

NEW YORK STATE BOARD ON ELECTRIC
GENERATION SITING AND THE ENVIRONMENT

CASE 00-F-1522 - Application of Astoria Generating Company, L.P.
for a Certificate of Environmental
Compatibility and Public Need to Construct and
Operate a 1,816 megawatt Natural Gas-Fired
Combustion Combined Cycle Turbine Electric
Generating Plant in the City of New York,
Queens County, New York.

NOTICE OF SCHEDULE FOR FILING EXCEPTIONS

(Issued April 18, 2003)

Attached is the Recommended Decision of Presiding
Examiner Harrison and Associate Examiner Garlick in this
proceeding, together with a copy of the Commission's rules
governing the procedures to be followed. Briefs on exceptions
will be due in hand to the undersigned and all active parties on
May 1, 2003. Briefs opposing exceptions are not contemplated.

JANET HAND DEIXLER
Secretary

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RECOMMENDED DECISION

BY

J. MICHAEL HARRISON, PRESIDING EXAMINER

AND

P. NICHOLAS GARLICK, ASSOCIATE EXAMINER

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APPEARANCES: See Appendix A

J. Michael Harrison, Presiding Examiner and
P. Nicholas Garlick, Associate Examiner:

I. INTRODUCTION

A. Project Description

On October 29, 2001, Astoria Generating Company, L.P. (AGC or the Applicant) filed an application with the New York State Board on Electric Generation siting and the Environment (the Board) for a certificate of environmental compatibility and public need to repower the existing Astoria Generating Station (AGS) in Astoria, Queens, New York (the Project). The AGS is located on a 17.3-acre site at 18-01 20th Avenue in Astoria, Queens.

The Project involves replacing four existing boilers at the AGS with six combined-cycle gas turbine assemblies. The repowering will increase AGS's electric generating capacity from 1,254 megawatts (MW) to 1,816 MW. Four of five AGS boiler units are currently operational. In Phase 1 of the Project, Unit 5's boiler will be replaced with three combined-cycle gas turbines. At that point, Unit 1 and Unit 2 boilers will be demolished and replaced with three turbines, and the Units 3 and 4 boilers will be permanently shut down.

The new equipment includes six new Siemens Westinghouse model 501 FD2 combustion turbines, and six new heat recovery steam generators (HRSGs); the existing Units 4 and 5 steam turbine generators and auxiliary equipment will be reused. Supplemental natural gas-fired inlet duct burners in the HRSGs,

along with combustion turbine inlet evaporative coolers and steam augmentation, will maximize electricity production. Although natural gas will be the primary fuel, the repowered facility will also be capable of using low sulfur (0.04%) aviation grade kerosene as a secondary fuel.

To minimize emissions of oxides of nitrogen (NO_x), dry low NO_x combustors and a selective catalytic reduction system will be used. The Project will also provide an oxidation catalyst to minimize emissions of carbon monoxide and volatile organic compounds (VOCs).

To minimize aquatic impacts, the Project plans include plume-abated mechanical draft wet cooling towers and a closed-loop circulating system. A reverse osmosis system will be used to remove salt from cooling water taken from the East River to convert to a freshwater cooling system. Passive 2 mm wedgewire screens will be used at the Project's water intake.

B. Procedural History

Prior to filing its application, AGC conducted a pre-application consultation process, as required by statute.¹ On September 5, 2000, the Applicant submitted its Preliminary Scoping Statement. Pre-application stipulations between state agencies and the Applicant² were followed in the performance of studies supporting the application.

The application was supplemented on November 6, 2001, November 30, 2001, January 10, 2002, and February 8, 2002. These supplements updated the application, and are included in the record as such.³ A final supplement was submitted on November 27, 2002.⁴

On December 28, 2001, the Chairman of the Board issued a letter stating that the application complied with

¹ Public Service Law (PSL) §163.

² Ex. 1, Vol. 5, App. 1-E.

³ The application is Ex. 1; see Exh. 43 for a listing of updated sections.

⁴ Ex. 28.

PSL §164(1) and seeking additional information. The additional information was provided in a response dated January 31, 2002.⁵

In parallel permit proceedings before the Department of Environmental Conservation (DEC), AGC submitted a Water Quality Evaluation and Application for SPDES Permit Modification on February 19, 2001 (with errata submitted August 17, 2001). On August 15, 2001, the Applicant submitted a Revised Air Quality Evaluation and Construction Permit Application with DEC. On January 2, 2002, DEC found the environmental permit applications complete and issued the initial draft environmental (PSD, Air State Facility, Title IV and SPDES) permits for public review and comment.⁶

A prehearing conference was held on January 8, 2002, and on February 11, 2002, we held two joint public statement hearings in Astoria, Queens, to receive unsworn statements from members of the public regarding the Application and the draft environmental permits. An issues conference was held on February 25-26, 2002, to identify all issues for adjudication. We issued our Article X and DEC issues rulings on March 20, 2002.

On March 21, 2002, AGC advised that all of the issues advanced to adjudication had been resolved except for the Article X issue of potential impacts of cooling tower salt deposition on existing, nearby electrical equipment.⁷ Following discussions among the parties on that topic, the Applicant advised that an extensive engineering effort would be required to address the salt deposition issue.

By September of 2002, the Applicant had completed its engineering evaluation, concluding that it would propose a freshwater cooling system. At a status conference held on September 17, 2002, the Applicant described its evaluation and conclusion. The information supporting this change in the

⁵ Ex. 9.

⁶ Ex. 5-8.

⁷ Ex. 21.

project was provided in "Supplement No. 4" to the Application on November 27, 2002.⁸

On February 12, 2003, a legislative hearing on proposed changes to DEC's draft PSD, Air State Facility and SPDES permits resulting from Supplement No. 4, and an Article X public statement hearing on the proposed changes, was held in Astoria, Queens.⁹ Only the Applicant submitted comments on the draft permits. In a letter dated February 19, 2003, Examiner Garlick advised the parties in writing that no petitions for party status had been filled in connection with the revised draft permits, and directed DEC Staff to take steps necessary to issue these permits. These permits will be issued shortly.

A procedural teleconference was held on February 18, 2003. On March 5, 2003, AGC advised that all outstanding Article X issues were resolved. By letter dated March 6, 2003, the Applicant agreed to an extension of the deadline for a decision in this case to June 30, 2003.¹⁰ An evidentiary hearing was held on March 19, 2003, at which an Article X record of 43 exhibits was identified and accepted into evidence.

Letter briefs in support of the application were filed by the Department of Public Service Staff (DPS), the Department of Health Staff (DOH), and the Applicant on March 31, 2003.

The record includes joint stipulations¹¹ signed by the staffs of DEC, DPS, and DOH, and by the City of New York (NYC), the Queens Borough President's Office (Queens), the Coalition Helping to Organize a Kleaner Environment (CHOKE), the Natural Resources Defense Council (NRDC), the New York Public Interest Research Group (NYPIRG), and the New York Power Authority (NYPA). Other participants - Consolidated Edison Company of New York, Inc. (Con Edison) and the United Utility Workers of America (UWUA), Local 1-2 - have indicated in e-mail correspondence dated March 31, 2003, that although they did not

⁸ Ex. 28. This supplement includes revisions submitted on February 6, 2003.

⁹ At both this and the earlier Article X public statement hearing there were no speakers in opposition to any aspects of the Project.

¹⁰ Ex. 41.

¹¹ Ex. 40.

sign the joint stipulations, they are not opposed to the project.

C. Summary of the Joint Stipulations

The Joint Stipulations contain 16 separate topic agreements which variously identify the nature of probable impacts the Project will have, identify the proposed certificate conditions related to the topic, and discuss how the proposed certificate conditions will minimize adverse impacts, as required under PSL §168.¹² The topic agreements include:

(1) Approved Procurement Process; (2) Land Use and Local Laws; (3) Groundwater, Water Supply and Water Use; (4) Noise; (5) Traffic and Transportation; (6) Solid Waste and Hazardous Materials; (7) Biological Resources; (8) Cultural Resources; (9) Visual Resources and Aesthetics; (10) Geology, Soils and Seismology; (11) Fuel Availability and Gas Transmission Facilities; (12) Air Resources; (13) Water Resources; (14) Electric Transmission Facilities; (15) Public Interest; and (16) Reasonable Alternatives.

Each topic agreement is reviewed below. We find that the topic agreements collectively address all of the topic areas identified in PSL §168. We conclude that the evidentiary record compiled in this proceeding is comprehensive, supports the terms of the Joint Stipulations, and provides an adequate factual basis for the Board to determine whether to grant a certificate to the Applicant for the Project.

D. Required Findings of the Board

Article X allows the Board either to grant or deny the application as filed, or to certificate a facility "upon such terms, conditions, limitations or modifications of the construction or operation of the facility as [it] may deem appropriate."¹³ In order to grant a certificate, the Board must find:

¹² PSL Article X expired January 1, 2003. However, Article X remains in effect as to this application, which was previously filed.

¹³ PSL §168(2).

- That the facility is reasonably consistent with the policies and long-range planning objectives and strategies of the most recent state energy plan, or that "the facility was selected pursuant to an approved procurement process."¹⁴
- The nature of the probable environmental impacts, specifying predictable adverse and beneficial effects on (a) the normal environment and ecology, (b) public health and safety, (c) aesthetics, scenic, historic, and recreational values, (d) forest and parks, (e) air and water quality, and (f) fish and other marine life and wildlife.¹⁵
- That the facility minimizes adverse environmental impacts, considering (a) the state of available technology, (b) the nature and economics of reasonable alternatives required to be considered under PSL §164(1)(b), and (c) the interest of the state respecting aesthetics, preservation of historic sites, forest and parks, fish and wildlife, viable agricultural lands, and other pertinent considerations.¹⁶
- That the facility is compatible with public health and safety.¹⁷
- That the facility will not discharge any effluent in contravention of DEC standards or, where no classification had been made of the receiving waters, that it will not discharge effluent unduly injurious to fish and wildlife, the industrial development of the state, and the public health and public enjoyment of the receiving waters.¹⁸
- That the facility will not emit any air pollutants in contravention of applicable air emission control requirements or air quality standards.¹⁹
- That the facility will control the runoff and leachate from any solid waste disposal facility.²⁰
- That the facility will control the disposal of any hazardous waste.²¹

¹⁴ PSL §168(2)(a).

