

ENCLOSURE 7c TO NL-07-133

Indian Point SPDES Permit

ENERGY NUCLEAR OPERATIONS, INC.
INDIAN POINT NUCLEAR GENERATING UNIT NOS. 2 & 3
DOCKET NOS. 50-247 and 50-286

Indian Point SPDES Permit



SPDES Permit Timeline

1975 EPA Issues NPDES Permits requiring the installation of cooling towers
Hudson River Facilities request adjudicatory hearings.
Cooling tower mandates stayed

Adjudicatory process continues with no end in sight.

1980 EPA, NYSDEC, Hudson River Facilities and environmental groups enter into a 10 year agreement, Hudson River Cooling Tower Settlement Agreement (HRSA)

1982 NYSDEC issues SPDES Permits for the Hudson River Facilities

SPDES Permit Timeline

- 1987 NYSDEC again issues SPDES Permits for Hudson River Facilities
- 1988 NYPA & Con Edison execute agreement to install modified Ristroph Screens at IP2 and IP3
- 1991 Environmental groups bring suit following expiration of the HRSA
- 1992 Con Ed & NYPA file applications for renewal of the 1987 SPDES Permit for Indian Point

SPDES Permit Timeline

- 1992 NYS Supreme Court approve the “Consent Order” settlement of the 1991 lawsuit
- 1993 Consent Order Extended & Modified
- 1995 Consent Order Extended & Modified
- 1996 Consent Order Extended & Modified
- 1997 Consent Order extended through February 1, 1988

SPDES Permit Timeline

1999 Hudson River Facilities filed a Draft EIS with NYSDEC in connection with the renewal applications

2000 Entergy purchases Indian Point 3

2001 Entergy purchases Indian Points 1 & 2

2003 NYSDEC issued "Final" EIS for the Hudson River Facilities

Hudson River Facilities challenge FEIS

NYSDEC issues draft SPDES Permit for Indian Point

SPDES Permit Timeline

2004

NYS Supreme Court dismissed the case, finding that the FEIS was not 'final'

Draft Permit is still the subject of ongoing administrative proceedings within NYSDEC

Thermal Discharge Status

- The SPDES Permit and the monthly Discharge Monitoring Reports demonstrate compliance with the permit requirements
- Indian Point has not required a CWA 316(a) variance from NYS's water quality standards for thermal discharge. The variance is only needed if water quality standards cannot be met.

Thermal Discharge Status (continued)

- Thermal (cooling water) discharge for Indian Point is limited by the Special Conditions in the current SPDES Permit (p. 2 of 19)
- Permit limits include a maximum discharge temperature of 110 degrees F, and a maximum number of days from April 15 – June 30 that the daily average can exceed 93.2 degrees F

Thermal Discharge Status (continued)

- Entergy has agreed with NYSDEC to conduct a triaxial thermal study in the Hudson River as part of its next SPDES Permit to confirm that Indian Point is not causing a violation of water quality standards.

NOTES

- IP SPDES Proceedings entwined with Roseton (upriver) & Bowline (downriver)
- HRSA required dual/variable speed pumps, 'angled screens', seasonal outages, flow reductions, striped bass hatchery, biological monitoring program, funding independent research on HR.
- Consent Order continued provisions of HRSA except outages, hatchery, funding independent research and technologies already installed.
- 2004 NYS Supreme Court found that the FEIS was not 'final' – it would need to be updated & modified with actual issuance of a permit & the issuance of the FEIS was not a 'final agency action' that could be reviewed.

ENCLOSURE 8 TO NL-07-133

Documentation that Indian Point will conduct Triaxial Thermal Study

ENTERGY NUCLEAR OPERATIONS, INC.
INDIAN POINT NUCLEAR GENERATING UNIT NOS. 2 & 3
DOCKET NOS. 50-247 and 50-286

STATE OF NEW YORK: DEPARTMENT OF ENVIRONMENTAL CONSERVATION

In the Matter of a Renewal
and Modification of a
State Pollutant Discharge
Elimination System (SPDES)
permit pursuant to
Environmental Conservation Law
ECL) Article 17 and
Title 6 of the Official
Compilation of Codes,
Rules and Regulations of
the State of New York
(6 NYCRR) Parts 704 and
750 *et seq.* by

**Ruling on Proposed Issues
For Adjudication and Petitions
For Party Status**

DEC No.: 3-5522-00011/00004
SPDES No.: NY-0004472

Entergy Nuclear Indian Point 2, LLC
and Entergy Nuclear Indian Point 3, LLC,

Permittees.

