefits of relocating this section of pipeline in a manner which will reduce the disruption of the orchard, e.g., along the Dempster Beach Drive right-of-way, or further to the west of the edge of the orchard.

e. Does the applicant have any plans to provide site restoration at the location of the "makeup water pump house"? See Figure 3.1-13.

f. Has the applicant considered the two alternate routes as indicated in the attached reference Figure 4.1-4? What are the advantages and/or disadvantages to each of these alternate routes?

77-27 At § 4.1.2.10, page 4.1-17 the application discusses the visual and aesthetic effects site preparation and construction activities will cause. The application states that these effects will be of "moderate intensity".

a. What is the basis for the conclusion that the effects will be moderate?

b. What time table has been established for the clearing of property adjacent to State Route 104?

77-28 Does the applicant expect that the existing vegetation would provide screening during construction? If not, does the applicant plan to continue rescreening during construction? See § 9.4.2, page 9.4-2.

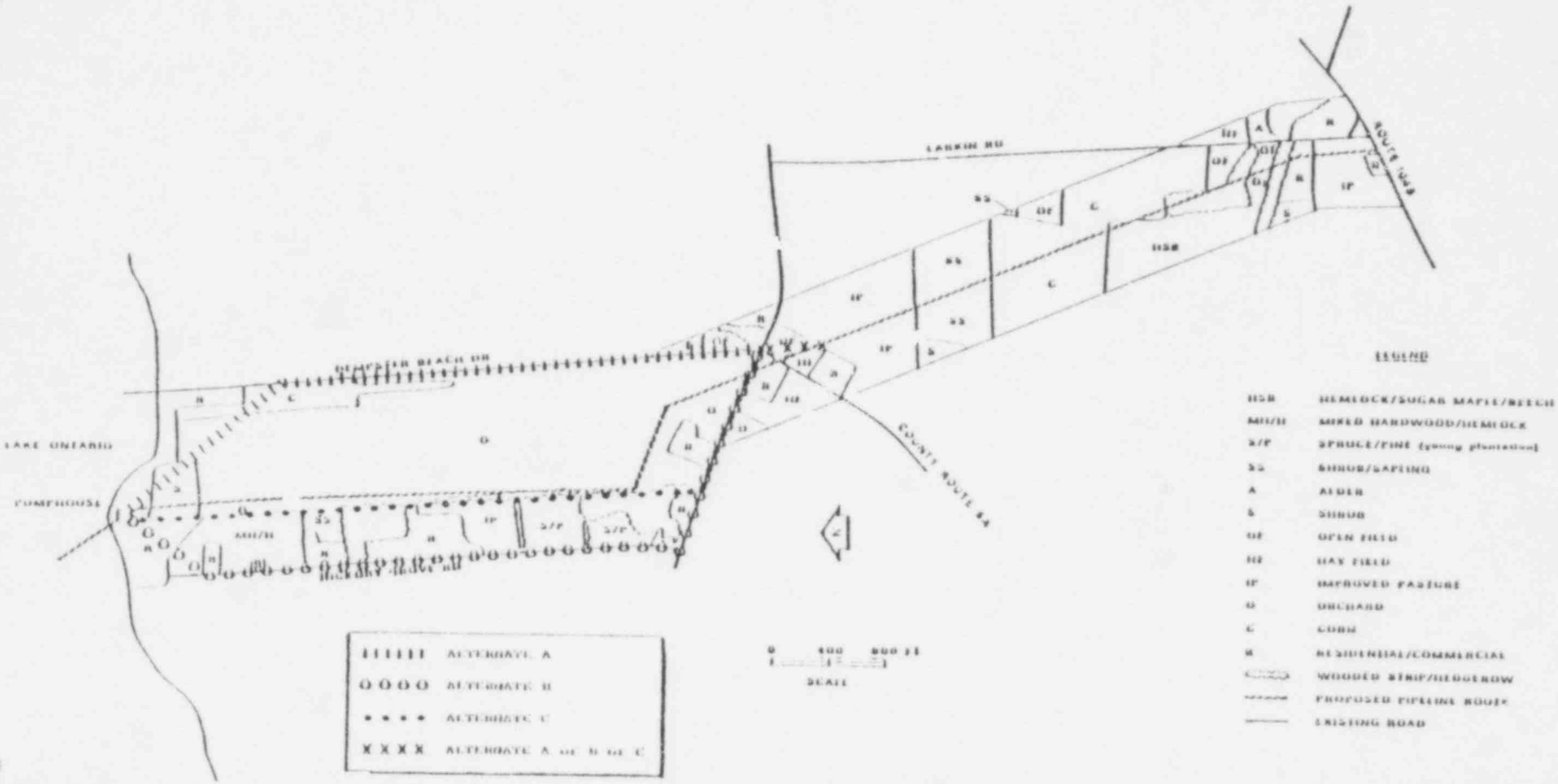

FIGURE 4.1-9 NEW HAVEN SITE

OFFSITE PIPELINE ROUTE

NEW YORK STATE ELECTRIC & GAS CORPORATION
ENVIRONMENTAL REPORT – NUCLEAR

305 044

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

CASE 80008 - Information Requests Relating to Geology and Seismology in the New Haven Area, 16 NYCRR Part 76.