¹⁵ PSL §168(2)(b).

¹⁶ PSL §168(2)(c)(i).

¹⁷ PSL §168(2)(c)(ii).

¹⁸ PSL §168(2)(c)(iii).

¹⁹ PSL §168(2)(c)(iv).

²⁰ PSL §168(2)(c)(v).

²¹ PSL §168(2)(c)(vi).

- That the facility will operate in compliance with all applicable state and local laws and associated regulations, except that the Board may refuse to apply specific local laws, ordinances, regulations, or requirements it regards as unduly restrictive.²²
- That the construction and operation of the facility is in the public interest, considering its environmental impact and the reasonable alternatives considered [under PSL §164(1)(b)].²³

With respect to air and water quality, the Board generally defers to the judgment of the DEC Commissioner, who has been delegated responsibility to issue permits from the United States Environmental Protection Agency (EPA) pursuant to the Clean Air Act (CAA) and Clean Water Act (CWA).

II. THE REQUIRED FINDINGS

A. Approved Procurement Process

The output from the Project will be dispatched in the competitive electric generation market, and accordingly, the parties submit, the Board should find that the facility is "selected pursuant to an approved procurement process."²⁴ The Project is intended to provide power to New York City and the surrounding region; its power will be sold into the New York competitive market and, potentially, in the markets of New England and the Mid-Atlantic states, markets that are under the control of independent system operators (ISOs).²⁵ A merchant generator participating in the competitive electricity market is selected pursuant to an approved procurement process.²⁶ We conclude that the Board can properly find the Project is selected pursuant to an approved procurement process.

²² PSL §168(2)(d).

²³ PSL §168(2)(e).

²⁴ PSL §168(2)(a)(ii); see Ex. 40, Tab A(1).

²⁵ Ex. 1, §1.3.

²⁶ Case 97-F-1563, Athens Generating Company, L.P., Opinion and Order Granting Certificate of Environmental Compatibility and Public Need (issued June 15, 2000), pp. 25-29; Mirant Bowline, L.L.C., Opinion and Order Granting a Certificate of Environmental Compatibility and Public Need (issued March 26, 2002), pp. 86-89.

B. Land Use and Local Laws

The application included a review of land use planning documents and goals relevant to the Project. This review included a qualitative assessment of the consistency of the Project with local and regional land use plans (existing, proposed, and potential) within a 1-mile radius of the site. The consulted plans and programs included the NYC Administrative Code, NYC's Comprehensive Waterfront Plan, the NYC Waterfront Revitalization Program, the Queens Comprehensive Waterfront Plan, the Greenway Plan for NYC,²⁷ NYS Coastal Management policies, the NYC Zoning Resolution, and the NYC Bicycle Master Plan. The record addresses the consistency of the Project with all of these plans.²⁸

Among noteworthy determinations are the NYS Department of State (DOS), Division of Coastal Resources' conclusion that Project's dredging for cooling system replacement meets its general consistency concurrence criteria,²⁹ and the Federal Aviation Administration's (FAA) April 24, 2002 Determination of No Hazard to Air Navigation.³⁰

The site is in an area, which extends to the north and east of it, zoned for heavy industrial use. The site, upon which the existing AGS is the predominant feature, has for many decades been dedicated to industrial and power generation uses. In terms of land use, no discernable cumulative impacts of this and other generation or industrial developments in the vicinity are identified.³¹

The parties assert that Project-related environmental impacts relating to land use will be minimal, because the project is located within the existing power generation site, and because the repowered AGS will be operated without significant interference with existing or known planned land

²⁷ The Greenway Plan identifies the greenway system, a citywide network of bicycle and pedestrian paths connecting open spaces and recreational areas.

²⁸ Ex. 1, §§4.2-4.6.

²⁹ Ex. 2.

³⁰ Ex. 23.

³¹ The certificated NYPA Poletti Combined Cycle Project and SCS Astoria generating station are located nearby.

uses, including recreational uses or waterfront plans. Similarly, the parties maintain that because the Project will comply with local laws and regulations, it is consistent with public health and safety.³²

The application lists local permits and approvals the Applicant would be required to obtain from NYC, in the absence of Article X.³³ The parties request the Board, pursuant to PSL §172, to authorize various municipal agencies to issue the applicable permits and approvals. There would be exceptions for those permits required for the installation, alteration and certification of air contamination sources, because NYC agrees that the Applicant has satisfied NYC's cumulative air quality impact analysis. The Board would retain jurisdiction over issuance of the local permits, upon petition of the Applicant, if, for example, the Applicant alleges unreasonable delay or conditions.

The Board can reasonably grant the local permit delegation as proposed. The Board may also reasonably conclude that the proposed facility minimizes adverse land use impacts, and is consistent with health and safety in relation to local land uses. Pursuant to Executive Law Article 42, the Board should find that the Project is consistent with 19 NYCRR Part 600 (Coastal Management Policies).

C. Groundwater, Water Supply, and Water Use

The record demonstrates that the Applicant has addressed the potential impacts of the proposed facility on water supply and water use. All water needs of the Project will be supplied by the New York City water supply system³⁴ and no new pipelines will be needed to supply this water. The proposed facility will use significantly less water than the existing facility and the NYC water supply system can accommodate the quantity of water required by the facility. As discussed below, cooling water for the Project will be drawn from the East River.

³² Ex. 1, §§4.6.2, 4.6.4; Ex. 28, pp. 4-4, 4-5.

³³ Ex. 1, Table 4.7-1.

³⁴ Ex. 1 §5.4.2.2.

The nature of the probable impacts of the proposed facility on groundwater, water supply and water use has been reviewed³⁵ and the record demonstrates that potential impacts have been addressed. The Applicant's evaluation of the geologic formations beneath the site of the Project has revealed that the general direction of the groundwater flow beneath the site is westerly to southwesterly and discharges into the East River.

The Project will not use any groundwater, and no significant change to the local hydro-geologic regime will occur as a result of this facility. Some groundwater may have to be removed during construction through dewatering, and all such water is to be disposed of according to applicable requirements. No groundwater will be used during the operation of the Project, however, and any indirect impacts to groundwater will be avoided by storing bulk chemicals indoors, containing hazardous materials, and following spill prevention and control plans for accidental releases.³⁶

The proposed facility will not adversely affect potable drinking water supplies, designated aquifer protection zones or other sensitive groundwater resources. No public water supply wells will be affected because any such wells are too distant from the site to be impacted. Accordingly, there are no cumulative impacts on groundwater from the proposed facility and the two other proposed power plants in the area, NYPA Astoria and SCS Astoria.³⁷

With regard to groundwater, water supply and water use, the Board can reasonably conclude that the proposed facility minimizes adverse environmental impacts and is compatible with public health and safety. The proposed facility is designed to operate in compliance with applicable state and local laws and regulations related to groundwater, water supply and water use, as well as public health and safety.

³⁵ Ex. 1 §5, Ex. 28.

³⁶ Certain metals and other contaminants have been detected in the groundwater near the site, and on-site groundwater will be addressed pursuant to an Order on Consent between the applicant and DEC, in an enforcement proceeding which is outside of this proceeding (Ex. 1, §5.3.1.4).

³⁷ Ex. 1, §5.5.1.

D. Noise

The probable noise impacts of the proposed facility have been reviewed³⁸ and the record demonstrates that the predictable noise impacts from the proposed facility have been addressed. The record shows that the Applicant conducted a baseline noise survey in November 2000. A subsequent inspection of the acoustic environment confirmed that there have been no significant changes since these baseline studies were conducted. The Applicant then evaluated the potential adverse noise impacts from both the construction and operation of the proposed facility.

The Applicant identified and evaluated potential construction noise from the Project during each stage of construction. Computer modeling of noise impacts was completed and an evaluation of construction traffic noise was performed. The record demonstrates that construction-related noise impacts will be minimized and will not cause hearing damage, sleep interference, indoor and outdoor speech interference or structural damage.³⁹ The construction noise impacts will be minimized by appropriate scheduling of significant noise producing construction activities and construction equipment selection. The project's construction-generated traffic noise impacts, moreover, will not be significant.⁴⁰

The Applicant also evaluated the potential adverse noise impacts from the operation of the proposed facility. The Applicant identified and evaluated sources of operational noise from the proposed facility, and the noise from these sources was modeled. The results of the modeling were compared against all applicable noise standards and design goals and found to comply with all state and local laws, including applicable NYC Noise Code and Zoning Resolution requirements regarding noise. Thus, the operation noise impacts of the Project will be minimized, and the Applicant has agreed to evaluate the effectiveness of

³⁸ (Ex. 1 §6).

³⁹ Ex. 1 §6.4.1 & 6.4.2.

⁴⁰ Ex. 17.

measures to minimize noise through a post-construction noise monitoring program.⁴¹

The Board can reasonably conclude that the proposed facility minimizes adverse impacts of noise and is compatible with public health and safety, during both the construction and operation of the Project.

E. Traffic and Transportation

The record includes an evaluation of the predictable impacts of Project-related traffic and transportation on the environment and public health and safety.⁴² Existing traffic conditions in the area of the Project site were evaluated, including primary access routes to and from the site and the area, and major roadways and intersections likely to be affected, such as the Grand Central Parkway, the Brooklyn-Queens Expressway, and the Triborough Bridge. Traffic count data were compiled, and emergency vehicle and school bus routes, public transportation, pedestrian activity and barge delivery information were also considered.

Likely traffic and transportation impacts during construction have been thoroughly evaluated, and updated for the revised cooling system.⁴³ Construction is expected to begin in 2004, with the peak occurring in 2005. Revised estimated construction volumes were added to underlying 2005 (no-build) volumes, and capacity analysis was performed on significant intersections. Mitigation was determined to be required at several intersections to restore acceptable impact thresholds.⁴⁴ Proposed mitigation measures were approved by NYCDOT in March 2002, and NYC supports the updated topic agreement on transportation.