February 3, 2006

Background

Entergy Nuclear Indian Point 2, LLC and Entergy Nuclear Indian Point 3, LLC (collectively referred to herein as "Entergy," or "Permittees") seek to renew a State Pollutant Discharge Elimination System ("SPDES") permit for the Indian Point nuclear powered steam electric generating stations (the "Stations"). The Stations are located on the east side of the Hudson River, at river mile 43, in the Village of Buchanan, Westchester County, New York. Indian Point 2, which commenced operations subject to a license issued by the Nuclear Regulatory Commission in 1972, has a capacity of 970 megawatts. Indian Point 3 was licensed by the Nuclear Regulatory Commission in 1976, and has a capacity of 980 megawatts.¹

Indian Point 2 and Indian Point 3 are equipped with separate cooling water systems that withdraw water from the Hudson River and discharge that water back to the River through a shared discharge canal (a "once-through" cooling system). The water is taken into the cooling system, circulates past the condenser coils to absorb waste heat from operation of the generation

¹ Indian Point 1 is also owned and managed by Entergy, but no longer generates electricity and will be decommissioned. Nevertheless, cooling and service water is still drawn through the Unit 1 intake.

equipment, and is discharged back to the River at a higher temperature than at the intake. The Stations withdraw up to 2.5 billion gallons of water per day from the Hudson River, through three intake structures on the shoreline. The heated non-contact cooling water is discharged to the River through sub-surface diffuser ports located along the seaward wall of the discharge canal, south of the intake structures.

Staff of the New York State Department of Environmental Conservation ("DEC" or "Department") issued a SPDES permit for the Stations in 1987. The permit was originally jointly issued to Consolidated Edison (the then-owner and operator of Unit 2) and the New York Power Authority (the then-owner and operator of Unit 3). In April 1992, Consolidated Edison and the New York Power Authority filed, pursuant to Environmental Conservation Law ("ECL") Section 17-0823, a timely renewal application with the Department. As a result, the Stations have continued to operate pursuant to the "safe harbor" provision of the State Administrative Procedure Act ("SAPA") Section 401(2).² In November 2000, the Indian Point 3 permit was transferred to Entergy Nuclear Indian Point 3. In September 2001, the Indian Point 2 permit was transferred to Entergy Nuclear Indian Point 2.

In 1975, the United States Environmental Protection Agency ("EPA") issued National Pollutant Discharge Elimination System ("NPDES") permits for the Indian Point facilities, as well as the Roseton and Bowline Point fossil fuel powered facilities. At that time, Central Hudson Gas & Electric ("CHG&E") operated the Roseton facility, and Orange and Rockland Utilities, Inc. ("O&R") was the owner of the Bowline power plant. The Roseton plant was jointly owned by CHG&E, Consolidated Edison, and Niagara Mohawk.

On December 19, 1980, the New York State Attorney General, the Department, EPA, Consolidated Edison, CHG&E, NYPA, and O&R, as well as other interested parties, entered into the Hudson River Settlement Agreement ("HRSA"). Since 1975, when EPA issued the NPDES permits, the signatories to the agreement had been

² Section 401(2) provides that

[w]hen a licensee has made timely and sufficient application for the renewal of a license or a new license with reference to any activity of a continuing nature, the existing license does not expire until the application has been finally determined by the agency, and, in case the application is denied or the terms of the new license limited, until the last day for seeking review of the agency order or a later date fixed by order of the reviewing court, provided that this subdivision shall not affect any valid agency action then in effect summarily suspending such license.

involved in adjudicatory hearings and subsequent negotiations with respect to, among other things, retrofitting cooling towers at the facilities. The HRSA was "a 10-year agreement designed to obtain necessary data, impose needed analytical assessments, and develop an impact assessment to determine how best to mitigate impacts to the Hudson River," and was intended to take into account the social, energy, economic and environmental issues in connection with the HRSA facilities' operations. June 25, 2003 Final Environmental Impact Statement, Issues Conference Exhibit (hereinafter "IC Exh.") 7, at 8. Through a series of judicial orders on consent,³ the HRSA process continued through the 1990s.

In May 1992, the Department, as lead agency, issued a positive declaration pursuant to the State Environmental Quality Review Act ("SEQRA"), ECL Article 8, with respect to the SPDES permit renewal application. Department Staff determined that the proposal is a Type I action, pursuant to Part 617 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York ("6 NYCRR"). A coordinated review was conducted and the Department determined that the project may have a significant adverse impact on the environment. Department Staff issued the positive declaration due to concerns about the impacts the HRSA facilities may have on Hudson River fish populations. The purpose of the positive declaration was to undertake a comprehensive environmental review of the potential adverse impacts and to assess reasonable mitigation measures.

The Department issued a Notice of Complete Application dated February 28, 2000, which was published in the Department's Environmental Notice Bulletin ("ENB") on March 8, 2000, and in newspapers in the vicinity of the Stations during the following week.