76-1 Section 2.4.13.3.2 of the Preliminary Safety Analysis Report (PSAR) at page 2.4-25 states, "The fractures in the ordered zone in the top of bedrock are distributed so as to reasonably approximate the conditions of homogeneity necessary for calculation of dispersion." According to § 2.5.1.2.3.2 of the PSAR at page 2.5-42, the site area primary joint sets trend N45W and N70E. The NE trending joints are roughly parallel to the ground water contours noted on Figure 2.5-48.

a. Demonstrate that the NW trending joints, and weathering and fracturing along this trend, do not control ground water flow, therefore, yielding less dispersion and shorter travel ponds for contaminence than as indicated in the report.

b. Discuss the selection of traverse and longitudinal dispersivity in light of the response to the above question. See page 2.4-27 of the PSAR.

76-2 Support the selection of a coefficient of permeability of 2×10^{-3} cm/sec as conservative, rather than the selection of 10^{-2} cm/sec, which is the highest permeability encountered. See page 2.4-28 of the PSAR.

76-3 If travel time and/or dilution are changed as a result of responses to Questions 76-1 or 76-2, please discuss the effect on "all other significant isotopes." Please define "all other significant isotopes." See § 2.4.13.3.5 of the PSAR.

76-4 At page 2.5-21, the application states that the last movement along the Ramapo fault was prior to Cretaceous time. At page 2.5-63, the application discusses recent faulting along the Ramapo system. Please reconcile these statements concerning movement along the Ramapo fault line.

76-5 At page 2.5-79, the application states that glacial lake deposits "may support roadways, railways and small switchyard facilities."

a. Please discuss the potential effects on and damaging changes to these deposits caused by vibration and frost action with respect to:

(1) safety and stability of the supported structures;

(2) the cost of repairing the effects of any minor settlement or heave of these materials over the life of the plant versus the cost of using a different material for support which would avoid these problems.

76-6 Discuss the suitability of silts and clays for site grading with respect to maintenance costs as per Question 76-5. See page 2.5-87 of the PSAR.

76-7 The excavations for the circulating water cooling towers and pump house are not discussed in § 2.5.4.5 or indicated in the illustrations given on Figures 2.5-42 through 2.5-47 of the application. Please provide this information.

76-8 Diverting an 8,000 foot section of a stream into a 6,000 foot man-made riprap lined channel with an "essentially unchanged" stream flow will affect the hydraulic characteristics of the diverted section and the original, natural channel downstream from the diversion. Please discuss the changes in the erosional and dispositional regime of the stream and the impact on land use and water quality. Provide details on any models used and hydraulic characteristics selected in response to this question.

76-9 At § 2.4.3.6 of the PSAR mention is made of the "potentially ponded area near the confluence of the diverted stream and tributary FW."

a. Will the existence of the stream diversion cause the ponding or modify existing ponding?

b. Discuss and describe any expected off site impacts that will result from the ponding.

c. Please provide any models used and assumptions made in responding to these questions.

76-10 Will there be any conflict or interference between the diverted stream channel and water lines? See Figures 2.5-64 and 3.4-4.

76-11 Please provide details and expected plans for rock tunneling for pipelines including the expected methods to be used in the tunneling. See § 4.1.1.9 and 4.1.4.2.2.

76-12 Section 4.1.2.4.1 of the application does not discuss the sanitary waste treatment plant proposed for the facility. Please provide the proposed location of this facility.

76-13 Please provide the location of the potable water supply wells on the site and describe any potential effects upon the wells resulting from the facility. See § 2.4.13.1.3 of the PSAR.

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

CASE 80008 - Information Requests Relating to Air Quality and Meteorology, 16 NYCRR Part 73.

73-1 Refer to Part I, Section 2.3.4.2, page 2.3-30; Part III, Section 6.1.3.2.4, page 6.1-15; and Part I, Table 2.3-121.

a. Estimate the depth of the TIBL as a function of inland distance for meteorological conditions characteristic of the TIBL hours identified in Table 2.3-121.

b. Compare the results of (a) with source heights for:

(1) fossil facility emissions

(2) nuclear facility emissions

c. Identify conditions that favor shallow TIBLs.

73-2 Refer to Part III, Table 2.8-3, 44 Fed. Reg. 2608 and "Technical Support Document for Determination of Good Engineering Practice Stack Height" (Draft), July 31, 1978.

a. Review the GEP stack height calculation based upon the proposed regulation. Identify the combination of projected structure height, H, and lesser dimension, L, which results in the greatest estimated stack height.

b. Review the spacial relationship between the boiler house, (Unit #1 stack) and cooling tower #1 to determine if either may be termed a "nearby structure".

73-3 Refer to Part I, Section 5.1.4.1, page 5.1-53.

a. Provide a sample calculation for the treatment of ground-level fogging as computed by the mathematical model ENVIRN. Use the same meteorological data and physical constants as those used by the ENVIRN model which resulted in the fogging incident of March 3, 1979 at 9:00 p.m.

b. On the basis of (a), qualitatively describe why a fogging event is not predicted for the same hour when the cooling towers associated with the nuclear facility are evaluated.

c. On the basis of (a), qualitatively describe the effect upon fogging, assuming that New Haven nuclear facility was operating at 50% load during the hour in question.