The Project will use barge deliveries to transport heavy equipment to the Project site, and no impacts on navigation are expected. The end of runway 13 of LaGuardia Airport is about 1.5 miles from the site. Consequently, the FAA

⁴¹ Ex. 1 at §6.5.

⁴² Ex. 1, §7; Ex. 28, §7.

⁴³ Ex. 28, §7.

⁴⁴ Ex. 28, pp. 7-7 to 7-11.

will be notified in advance of the removal of any existing stacks, and the heights and locations of any construction cranes. The Project will incorporate a marking/lighting scheme approved by the FAA.⁴⁵

During Project operation, because there would be no increase in the existing work force, there would be no traffic impact beyond the no-build scenario. The analysis also included a review of the cumulative impacts of the Project together with the NYPA Astoria and SCS Astoria projects, and no impacts are expected. Detailed certificate conditions are included relating to construction traffic,⁴⁶ and the parties agree that the Project will comply with applicable NYC Zoning Resolution and FAA's 14 CFR Part 77 requirements.

Based on the foregoing, the Board can reasonably conclude that the Project's potential traffic and transportation impacts have been identified and will be minimized, and that the Project will be consistent with public health and safety in this regard.

F. Solid Waste and Hazardous Materials

The nature of the probable impacts of the proposed facility on the generation, storage and disposal of solid waste and hazardous materials has been reviewed,⁴⁷ and the record indicates that the Applicant will comply with all applicable hazardous materials and waste practices.

The site is the subject of the Order on Consent signed by the Applicant and DEC on September 11, 2000 and modified on July 16, 2001.⁴⁸ The remediation activities conducted pursuant to the Order on Consent are outside the scope of the Article X application. To the extent there is contamination where construction activity is planned, such areas shall be remediated prior to or concurrent with construction, and will remain subject to the terms of the Order on Consent.⁴⁹

⁴⁵ Ex. 23.

⁴⁶ Ex. 40, Tab B, §§III(I) and X(A)-(D).

⁴⁷ Ex. 1 §8, Ex.s 10, 28, 39)

⁴⁸ See fn. 36, supra.

⁴⁹ Ex. 1 §8.3.2.

During construction, non-hazardous solid wastes, including scrap wood, steel, glass, concrete and paper, will be generated and disposed of properly. All asbestos-containing materials will be removed and disposed of in accordance with all applicable laws and regulations. Any hazardous materials and wastes generated during construction, including waste paints, solvents, oils, lead paint and coal fly ash will be disposed of properly. All waste streams during construction will be properly managed on the site and characterized prior to being transported off-site by authorized waste haulers.⁵⁰

During operation of the proposed facility, non-hazardous solid wastes generated, including office materials, used oil, light bulbs and empty material containers are to be disposed of properly. The reverse osmosis system will require the use and storage of a number of substances, including ferric sulfate, sodium meta-bi-sulfate and Hypersperse MDC200BET3. In addition, other hazardous materials necessary to the operation of the Project will be stored and used, including kerosene, urea, sulfuric acid, and liquid phosphate. The storage, use and handling of existing and new hazardous materials and chemicals will comply with all applicable federal, state and local requirements. In addition, approximately 50,000 gallons of weak cleaning solution from the reverse osmosis system will be disposed offsite every two to six months in accordance with applicable requirements.⁵¹

The Applicant will also update the existing Facility Response Plan and Spill Prevention Control and Countermeasures Plan to account for changes brought about by the repowering. The Applicant will provide notification regarding hazardous materials and kerosene as required by the Superfund Amendments and Reauthorization Act. Facility Forms will be filed with NYC DEP and the Fire Department for sulfuric acid and kerosene. Finally, the Project will comply with the NYC Fire Code and with NYS DEC's Bulk Storage requirements, including secondary containment and the availability of cleanup materials.⁵²

⁵⁰ Ex. 1 §8.4.1.2.

⁵¹ Ex. 1 §8, Ex. 10, 28, 39.

⁵² Ex. 1 §§8.5.8, 8.5.9.

With regard to solid waste and hazardous materials, the Board can reasonably conclude that the proposed facility minimizes adverse environmental impacts and is compatible with public health and safety.

G. Biological Resources

The nature of the probable impacts of the proposed facility on biological resources has been reviewed⁵³ and the record demonstrates that the predictable impacts on these resources have been evaluated. The Project will not impact any natural wetlands or aquatic habitat resources. The wildlife species found in the vicinity of the site, such as sea gulls and other birds, are already adapted to urban conditions. There will be only minimal changes to the existing dock and intake structures, and strategies to minimize any impacts will be employed, including disposing removed sediments offsite and filtering effluent prior to returning it to the East River. In addition, the Project will not impact essential fish habitats or endangered or threatened species. The project will be consistent with DEC's Tidal Wetlands Regulations (6 NYCRR Part 661) and the NYS Coastal Zone Management Program, as well as applicable regulations of the United States Army Corps of Engineers.⁵⁴

As discussed more fully below in the Water Resources section, the Project will use significantly less cooling water than the existing facility. The Applicant estimates that the Project will result in a 99% reduction in adult equivalent biomass loss because many fewer fish and other aquatic organisms will be killed as a result of the operation of the cooling towers.

With regard to biological resources, the Board may reasonably conclude that the proposed facility minimizes adverse environmental impacts and that the proposed facility will comply with all applicable federal, state and local laws and regulations.

⁵³ Ex. 1 §9 & 16)

⁵⁴ Ex. 1 §9.5.

H. Cultural Resources

The Board is required to determine the predictable adverse and beneficial impacts of the project on "scenic, historic, and recreational value,"⁵⁵ and that the facility minimizes adverse environmental impacts, considering the state of available technology, with respect among other things to "preservation of historic sites," and other pertinent considerations.⁵⁶ Cultural studies were conducted which consisted of field reconnaissance, review of available historical documentation, and consultations with various local and state officials. The cultural resources study, which covered the area within a one-mile radius of the proposed facility, was undertaken to identify historic cultural resources, evaluate their sensitivity, and determine whether they would be physically affected by construction or operation of the Project. This study included an evaluation of potential visual impacts, as discussed in the next section.

The cultural resources study identified nineteen structures of architectural interest within the study area, four of which are listed on the State or National Registers of Historic Places, and one of which is a New York City Landmark. The record suggests that none of these cultural resources is "significant" with respect to impacts. Thus, the record indicates there are no construction effects of concern, although an Unanticipated Discovery Plan will address archaeological resources that might be encountered during construction. Similarly, there will be no operational impacts, due to their distance from the Project, on historic or architectural properties. The NYS Office of Parks, Recreation and Historic Preservation (OPRHP) has found that the project will not impact cultural resources listed as eligible for inclusion in the State and National registers of Historic Places, and the NYC Landmarks Preservation Commission has indicated no concerns regarding the Project's impacts.⁵⁷

⁵⁵ PSL §168(2)(b).

⁵⁶ PSL §168(2)(c)(i).

⁵⁷ Ex. 1, §10.8.

The Board can reasonably make the findings required by PSL §168(2)(b) and 168(2)(c)(i) with respect to cultural resources.

I. Visual Resources and Aesthetics

The Board is required to determine the predictable impact of the facility on scenic and aesthetic resources, and to find that the facility's impact has been minimized with respect to aesthetics.⁵⁸ The record demonstrates that predictable impacts on visual resources and aesthetics have been evaluated.⁵⁹ The study area for the Project was defined as the area within a 1-mile radius around the center of the site. The application describes "baseline" conditions, including, among other things, features such as regional setting, land form, land use, physiographic and ecological features, and visually sensitive sites. An analysis of the character and visual quality of the existing landscape setting established seven "landscape similarity zones," each of which was evaluated in terms of visual resources. The area is diverse, consisting of a mix of industrial, manufacturing, residential, commercial and recreational uses. None of the landscape similarity zones was found to have a unique, high quality visual character.

The Project's visual impacts were evaluated using viewshed mapping, a cross-section analysis, field verification and photographic simulations. Twelve specific viewpoints were selected to represent views for identified viewer groups and landscape similarity zones. Simulations were prepared to illustrate typical cold and warm season operations, considering factors such as landscaping, lighting and visible plumes. A cumulative evaluation of the visual impact from this facility, and the proposed NYPA Astoria and SCS Astoria projects was also conducted.

A rating panel considered pertinent information, and concluded that none of the evaluated visual impacts was so significant as to require mitigation. From most perspectives,

⁵⁸ PSL §§168(2)(b), 168(2)(c)(i).

⁵⁹ Exh. 1, §11.

the Project merely replaces existing power plant structures, and stack plumes were determined not to be a major consideration. Cooling tower plumes, which would rarely occur, were also determined not to constitute a significant component of the visual impact analysis.

Certificate conditions will assure that attention is paid to design and aesthetic factors. These conditions address, among other things, removal of the existing AGS stacks, elimination of nearly all cooling tower plume visibility, color selection for building facades and cooling tower cells, outdoor lighting, and landscaping. In these circumstances, the Board may find, as asserted by the parties, that the project minimizes adverse environmental impacts considering the interest of the state with respect to visual resources and aesthetics.

J. Geology, Soils, and Seismology

The nature of the probable impacts of the proposed facility on geology, soils and seismology has been reviewed,⁶⁰ and the record demonstrates that the predictable impacts on these resources have been evaluated. The record contains a description of the existing topography, geology, seismology, soils and floodplain at the site of the Project as well as an assessment of sediments and conditions that exist at the bottom of the East River.

The site of the Project is level and bordered on the north and west by the East River. Based upon borings, the first 5 to 10 feet consist of fill; below that are glacial deposits of medium-dense to very dense, brown, coarse-to-fine sands. The bedrock beneath the site consists of Members A and B of the Fordham Gneiss formation. Seismic activity in the New York City area is considered to be low based upon a regional seismicity study.

During construction of the proposed facility, some excavated soil may be lost due to the removal of existing structures. Approximately 27,300 cubic yards of material will be cut for the footprint. Conventional mechanical excavation

⁶⁰ Ex. 1, §12.

methods will be used during construction and the foundation will be set into competent bedrock. Neither the identified geologic features nor the level of seismic activity in the New York City area requires special design or construction methods and the impacts associated with the earthwork activities are minimal. Construction will occur in stages to reduce the area of exposed soil, which will minimize the total area disturbed at any particular time. The Applicant will implement a soil erosion and sediment control plan to minimize potential adverse effects resulting from construction-related earthwork.