In 2002, certain petitioners, including the Hon. Richard L. Brodsky, an assemblyman in the New York State Legislature, commenced a proceeding in Albany County Supreme Court, pursuant to Article 78 of the New York Civil Practice Law and Rules ("CPLR"), to mandate action by the Department on the Indian Point SPDES permit renewal applications (Matter of Brodsky v. Crotty, Sup. Ct., Albany County, Keegan, J., Index No. 7136-02). On April 8, 2003, upon review of the renewal application, Department Staff proposed to modify the SPDES permit to require reduction of impacts to aquatic organisms and completion of a water quality

³ The First Amended Consent Order expired on September 1, 1994. The Second Amended Consent Order expired on September 1, 1995. The Third Amended Consent Order expired on September 1, 1997, and the Fourth Amended Consent Order expired on February 1, 1998.

review that would result in adjustments to certain limits in the existing SPDES permit. On May 14, 2003, the court issued an order that set a schedule requiring, among other things, that Department Staff complete the Final Environmental Impact Statement ("FEIS") for the Stations by July 1, 2003, and issue a draft SPDES permit for the Stations by November 14, 2003. The court's order also granted a motion by Riverkeeper, Inc. to intervene.

The Department accepted the FEIS on June 25, 2003. The FEIS described the project's "Potential Environmental Impacts" as follows:

The majority of impacts to aquatic organisms and habitat associated with intake structures from these facilities is closely linked to water withdrawals from the various waters in which the intakes are located. . . . The withdrawal of such quantities of cooling water affects large numbers of aquatic organisms annually . . . Aquatic organisms drawn into CWIS [cooling water intake structures]⁴ are either impinged on components of the CWIS or entrained in the cooling water system itself.

Impingement takes place when organisms are trapped against intake screens by the force of the water passing through the cooling water intake structure. This can result in starvation and exhaustion (organisms are trapped against an intake screen or other barrier at the entrance to the cooling water intake structure), asphyxiation (organisms are pressed against an intake screen or other barrier at the entrance to the cooling water intake structure by velocity forces which prevent proper gill movement, or organisms are removed from the water for prolonged

⁴ EPA has defined a "cooling water intake structure" as the total physical structure and any associated constructed waterways used to withdraw water from the waters of the United States, from the point at which water is withdrawn, up to and including the intake pumps. 66 Federal Register ("Fed. Reg.") 65259 (Dec. 18, 2001). The Agency has defined "cooling water" as water used for contact or non-contact cooling, including water used for equipment cooling, evaporative cooling tower makeup, and dilution of effluent heat content. See generally 65 Fed. Reg. 49071-4 (Aug. 10, 2000) and 66 Fed. Reg. 65262 (Dec. 18, 2001). Cooling water's intended use is to absorb waste heat from production processes or auxiliary operations. 66 Fed. Reg. 65262 (Dec. 18, 2001).

periods of time), descaling (fish lose scales when removed from an intake screen by a wash system), and other physical harms.

Entrainment usually occurs when relatively small benthic, planktonic, and nektonic organisms, including early life stages of fish and shellfish, are drawn through the cooling water intake structure into the cooling system. In the normal water body ecosystem, many of these small organisms serve as prey for larger organisms that are found higher on the food chain. As entrained organisms pass through a plant's cooling system they are subject to mechanical, thermal, or toxic stress. Sources of such stress include physical impacts in the pumps and condenser tubing, pressure changes caused by diversion of the cooling water into the plant or by the hydraulic effects of the condensers, sheer stress, thermal shock, and chemical toxemia induced by antifouling agents such as chlorine.

In addition to impingement and entrainment losses associated with the operation of CWIS, another concern is the cumulative degradation of the aquatic environment as a result of (1) multiple intake structures operating in the same watershed or in the same or nearby reaches, (2) intakes located within or adjacent to an impaired waterbody.

Issues Conference Exhibit (hereinafter "IC Exh.") 7, at 15-16 (citations omitted).

The FEIS goes on to note that historically, impacts related to CWIS have been evaluated pursuant to Clean Water Act ("CWA") Section 316(b) (33 United States Code Section 1326(b)) on a facility-by-facility basis. Section 316(b) of the statute requires that any standard established pursuant to Sections 301 or 306 of the Act and applicable to a point source discharge must require that the location, design, construction and capacity of the cooling water intake structures ("CWIS") reflect the "best technology available" for minimizing adverse environmental impact.

On November 12, 2003, Department Staff provided a draft permit for the Stations (IC Exh. 3A).⁵ The draft permit contains conditions which address three aspects of operations at Indian Point: conventional industrial-wastewater pollutant discharges, thermal discharge, and cooling water intake. Limits on the conventional industrial discharges are not proposed to be changed significantly from the previous permit. The draft permit does, however, contain new conditions addressing the thermal discharge and additional new conditions to implement the measures the Department has determined to be the best technology available ("BTA") for minimizing impacts to aquatic resources from the cooling water intake, including the installation of a closed cycle cooling system at the Stations.