Buildings and foundations will be designed and constructed in accordance with all applicable New York State construction codes and requirements, and the Project will be constructed above the 100-year flood zone. The operation and maintenance of the Project will not affect geology, soils or seismic activity in the area.

With regard to geology, soils and seismology, the record demonstrates that the proposed facility minimizes adverse environmental impacts and that the proposed facility will comply with all applicable state and local laws and regulations. Therefore, the Board can reasonably conclude that the proposed facility minimizes adverse environmental impacts and is compatible with public health and safety.

K. Fuel Availability and Gas Transmission Facilities

Some modification of on-site natural gas piping and associated meters, valves and regulators will be needed to accommodate the new combustion turbines.

AGS currently interconnects with a 20-inch diameter high-pressure gas transmission line owned by Consolidated Edison Company of New York, Inc. (Con Edison), KeySpan Energy Delivery New York, and KeySpan Energy Delivery Long Island. The parties agree that there will be adequate availability of natural gas supplies and, with planned construction, sufficient pipeline capacity to meet the needs of the proposed facility. They also agree that implementation of the project will not adversely affect distribution reliability, pressure, or service adequacy,

and that all gas system construction will comply with all state and federal safety regulations.⁶¹

The Applicant is responsible for obtaining natural gas supply and transportation arrangements to provide for the fuel requirements of the Project. Although industry data indicate that supplies and delivery capability will be adequate, studies show that current pipeline capacity is inadequate to meet both firm and interruptible loads during the coldest days of an average winter. Accordingly, the Applicant has committed to 60,000 dekatherms (Dth) per day of firm transportation on the Iroquois Gas Transmission System Eastchester expansion. Due to uncertainty as to the timing of pipeline capacity additions, the applicant has developed a portfolio of firm and interruptible pipeline contracts, along with the ability to switch fuels for a limited number of days each year. It is not expected that the Project necessitates significant system reinforcements to the Con Edison distribution system, and the Project is expected to increase the system load factor, improving its operating efficiency.

Low sulfur kerosene, the backup fuel, would be used up to a maximum of 66 million gallons per year (the 750-hour equivalent). The kerosene will be delivered to the facility by barge, and stored at existing Fuel Storage Depot tanks. The 12 million gallons of kerosene storage capacity will provide for 5.7 days of operation at the maximum usage rate.

Based on this record, the Board may reasonably find that provision of fuel for this facility will be consistent with the public interest.⁶² The Board may also reasonably conclude that environmental impacts from the provision of fuel for the facility are minimized, and that all gas system construction is to comply with state and federal safety regulations and is consistent with public health and safety.⁶³

⁶¹ Ex. 1, §14.

⁶² PSL §168(2)(e).

⁶³ PSL §§168(2)(c)(i) and (ii), and 168(2)(d).

L. Air Resources

The nature of the probable impacts of the proposed facility on air resources has been reviewed and the record demonstrates that the Applicant has evaluated the predictable impacts of the Project on air resources, including the cumulative effect of air emissions from existing facilities and the potential for significant deterioration in local air quality.⁶⁴ The proposed facility will require several air permits, drafts of which are included in the record and the terms of which have been agreed upon by all parties. These permits include an Air State Facility Permit,⁶⁵ a Prevention of Significant Deterioration (PSD) permit,⁶⁶ and a Title IV Acid Rain Permit.⁶⁷ It is anticipated that DEC Staff will issue these permits before the Board decides whether to issue the Certificate.

The record describes the environmental setting as it relates to air resources and provides a summary of the meteorological data used by the Applicant to model the impacts of the Project. The record also describes the emissions from the existing AGS as well as those expected from the proposed facility and evaluates the air impacts during both construction and operation. The Applicant's modeling demonstrates that the construction of the Project and retirement of the existing boilers will have an insignificant adverse impact on air quality and will eliminate the release of 5,000 tons per year of pollutants into the air.⁶⁸

The Project will use a number of strategies to control emissions. It will use natural gas and low-sulfur kerosene or equivalent, dry low NO_x combustors, and Selective Catalytic Reduction (SCR) system to control emissions of NO_x. An oxidation catalyst will be used to minimize emissions of CO and VOCs. Emissions of particulate matter, sulfur dioxide, sulfuric acid mist, lead and trace metals will be minimized by fuel choice and

⁶⁴ Ex. 1, §15.

⁶⁵ Ex. 33.

⁶⁶ Ex. 34.

⁶⁷ Ex. 7.

⁶⁸ Ex. 1 at Table §15.3.2-1.

good combustion practices. The Applicant has proposed emission rates that constitute Best Available Control Technology (BACT) for particulate matter and sulfuric acid and Lowest Achievable Emission Rate (LAER) for VOCs. Although the Project is not subject to BACT or LAER for NO_x or CO, the emission rates proposed for these pollutants are equivalent to BACT and LAER, respectively⁶⁹. In addition, the Project will satisfy New Source Performance Standards. The record further demonstrates that emissions of particulate matter, including fine particulates (PM_{2.5}), will be reduced from present emission levels and not cause adverse risks to human health and public welfare.⁷⁰

The Project will have no significant adverse impact on air quality and will comply with all state and local laws regarding air quality. A continuous monitoring system for NO_x and CO will monitor compliance with emission limits for these compounds. The environmental justice analysis conducted by the Applicant, submitted as part of the PSD permit application, shows that the Project will not add significantly to any adverse environmental burden to a community of concern.⁷¹

With regard to air quality, the record demonstrates that the proposed facility minimizes adverse environmental impacts. Therefore, the Board can reasonably conclude that the proposed facility minimizes adverse environmental impacts and is compatible with public health and safety.

M. Water Resources

The nature of the probable impacts of the proposed facility on water resources has been reviewed and the record demonstrates that the nature of probable impacts on water quality, fish and other marine life and wildlife have been evaluated.⁷² The record describes the existing conditions at and near the Project with regard to water resources and an evaluation of the likely impacts of project construction and operation. The proposed facility will require a State Pollutant Discharge Elimination

⁶⁹ Ex. 1, §15.4.1.2 and §15.4.1.4.

⁷⁰ Ex. 26.

⁷¹ Ex. 1 at §15.6.9.

⁷² Ex. 1 §16.

System (SPDES) permit.⁷³ A Draft SPDES permit has been made available for public comment and it is expected that DEC Staff will issue the SPDES permit before the Certificate is issued.

In addition to the SPDES permit, the Applicant also seeks a Water Quality Certification (WQC) pursuant to Section 401 of the Federal Clean Water Act and 6 NYCRR §608.9. For a Project not subject to Article X of the PSL, DEC Staff would review such application and issue the WQC. However, by operation of 6 NYCRR §1000.7, the Board is authorized to issue WQCs for Article X applicants. In this case, DEC Staff and DPS Staff have worked with the Applicant and developed a draft WQC.⁷⁴ Based upon the recommendations of the staffs of the respective agencies and the facts presented below, the Examiners recommend the Board act to issue the requested WQC.

The most significant impact is a reduction in the amount of cooling water drawn from the East River from the present 865,000 gallons per minute (gpm) to 24,000 gpm during periods of peak usage. This represents a reduction in the volume of water used by over 97%. This reduced water usage also results in a 99% reduction in the amount of water discharged to the East River, and reduces its thermal plume.⁷⁵ In addition, the Applicant proposes to undertake activities in the East River to modify the cooling water and intake screen system by implementing technology that has been proposed as the Best Technology Available (BTA). There will be no fill, excavation, or modification of the existing bulkheads or riprap shoreline associated with the Project. The modification will involve the removal of accumulated sediment within the intake screen wells and placement of wedgewire screens.⁷⁶ In addition, the Applicant will be required to evaluate the feasibility of utilizing a fabric filter exclusion filter.⁷⁷ During construction, East River water quality will be protected by the implementation of erosion and sediment control features.

⁷³ Ex. 32.

⁷⁴ Ex. 42.

⁷⁵ Ex. 28 §16.

⁷⁶ Ex. 1 §9.4.

⁷⁷ Ex. 36.

It is expected that, during operation of the proposed facility, a reduction of more than 99% in the killing of adult equivalent biomass will be achieved through the use of plume-abated wet cooling towers with 2 mm wedgewire screens. This is also expected to substantially reduce the cumulative impacts from existing East River power plants.⁷⁸ Therefore, the Board can conclude that the Project will not significantly adversely affect aquatic resources.

With regard to water quality, the Board may conclude that the proposed facility minimizes adverse environmental impacts and that the proposed facility will comply with all applicable state and local laws and regulations. The Board may also reasonably conclude that the proposed facility minimizes adverse environmental impacts and is compatible with public health and safety.

N. Electric Transmission Facilities

The record contains an evaluation of the probable impacts on the environment and ecology, on public health and safety, and on the electric transmission system from the Project's electric transmission facilities.⁷⁹ Currently, there is a 138 kV interconnection between AGS and Con Edison's electric system. The only modifications will be new connections between the new generator step-up transformers and the existing underground cables or overhead conductors into Con Edison's Astoria East and Astoria West substations. The existing transmission lines for Units 2 and 3 will be relocated to a new tower constructed adjacent to a new 138 kV gas-insulated switchyard, for connection of those units to the substations. Two existing towers will be removed.

The Applicant submitted a system reliability impact study (SRIS) which indicated the Project will not adversely affect the transmission system in the New York Control Area.⁸⁰ This SRIS was approved by the NYISO on January 24, 2002. The redesigned freshwater cooling system, the subject of the amended

⁷⁸ Ex. 28, §16.

⁷⁹ Ex. 1, §§2.2.7, 2.4.9, 2.5.3, 17; Ex. 28, §17.

⁸⁰ Ex. 1, §17.4.1.

application, has removed salt deposition concerns and results in insignificant effects on the reliability of nearby electrical equipment.⁸¹ The record also indicates a decrease in electromagnetic effects, as a result of tower relocation.

There are detailed certificate conditions designed to ensure that construction and operation of the Project will comply with all electric system safety and reliability requirements. The Board may reasonably conclude that the predictable impacts of transmission facilities have been addressed. The Board may reasonably find that the proposed transmission facilities will minimize adverse environmental impacts, that the construction and operation of the transmission facilities will be consistent with health and safety, and that the project will be designed to operate in compliance with state and local laws concerning electric transmission facilities.

0. Public Interest

The parties maintain that the public interest is served by this proposed facility, because its benefits outweigh any adverse environmental impacts. Reference is made, as discussed above, to the significant reduction of air emissions and to the 97% reduction in water removed from the East River through the use of a closed-loop condenser cooling system. They also note the consistency of the Project with the State Energy Plan,⁸² and the benefits of increased generating capacity and improved electric system reliability in New York City. The Project is expected to improve the competitiveness of New York's energy market and contribute to lower location-based marginal prices (LBMPs). This, in turn, reflects the improved combustion efficiency of the new facilities and the reduced consumption of fossil fuels.

The parties also cite several socioeconomic benefits,⁸³ including direct and indirect generation of jobs for the New York labor force in connection with construction. Construction-related salaries and wages, excluding benefits, are estimated at

⁸¹ Ex. 28, §15.

⁸² Ex. 1, §1.3.

⁸³ Ex. 1, §13.

about \$128 million. Of the estimated \$1 billion cost of the Project, about \$600 million would be spent in the New York Metropolitan area, generating an additional \$458 million of economic activity. The Project's operations will mainly be handled by the existing AGS workforce. There will be some additional labor expenditures for operation and maintenance of the facility.

Because the Project reuses the existing generating site and infrastructure, as discussed above, other environmental or social impacts will be negligible, and public inconvenience will be avoided or minimized. On the basis of the foregoing, the Board may reasonably conclude that the proposed facility is in the public interest.

P. Reasonable Alternatives

The Applicant is a private applicant under Article X, without the power of eminent domain,⁸⁴ and accordingly the review of reasonable alternatives is limited to other sites the Applicant owns or has an option to purchase.⁸⁵ No such sites have been identified. Accordingly, there has been no consideration of alternative sites for this proposed facility.

As a practical matter, moreover, the proposal flows from the concept of expanding the capacity of an existing generating facility, while improving its efficiency and environmental profile. In these circumstances, use of any alternative site by this Applicant would have left the existing site as it currently exists. Logically, therefore, repowering of the existing facility avoids an entirely new site for equivalent capacity, and should be considered on its own merits in any event. In this regard, the parties have compared the Project to the "no build" alternative, which they maintain is inferior to the proposed facility because of the generation

⁸⁴ 16 NYCRR §1000.2(o).

⁸⁵ PSL §§164(1)(b) and 168(2)(c)(i); 16 NYCRR §1001.2(d); Citizens for the Hudson Valley v. New York State Board on Electric Generation Siting and the Environment, 281 AD2d 89 (3d Dept., 2001)

capacity, and competitive, economic and environmental benefits it will provide.

The Board may reasonably conclude that no consideration of alternative sites is required by law, and that the proposed facility is desirable and worthy of certification, in view of all of the other findings discussed and recommended above.

II. CONCLUSION

On the basis of the foregoing discussion, we conclude that the Board can reasonably make all of the findings required by PSL §168 and, with the issuance of required air and water permits by DEC, can grant a certificate of environmental compatibility and public need to the Applicant for the proposed facility. The Project is supported by the parties and has not been opposed. It is regarded as beneficial, as the repowered AGS will produce more electricity more efficiently, while significantly reducing air emissions and withdrawal of water from the East River. The Board should condition the certificate as proposed by the parties in the attached certificate conditions. The Board should delegate local permitting responsibility to appropriate NYC permitting authorities as discussed above. The Board should also find consistency with Coastal Zone Management Policies (19 NYCRR Part 600) and compliance with Tidal Wetland Regulations (6 NYCRR Part 661). Finally the Board should determine compliance with New York's regulations relating to the use and protection of waters (6 NYCRR Part 608) and issue the proposed Water Quality Certification.

APPEARANCES

FOR DEPARTMENT OF PUBLIC SERVICE STAFF:

Jean A. McDonnell, Esq., Three Empire State Plaza,
Albany, New York 12223.

FOR ASTORIA GENERATING COMPANY:

Scott M. Turner, Esq., Nixon Peabody, LLP, Suite 130,
Clinton Square, Rochester, New York 14603; Ruth H.
Silman, Esq., Nixon Peabody, LLP, 101 Federal Street,
Boston, MA 02110

FOR CONSOLIDATED EDISON COMPANY OF NEW YORK:

Jeffrey L. Ribeck, Esq., 4 Irving Place, New York,
New York 10003.

FOR DEPARTMENT OF ENVIRONMENTAL CONSERVATION:

Mark D. Sanza, Esq. and Jennifer Hairie, Esq.,
625 Broadway, Albany, New York, 12233.

FOR DEPARTMENT OF HEALTH:

David W. Quist, Esq., Room 2417, Corning Tower, Empire
State Plaza, Albany, New York 12237.

FOR KODA CONSULTING, INC.:

Richard J. Koda, Principal, 409 Main Street,
Ridgefield, CT 06877.

NATURAL RESOURCES DEFENSE COUNCIL:

Katherine Kennedy, Esq., 40 West 20th Street, New
York, New York 10011.

FOR NEW YORK CITY LAW DEPARTMENT:

William Plache, Esq., 100 Church Street, Third Floor,
New York, New York.

FOR NEW YORK POWER AUTHORITY:

James D. Lyons, Esq., 123 Main Street, White Plains,
New York 10601.

FOR NEW YORK PUBLIC INTEREST RESEARCH GROUP (NYPIRG):

Lisa F. Garcia, 9 Murray Street, Third Floor,
New York, New York 10007-2272.

FOR QUEENS BOROUGH PRESIDENT'S OFFICE:

Hugh Weinberg, Esq., 120-55 Queens Boulevard, Kew
Gardens, New York 11424.

FOR QUEENS CHOKE:

Daniel Gutman, 407 West 44th Street, New York, New
York 10036.

NEW YORK STATE BOARD
ON ELECTRIC GENERATION
SITING AND THE ENVIRONMENT

IN THE MATTER

- of the -

CASE 00-F-1522

Application of Astoria Generating Company, L.P. for
a Certificate of Environmental Compatibility and
Public Need to Construct and Operate a 1,816
Megawatt Natural Gas-Fired Combined Cycle Turbine
Electric Generating Plant in New York City,
Borough of Queens, New York

PROPOSED CERTIFICATE CONDITIONS

I. Project Authorization

- A. The Certificate Holder is authorized to construct and operate the Repowered Astoria Generating Station and associated on-site interconnects as described in the record of this proceeding (the "Project"), except as waived, modified or supplemented by this Certificate or other permits. The term "Project" shall not be deemed to include any activities other than those identified as part of the Repowering of the Astoria Generating Station in the record.
- B. The Certificate Holder is responsible for obtaining all necessary permits, including State Pollutant Discharge Elimination System ("SPDES") and United States Army Corps of Engineers ("USACE") approvals under the Clean Water Act ("CWA"), Clean Air Act ("CAA") Prevention of Significant Deterioration ("PSD") permit, CAA Title IV (acid rain) permit, CAA Title V (major stationary source) permit, and any other approvals, land easements, and rights-of-way that may be required for this Project and which the Board is not empowered to provide.
- C. The Project shall be designed to operate and be operated in compliance with all applicable federal and state laws and regulations. The Project shall be designed to operate and be operated in compliance with all applicable local laws and regulations, subject to the Board's ongoing jurisdiction.
- D. The Certificate Holder is authorized to connect to the New York Facilities Gas Transmission System as described in Condition V(C) hereof.

- E. The Certificate Holder is authorized to construct, or have constructed on its behalf, and to operate, or have operated on its behalf, the Electric Interconnects at the Astoria East and Astoria West as described Conditions V(A) and (B) hereof.

II. General Conditions

- A. The Project and/or its Site shall be constructed, operated and maintained as set forth in the Application and other submissions, and as indicated by the Certificate Holder in stipulations and agreements during this proceeding, except as these may be waived, modified or supplemented by the Board, and except as regarding conditions contained in the SPDES, PSD, and Air State Facility Permits issued by DEC.
- B. The Certificate Holder shall submit a schedule of all filings and other submissions to the Siting Board as required by these Certificate Conditions, and to the extent practicable, shall coordinate the schedule for submitting Compliance Filings with the relevant state agencies having jurisdiction over such Compliance Filings.
- C. The Certificate Holder shall submit Compliance Filings consistent with Part 1003 of the Article X regulations. A "licensing package" is defined herein as a component of Compliance Filings and includes all plans or other submissions required by these Certificate Conditions. Licensing packages may be submitted individually or on a combined basis. All filings shall be served on all active parties that have advised the Siting Board of their desire to receive a copy of such filings.
- D. The Certificate Holder shall submit an environmental compliance plan to ensure (1) implementation and maintenance of required environmental mitigation measures; (2) compliance with the terms of this Certificate; and (3) compliance with applicable federal, state and local statutes, ordinances, rules and regulations, except as waived in the Opinion and Order. The Compliance Plan shall include:
 - a. the name(s) of the environmental inspector(s) and a statement of qualifications for each inspector demonstrating sufficient knowledge and experience in environmental matters to complete the inspections and audits;
 - b. a certification confirming the independence of the inspector(s) from the Certificate Holder; and certifying the authority of the inspector(s) to "stop work" in cases of non-compliance or imminent environmental or safety hazard;
 - c. provision for deployment of more than one inspector in the event that two or more major field operations are undertaken simultaneously, such that at least one inspector shall be assigned to each construction area and no inspector shall be assigned to more than two active construction areas at any one time;
 - d. a proposed checklist of matters to inspect for compliance, including the specific items or locations to be inspected, the inspection method to be employed (e. g., visual, auditory, testing by instrument, etc.), and acceptability criteria to be applied by the inspector(s);

- e. a procedure setting forth how the Certificate Holder will respond to and correct problems found by the inspector(s);
- f. a schedule for monthly environmental audits during construction and submission of audit checklists, together with a written explanation of problem(s) encountered, if any, and the actions taken to correct the problem(s) signed by the auditor(s) and an authorized representative of the Certificate Holder, to DPS Staff, DEC Staff, and local agency and/ or building inspectors; and
- g. a schedule for submission of annual audits during the first two years of operation of the Facility to DPS, DEC and appropriate local agencies.

III. Construction Conditions – General

- A. These Certificate Conditions shall be made contract requirements for the construction contractors as applicable, to the extent commercially practicable.
- B. Appropriate construction personnel shall be trained in environmental compliance matters.
- C. The Certificate Holder shall submit for DPS review, its plan for a Public Construction Information Program (PCIP), to be carried out prior to and during the construction phase to support and enhance the Certificate Holder's pre-certification PIP efforts. To those ends, the Certificate Holder shall submit a "proactive" PCIP designed to maintain communications with and inform the affected population with adequate advanced notification of all construction activities and schedules. The PCIP shall continue for a period of six months after the Facility becomes operational. The PCIP shall identify the following:
 - a. targeted audience and geographic areas;
 - b. how communities/stakeholders will be involved and informed in a timely fashion of the construction schedule prior to and during the project's construction phase;
 - c. steps that shall be taken to notify all communities within the projects study area of construction phase activities and scheduling and the time frame in which steps shall occur;
 - d. criteria that shall be used to determine direct mail notification guidelines of property owners and residents within a specific area or radius of the certified site;
 - e. local libraries and other public locations where information shall be disseminated;
 - f. media outlet plan for dissemination of information to the public and its frequency of use;

- g. written materials that shall be used to reach stakeholders with construction information (Q&A's, newsletters, information brochures, visual materials, i. e. graphs, charts, site maps, etc.);
 - h. stakeholder notification as to Certificate Holder's representatives and contact means: office location and hours, local and toll-free telephone numbers, web site address, construction site sign or information board, etc.;
 - i. availability of a "public presentation request program" with speakers to inform the public about the construction and operation of the facility;
 - j. evaluation method that shall be used to determine the effectiveness of the PCIP;
 - k. maintenance of a complaint log; and
 - l. the complaint resolution process to be used.
- D. The normal construction shifts for the Project shall include two shifts occurring between 7:00 AM and 12:30 AM. Between the hours of 6:00 PM and 7:00 AM, Certificate Holder shall not: (1) engage in pile driving, jack hammering or demolition; (2) use bulldozers, excavators or dump trucks for Site preparation; (3) load or off load big pipes or other materials that could make excessive noise; or (4) exceed any regulatory noise limits. Deliveries related to construction activities shall take place during the hours of 7:00 AM to 6:00 PM unless; (1) delivered by barge; (2) to accommodate oversized delivery pursuant to NYCDOT permit; or (3) otherwise involving incidental deliveries of small items. All night time barge deliveries, the unloading of which could cause excessive noise, will not be unloaded unless such unloading activity has commenced before 12 p.m. (noon) and, for safety reasons, must be completed without interruption. Notwithstanding the preceding sentence, the Certificate Holder shall remain in compliance with the City's nighttime noise standards. Equipment installation and assembly between the hours of 6 PM and 7 AM shall be performed, to the extent practical if necessary to comply with applicable standards, within buildings planned to house such equipment. The Project's construction activities, whether daytime or nighttime, shall comply with the applicable regulatory requirements. For certain construction phases and activities, such as initial plant startup, testing and final commissioning of the Facility, and concrete pours, additional work hours may be necessary. Community notice of these events shall be provided as detailed in the Community Liaison section. For nighttime construction involving noisy activities, including start-up testing and commissioning, the Certificate Holder shall identify in a Compliance Filing the specific noise control measures which shall be implemented to minimize potential off-site noise impacts.
- E. The Certificate Holder shall not dispose of construction related waste by burning those waste materials on the site. The Certificate Holder shall be responsible for the actions of its contractors to prevent the burning of waste materials on the site. All construction wastes shall be disposed of in accordance with applicable laws and regulations.

- F. All unused, excavated materials and/or construction debris shall be removed upon completion of construction and disposed of in accordance with applicable laws and regulations.
- G. If dust palliatives other than water are required, only those that are listed on the New York State Department of Transportation's Approved Materials List shall be used, in accordance with the associated conditions for use of those chemicals. DPS will be notified if palliatives other than water are intended for use.
- H. The Certificate Holder shall submit as a compliance filing a Grading and Drainage Plan and a Soil Erosion and Sediment Control Plan.
- I. During construction and operation of the Repowering, all trucks shall enter and leave the Site by means of the DOT designated truck routes.
- J. The Certificate Holder shall minimize offsite lighting impacts during construction through use of task lighting, lighting fixture shields, and non-continuous and directional lighting.
- K. The Certificate Holder shall submit a Spill Prevention Control and Countermeasure Plan as part of a compliance filing to assure that water quality remains protected during construction as required by the Clean Water Act and the Environmental Conservation Law.
- L. The NYSDEC Region 2, Regional Water Engineer shall be notified, by telephone, 48 hours prior to the commencement of any discharge of hydrostatic test water. The discharge of hydrostatic test waters shall be under constant supervision. A positive means of controlling the rate of hydrostatic test water discharge and, if necessary, terminating the discharge shall be provided. No corrosion/scale inhibitors or biocidal type compounds are authorized to be discharged. All necessary precautions shall be taken to preclude contamination of any wetlands or waterways by suspended solids, sediment fuels, solvents, lubricants, epoxy coatings, paints, concrete, leachate or any other environmentally deleterious materials associated with the project work. Following completion of construction, a written summary report of the pressure testing work shall be provided to the Department. The report shall provide detailed information regarding the amount and duration of the discharges.

IV. Construction – Energy Facility

- A. The Project architectural design and details shall adopt the design principles and architectural materials as shown in the elevations and visual simulations described in and provided with Exhibit 38. Final design, including FAA stack marking requirements, architectural details and color palette recommendation as part of detailed design and engineering, and public outreach efforts shall be reported in a Compliance Filing. The Compliance Filing shall be provided to DPS and NYC's Department of City Planning for comment prior to its submission and shall include architectural elevation views, materials design and color specifications, and a site plan showing overall facility equipment, buildings and structures.

- B. The Certificate Holder shall design and construct the Project in accordance with all New York City Building Codes and applicable Uniform Building Codes and ANSI/ASCE standards to withstand the expected effects of a seismic event in accordance with New York City Seismic Code.

V. Construction – Gas and Electrical Interconnections

- A. The Certificate Holder is authorized to construct and shall design, engineer, and construct the transmission interconnection as provided in the System Reliability Impact Study ("SRIS") approved by the New York Independent System Operator ("NYISO") Operating Committee and in accordance with the applicable and published planning and design standards and best engineering practice of Con Edison, the NYISO, the New York State Reliability Council ("NYSRC"), Northeast Power Coordinating Council ("NPCC"), North American Electric Reliability Council ("NERC"), and North American Electric Reliability Organization ("NAERO"), and successor organizations. Specific requirements shall be those required by the NYISO Operating Committee in the approved SRIS, the Class of 2001 annual transmission reliability study, and by any interconnection or facilities modification agreement negotiated with Con Edison, NYSRC, and any successor Transmission Owners (as such term is defined in the New York Independent System Operator Agreement-Composite Reflecting Commission Orders Through July 13, 2000, as updated ("NYISO Agreement")).
- B. The Certificate Holder shall design, engineer, construct and operate the modification of the overhead transmission lines connecting to the Astoria East Substation in compliance with the electric and magnetic field strength standards established by the New York Public Service Commission ("NYPSC") in Opinion No. 78-13 (issued June 19, 1978) and *Statement of interim Policy on Magnetic Fields of Major Electric Transmission Facilities* (issued September 11, 1990), respectively.
- C. Gas Interconnections
 - 1. The natural gas interconnection facilities shall include replacement of a portion of existing pipelines, a filter/scrubber, valves, regulators, flow meter and gas regulating station, a combustible gas detection system, and sound attenuation enclosures for gas compressors to assure public safety and reliable service. All gas system construction shall be in accordance with requirements of Con Edison, PSC and the NYC Fire Department.
 - 2. The Project pipeline shall connect to the New York Facilities gas transmission system.

VI. Operation and Maintenance

- A. The Certificate Holder shall operate the Facility in accordance with the approved tariffs and applicable rules and protocols of the NYISO, NYSRC, NPCC, NERC, and NAERO, and successor organizations. Should aspects of network operation

be affected by the Facility that are under the lawful control of Con Edison, or successor Transmission Owners (as defined in the NYISO Agreement), rather than NYISO control, the Certificate Holder shall operate the facilities according to the procedures of Con Edison or successor Transmission Owners (as defined in the NYISO Agreement). The Certificate Holder reserves the right to seek subsequent review of any specific operational orders at the NYISO, NYPSC, the Federal Energy Regulatory Commission, or in any other appropriate forum.

- B. The Certificate Holder shall continue to maintain a telephone hotline to receive and respond to community comments.
- C. The Certificate Holder shall operate in accordance with its CAA Title V Operating Permit, Title IV Acid Rain Permit, and PSD permit and SPDES permit issued by DEC.
- D. Cooling towers shall be designed, constructed and operated with a plume abatement design point of 19 degrees Fahrenheit wet bulb at 85% relative humidity and with drift eliminators having a design drift rate of not greater than 0.0002 percent circulating water flow, as certified by a vendor guarantee or model test results to be supplied in a Compliance Filing. The cooling towers shall be maintained in good repair and in good working order. Circulating water flow shall not exceed 416,000 gallons per minute. As a result, the cooling tower system shall be operated with a drift rate not to exceed 0.84 gallons per minute.
- E. The concentration of total dissolved solids (TDS) in the circulating water shall not exceed 5,000 ppm as determined by continuous monitoring of conductivity. The monthly average TDS concentration in the circulating water shall not exceed 4,500 ppm. A rolling 12-month log of the daily volume of circulating water through the cooling tower system and its conductivity shall be maintained on site and available for review and provided on request to DPS, DEC, Con Edison and NYPA. The Certificate Holder shall provide to DPS, DEC, Con Edison and NYPA a monthly report containing the prior month's average TDS concentration in the Facility's circulating water and identifying any TDS concentration during the prior month in excess of 5,000 ppm for a period of more than 2 consecutive hours.

VII. Decommissioning

- A. The Certificate Holder shall be responsible for restoring any areas of the Project site disturbed by the Project in the event the Project is abandoned or cannot be completed after the start of construction. The Certificate Holder shall also be responsible for restoring any areas of the Project site disturbed by the Project if the Project is decommissioned, which shall be discussed in a Decommissioning Plan provided as a Compliance Filing (see paragraph C below). The Decommissioning Plan shall address, among other things, site restoration techniques and standards and the financial instrument to be provided, including the amount of money to be committed. For purposes of this certificate condition, research, surveying, boring or related activities necessary to prepare final design plans or permitting shall not be considered as construction.

- B. Prior to commencing any Project construction, other than the exceptions noted in paragraph A above, the Certificate Holder shall obtain a financial instrument, in the amount of \$2.5 million for the first year of construction, and in the amount of \$4 million for the remainder of the Project construction period, to assist in funding the cost of restoration of any areas of the Project site disturbed by the Project and unfinished Project construction areas in the event that the Project is not completed.
- C. At least six months prior to the commencement of Project operation and every five years thereafter, the Certificate Holder shall submit a Decommissioning Plan as a Compliance Filing documenting the projected cost of decommissioning the Project over the next five years. At that time, the Plan shall be initially funded by a financial instrument in the amount of \$4 million dollars with contributions up to \$7 million dollars at the first five-year review. The decommissioning fund shall reach \$20 million by the third five-year review. The Certificate Holder may, at subsequent five-year reviews, provide information on whether the \$20 million dollar estimate should be modified. The Decommissioning Plan, at a minimum, shall provide estimated costs for removing equipment, structures, fuel, supplies, wastes, and other actions necessary to restore the Project site. The Certificate Holder may also provide for consideration, as separate line items, estimated values of equipment salvage and resale and scrap metal recovery to the extent the items are not encumbered by a security interest. Once the Decommissioning Plan and the projected amount of the decommissioning fund for that period have been approved, the Certificate Holder shall post a financial instrument with appropriate renewal provisions, to cover the costs of decommissioning the Project. During each five-year period, the financial instrument amount shall be adjusted each year to reflect any revisions to the projected amount of money necessary for the decommissioning and corresponding changes in the Consumer Price Index.

VIII. Groundwater and Water Supply

- A. The Certificate Holder shall not use any groundwater from the Site and will not have any discharge to groundwater that would require the establishment of effluent limits as part of the SPDES permit modification.
- B. In accordance with DEP approvals, the Certificate Holder shall continue to purchase water from the NYC municipal water supply, through the DEP for use by the Repowering.
- C. To minimize municipal water use, the Certificate Holder shall use water-conserving devices such as low flow toilets, low flow showerheads, and closed loop cooling systems, where appropriate.
- D. All water for power production shall be supplied from existing storage tanks and not directly from the NYC municipal water supply system. The storage tanks will be refilled with treated water from the Reverse Osmosis Deionization System (RO DI). The RO DI system shall use municipal water supply at a rate less than or equal to 1580 gpm.

- E. All groundwater removed by the construction dewatering shall be disposed of in accordance with applicable requirements which will be described in a compliance filing.

IX. Noise

- A. The Certificate Holder shall incorporate the following noise attenuating measures into the Project design in order to ensure that sound levels during construction and operation comply with the limits set forth in Title 24, Chapter 2 of the New York City Administrative Code and in Section 42-21 of the City's Zoning Resolution and the requirements for meeting a CNR of "C":
 - 1. Design acoustical treatments into the two turbine buildings housing the CTs, generators and HRSGs, and into the enclosures for the circulating water pumps, gas compressors, and the gas metering station.
 - 2. Mitigate sound from the six air inlet filter houses by using an air inlet silencer system or equivalent attenuating measures.
 - 3. Install a silencer system on each CT exhaust stream to augment the sound attenuation provided by the HRSG units.
 - 4. Mitigate sound from the six new transformers by using low-noise design transformers or equivalent attenuating measures.
 - 5. Install low-noise wet cooling towers using low speed fans.
 - 6. Attenuate the sound from steam startup vents and safety valves that vent to the atmosphere using silencers.
 - 7. All deep foundation elements shall be installed using low-noise hydraulic augering and support equipment necessary for the work unless noise modeling of alternative methods submitted as a Compliance Filing demonstrates compliance with applicable standards.
 - 8. All contractors shall be responsible for ensuring that exhaust mufflers and engine enclosures are in place and in good working order on all equipment. All construction equipment shall be properly maintained and lubricated.
 - 9. The Certificate Holder periodically shall perform sound pressure level measurements of the Project during construction. The Certificate Holder shall identify in a Compliance Filing the phases of construction when monitoring shall be performed. This Compliance Filing shall be submitted 3 months prior to the start of construction.
- B. Within 6 months of the start of commercial operations of the Repowering, the Certificate Holder shall perform mid-field octave band sound pressure level measurements of the Project while it operates under typical load to verify

conformance with design goals. The specifications for the testing protocol shall be set forth in a Compliance Filing prior to testing.

- C. The Certificate Holder shall comply with federal regulations limiting truck noise (40 CFR § 205).
- D. A temporary, portable, high performance muffler shall be used to attenuate noise from steam blows that occur before the steam system is connected to the turbine and the steam line temporarily is routed to the debris trap and muffler and high pressure steam is vented through the tubing. Steam blows shall be conducted between 7 AM and 6 PM Monday through Friday only, unless noise modeling is submitted as a Compliance Filing demonstrating compliance with applicable standards.
- E. Electric air compressors shall be utilized during construction in lieu of diesel-powered air compressors.
- F. During operation, the Project shall achieve a modified Composite Noise Rating (CNR) of “C” at the nine sensitive noise receptors identified in the Application. Table PS-2 in Peter Guldberg’s December 19, 2002 memo to Janine Whitken (Ex. 36) sets out the maximum octave band levels allowed by applicable regulations for facility-generated sound at these receptors.

X. Traffic and Transportation

- A. The Certificate Holder shall furnish shuttle buses to transport construction workers to and from the Ditmars subway station and off site parking locations.
- B. In order to mitigate the traffic impacts associated with construction conditions at the following locations, the Certificate Holder, 6 months prior to the start of construction, shall request NYCDOT to:
 - 1. *1st Street/24th Avenue* – Stripe southbound 29th Street to accommodate one exclusive left-turn lane and one exclusive right-turn lane.
 - 2. *29th Street/Hoyt Avenue South* – Re-stripe the eastbound (Hoyt Avenue South) approach to accommodate an extra lane.
 - 3. *21st Street/36th Avenue* – Re-stripe the eastbound approach on 36th Avenue. Provide a 100-foot long right-turn pocket lane on southbound 21st Street and relocate an existing bus stop to the south side of the intersection.

In addition, during the AM peak period, reallocate two seconds of green time from the northbound-southbound phase to the eastbound-westbound phase. During the PM peak period, shift one second of green time from the northbound-southbound phase to the eastbound-westbound phase and restrict parking between 4:30 p.m. and 6:30 p.m. to provide storage for four car lengths (approximately 100 feet) on the westbound approach of 36th Avenue to facilitate vehicles making right turns onto 21st street.

4. *Vernon Boulevard/36th Avenue* –Remove on-street parking during the AM (6:00 a.m. to 8:00 a.m.) and PM (4:30 p.m. to 5:30 p.m.) peak periods along southbound approach of Vernon Boulevard and re-stripe to provide storage for four car lengths (approximately 100 feet) to facilitate southbound vehicles making right turns. Modify the existing traffic signal phasing to provide protected lagging phase of 13 seconds for Three seconds of green time from the eastbound-westbound phase and seven seconds from the northbound-southbound phase will be allocated to the protected northbound lagging phase. During the PM peak period, reallocate two seconds of green time from the northbound-southbound phase to the east-west phase.

In addition, during the PM peak hours, reallocate five seconds of green time to the northbound leading phase and four seconds of green time to the eastbound-westbound phase from the northbound-southbound phase.

5. *21st Street/Astoria Boulevard-Newtown Avenue-Vernon Boulevard* – Remove parking to provide a 100-foot long right-turn pocket lane on the southbound approach of 21st Street. On the westbound approach, provide a second left turn lane by reconfiguring the middle lane of to be a shared through/left turn lane instead of an exclusive through lane. Also, during the PM peak period, reallocate one second from the eastbound phase to the westbound.

In addition, re-stripe the southbound approach to provide a 100' foot right turn lane.

6. *21st Street/24th Avenue* – Modify the signal timing during the PM peak hour to reallocate four seconds of green time from the eastbound-westbound (24th Avenue) phase to the northbound-southbound (21st Street) phase.
7. *31st Street/36th Avenue* –Restrict on-street parking along the south side of 36th Avenue between 4:30 p.m. and 6:30 p.m. to provide storage for four car lengths which will provide additional room for eastbound through and right-turning vehicles to bypass queued eastbound left-turning vehicles.
8. *Vernon Boulevard/Borden Avenue* –Modify the signal timing during the PM peak hour to reallocate one second of green time from the eastbound-westbound phase to the southbound phase.
9. *Hoyt Avenue South/21st Street* – Modify the signal timing during the PM peak hour to reallocate five seconds of green time from the eastbound-westbound phase to the northbound-southbound phase.

In addition, restrict parking on the northbound approach of 21st Street during the PM (4:30 p.m. to 6:30 p.m.) peak period to provide storage for

four car lengths (approximately 100 feet) to facilitate vehicles making right turns onto Hoyt Avenue South.

10. *24th Avenue/29th Street* – Restrict parking on the eastbound approach of 24th Avenue during the PM (4:30 p.m. to 6:30 p.m.) to provide storage for four car lengths (approximately 100 feet) to facilitate vehicles making right turns onto 29th Street.

C. All transportation of heavy machinery on local roads shall be minimized and major equipment shall be shipped to the Site by barge to the maximum extent possible.

D. The stacks shall be marked and lighted as recommended by the FAA.

XI. Solid Waste and Hazardous Materials

A. The Site is the subject of an Order on Consent signed by Orion Power and NYSDEC on September 11, 2000. The Order on Consent was subsequently modified on July 16, 2001. Any remediation activity conducted at the Site under the Consent Order is outside the scope of this Article X proceeding. Project construction shall take place concurrent with or subsequent to remediation of wastes subject to the terms of the Order on Consent.

B. The Certificate Holder shall comply with all applicable state and federal chemical and waste-storage use and handling regulations and will keep the local fire department apprised of chemicals and waste on site.

C. All ACM shall be handled and managed by a New York licensed asbestos abatement contractor in accordance with applicable federal, state, and local regulations. Suspect ACM, material containing greater than or equal to one percent asbestos, as defined by the DEP, shall be collected using EPA, NYSDOL, and DEP protocols. Waste containing asbestos shall be wetted, placed in sealed, labeled containers, quantitatively documented, and separated from other waste.

D. The Facility Response Plan (FRP) and Spill Prevention, Control, and Countermeasure (SPCC) Plan shall be updated and submitted as part of a Compliance Filing to reflect the change from No. 6 fuel oil to kerosene. The chemical Spill Prevention Report (SPR) shall be updated to reflect the use of all new chemicals, including sulfuric acid, liquid phosphate, and polymer as appropriate.

XII. Biological Resources

A. The Certificate Holder shall replace the existing once-through cooling system and traveling screens with plume abated wet cooling towers and wedgewire screens as described in Section 16.5 of the Application.

B. In-water construction shall be confined to the area within the intake structure under the existing pier and shall be performed under Army Corps of Engineers (ACOE) Nationwide Permits 3, 5, 16, and 33.

- C. The Certificate Holder shall use commercially reasonable efforts to evaluate the feasibility of utilizing a fabric filter exclusion system (patent pending) as the primary cooling water intake structure for the Facility as required by SPDES permit condition 12(d)).

XIII. Cultural Resources

- A. The Certificate Holder shall submit as a Compliance Filing a Plan and Procedures for Identifying and Responding to Unanticipated Discoveries of Cultural Resources in a pre-construction compliance filing, and the Certificate Holder shall implement such Plan upon its approval.

XIV. Visual Resources and Aesthetics

- A. The Certificate Holder shall implement the following measures:
 - 1. Remove the existing AGS stacks upon completion of the Repowering.
 - 2. Operate the cooling towers in the plume abatement mode.
- B. The Certificate Holder shall design the facility lighting to minimize glare and off-site spillage through shielding, use of downwardly directed low-intensity fixtures, and task lighting. The Certificate Holder shall present an Outdoor Lighting Plan as a compliance filing detailing the proposed outdoor lighting.
- C. The Certificate Holder shall develop a detailed Landscaping Plan to implement the conceptual landscaping plan as shown in Figure 11.4.3-1S of the Application and submit the Landscaping Plan as a compliance filing. Plant species selection shall be consistent with recommendations for waterfront plantings provided by the NYC Zoning Ordinance Article VI, Chapter 2, Appendix A. The selected species and the location of the plantings shall be designed as a continuation of the public green space of Ralph DeMarco Park. Tree planting specifications shall address the size, quality and condition of trees to be planted, appropriate planting techniques and specifying watering, maintenance and replacement responsibilities as appropriate.
- D. The Certificate Holder shall develop and submit, as a Compliance Filing, within one year of the start of commercial operations a Facility and Vegetation Maintenance Program to address the following:
 - 1. Periodic inspection of the outside infrastructure and grounds.
 - 2. Cleaning, repainting, and maintenance of facades and surfaces.
 - 3. Inspection, cleaning and maintenance of fencing.
 - 4. All landscaping shall be maintained per the requirements of the Landscaping Plan.

5. All trash or debris shall be collected and removed from the grounds and disposed of properly.

XV. Fuel Supply

- A. The primary fuel supply for the Project shall be natural gas. Low sulfur (0.04 percent) kerosene or other equivalent member of the distillate oil family shall be used as a backup fuel.
- B. In the regard to the provision of natural gas transportation service for the Project, the Certificate Holder shall comply with all applicable conditions and tariffs for transportation service on the Iroquois pipeline, other interstate pipelines, or on the Con Edison system. Nothing in this provision shall restrict the rights of the Certificate Holder to file a complaint with FERC under relevant provisions of the Federal Power Act.

XVI. Air Quality

- A. The Certificate Holder shall control potential emissions from construction related activities through limitation of exposed soils, use of covered trucks for transport of soils and other dry materials, limited storage of spoils on the construction site, final grading and protection of exposed areas.
- B. Cooling tower fans shall be run at full speed when in operation. The fans shall be off when the cooling cell is out of service. Fans shall not operate at intermediate speeds.
- C. The Certificate Holder shall minimize the amount of fugitive dust generated during construction.

XVII. Water Quality

- A. The Certificate Holder shall discharge sanitary wastewater to the Bowery Bay WPCP via existing infrastructure located within and adjacent to the Site. The volume of wastewater discharged to the sanitary sewer shall be less than 21,000 gpd. No new construction of sewer pipelines or connections to the DEP sewer main are permitted.
- B. Stormwater management during construction shall include the Grading and Drainage Plan and a Soil Erosion and Sediment Control Plan.

XVIII. Electric Transmission

- A. The Certificate Holder shall file a copy of the following documents with the Siting Board and with DPS as part of a Compliance Filing:

1. any requirements imposed by the NYSRC, which shall be filed prior to commencement of construction;
 2. all electric facilities agreements and electric interconnection agreements, and any amendments thereto, with Con Edison and successor Transmission Owners (as defined in the NYISO Agreement), which shall be filed prior to commencement of commercial operation of the Project;
 3. a Relay Coordination Study, which shall be filed not later than 18 months prior to the projected commercial operation date of the Project, and the detailed design of the electric interconnection facilities, and updates thereto, which shall be filed prior to commencement of commercial operation of the Project.
- B. The Certificate Holder shall work with Con Edison, and any successors, to ensure that, with the addition of the Facility affected transmission lines will have relay protection system equipment and appropriate communication capabilities to ensure that operation of the transmission system is adequate under NPCC "Bulk Power System Protection Criteria," and meets the protection requirements at all times of the NYSRC, NYISO, and Con Edison, and successor Transmission Owners (as defined in the NYISO Agreement). The Certificate Holder shall be responsible for the costs, together with associated expenses incurred, to verify that the relay protection system is in compliance with applicable NPCC criteria.
- C. The Certificate Holder shall operate the Project in accordance with the approved tariffs and applicable roles and protocols of the NYISO, NYSRC, NPCC, NERC, and NAERO, and successor organizations. Should aspects of network operation be affected by the Project that are under the lawful control of Con Edison, or successor Transmission Owners (as defined in the NYISO Agreement), rather than NYISO control, the Certificate Holder shall operate the facilities according to the procedures of Con Edison, or successor Transmission Owners (as defined in the NYISO Agreement). The Certificate Holder reserves the right to seek subsequent review of any specific operational orders at the NYISO, NYPSC, the Federal Energy Regulatory Commission, or in any other appropriate forum.
- D. The Certificate Holder shall work with Con Edison's system planning and system protection engineers to discuss the characteristics of the transmission system before purchasing any equipment for the Astoria East and West switchyards and other system protection and control equipment related to the electrical interconnection of the Project to the Con Edison transmission system. This discussion is designed to ensure that the equipment purchased will be able to withstand most system abnormalities. The technical considerations of interconnecting the Project to the Astoria switchyards shall be documented by the Certificate Holder and provided to DPS and Con Edison no later than 2 months prior to purchasing the equipment. Updates to the technical information shall be furnished as available.
- E. The Certificate Holder shall work with Con Edison's engineers and safety personnel on testing and energizing equipment in the Astoria East and West

switchyards. A testing protocol shall be developed and provided to Con Edison for review and acceptance. The Certificate Holder shall call DPS's Bulk Transmission Section within one hour to report any transmission-related incident that affects the operation of the Project. The Certificate Holder shall submit a report on any such incident within seven days to DPS's Bulk Transmission Staff and Con Edison. The report shall contain, when available, copies of applicable drawings, descriptions of the equipment involved, a description of the incident and a discussion of how future occurrences will be prevented. The Certificate Holder shall work cooperatively with Con Edison, NYISO and the Regional Reliability Council to prevent any future occurrences. The Certificate Holder shall make a good faith effort to notify DPS of meetings related to the electrical interconnection of the Project to the Con Edison transmission system and provide the opportunity for DPS to attend those meetings.

XIX. Land Use and Local Laws

- A. Subject to the Siting Board's ongoing jurisdiction, the Certificate Holder shall seek all applicable regulatory permits, including but not limited to those permits specified in Table 4.7-1 of the Application, from relevant New York City agencies pertaining to the construction work or operation of the Project, except for those permits required for the installation, alteration and certification of Air Contamination Sources under New York City Administrative Code.
- B. As part of the reasonable and prudent costs of obtaining approval for and implementing the Project, the Certificate Holder shall, subject to receipt of all necessary government approvals for the Project, provide funding to the New York City Economic Development Corporation (EDC) in the amount of \$2,500,000, of which \$1,700,000 shall be utilized in the development and implementation of air quality and public health improvement projects in and near the local Queens community in the vicinity of the Project and the remainder shall be used for air quality improvement, health improvement, and amenities projects in the vicinity of the Project. Projects to be funded by the \$1,700,000 air quality and public health improvement fund shall be identified by an advisory committee to consist of the Certificate Holder, the Queens Borough President, CHOKe, NRDC, NYPIRG, and DEC. Projects to be funded by the remaining \$800,000 shall be identified by the Queens Borough President and the Certificate Holder after consultation with other appropriate local officials. The \$2,500,000 payment to EDC shall be made within 3 years after the Project commences commercial operation.