In order to reduce mortality of fish and aquatic invertebrates, the Stations currently operate Ristroph modified traveling screens, a fish handling and return system, two-speed pumps in Unit 2, and variable speed pumps in Unit 3. With respect to thermal discharges, the draft SPDES permit would require Entergy to conduct a tri-axial (three-dimensional) thermal study to document whether the thermal discharges from Units 2 and 3 comply with State water quality criteria. If the Stations do not meet State standards, Entergy may apply for a modification of those criteria in an effort to demonstrate to the Department that such criteria are unnecessarily restrictive and that the requested modification would not inhibit the existence and propagation of a balanced indigenous population of shellfish, fish and wildlife in the River.

The Department has also determined that a closed-cycle cooling system is the site-specific BTA to minimize the adverse environmental impacts of the Units 1, 2 and 3 cooling water intake structures. Nevertheless, Entergy may propose, within a year of the permit's becoming effective, an alternative technology or technologies that can minimize adverse environmental impacts to a level equivalent to that achieved by a closed-cycle cooling system at the Stations.

In order to implement closed-cycle cooling, the draft permit would require Entergy to submit a pre-design engineering report within one year of the permit's effective date. Within one year after the submission of the report, Entergy must submit complete design plans that address all construction issues for conversion

⁵ At the issues conference, Department Staff provided a revised draft permit dated March 1, 2004 (IC Exhs. 11A, 11B, 11C, and 11D). The revisions addressed stenographic errors and other inaccuracies which were resolved between Entergy and Department Staff.

to closed-cycle cooling. In addition, the draft permit requires Entergy to obtain approvals for the system's construction from other government agencies, including modification of the Stations' operating licenses from the Nuclear Regulatory Commission. According to the fact sheet that accompanied the draft SPDES permit, the Department cannot require Entergy to seek extensions of its Nuclear Regulatory Commission licenses. If Entergy elects not to extend those licenses, or if the Commission denies a requested extension, the Department will not require closed cycle cooling at the Stations. The fact sheet stated that Entergy estimated that once construction begins, the conversion to closed cycle cooling will take nearly five years to complete.

While steps are being taken to implement BTA, Entergy would be required to schedule and take annual generation outages of no fewer than 42 unit-days during the peak entrainment season, between February 23 and August 23 of each calendar year. Under the terms of the draft SPDES permit, these fish protection outages must continue until closed cycle cooling is operational at the Stations. In addition, Entergy must continue to operate the existing fish impingement mitigation measures, including the Ristroph screens and the fish return system, and, to reduce entrainment, Entergy must reduce flows throughout the year according to a schedule specified in the permit. The draft SPDES permit would also require Entergy to continue to conduct long-term fish monitoring programs, and to pay \$24 million annually into an escrow account (the Hudson River Estuary Restoration Fund), from which the Department will draw funds for programs or projects intended to restore, protect or enhance Hudson River Estuary resources.

Proceedings

A notice dated November 12, 2003 (the "Notice"), announcing the public comment period and the availability of the draft permit, as well as providing notice of the legislative public hearing and issues conference, appeared in the Department's *Environmental Notice Bulletin* on November 12, 2003 and in the *Journal News*, the *Poughkeepsie Journal*, the *New York Times*, the *Middletown Times Herald Record*, and the *Kingston Daily Freeman* on November 14, 2003.

Legislative Public Hearings

As provided for in the Notice, administrative law judge ("ALJ") Maria E. Villa convened legislative hearing sessions on January 28, 2004 at 2:00 p.m. and 7:00 p.m., and on January 29, 2004 at 2:00 p.m. and 7:00 p.m. at the Esplanade Hotel in White

Plains, New York to receive unsworn statements from members of the public about the application materials and the draft SPDES permit. ALJ Daniel P. O'Connell also presided.

At each of the four sessions, representatives of Permittees and Department Staff made presentations. Eight persons spoke at the 2:00 p.m. session on January 28, including the Honorable Richard Brodsky, of the New York State Assembly. Mr. Brodsky discussed Matter of Brodsky v. Crotty, and stated that the Stations' withdrawal, use and discharge of water from the Hudson River damaged the resource. The Assemblyman went on to criticize the decision to defer implementation of closed cycle cooling for fifteen years, as provided for in the draft SPDES permit. In his remarks, Mr. Brodsky raised objections to the factual basis for Department Staff's determinations, and the legal sufficiency of the draft permit.

The next speaker, an Entergy employee and local resident named Vincent Coulehan, stated that over the years he had seen the water quality and fish population in the River improve, and maintained that attempting to retrofit cooling towers at the Stations would reduce the electrical output and ultimately result in a permanent shutdown. Mr. Coulehan said that electric reliability is of great concern, and that installing cooling towers would harm the environment by increasing air pollution. According to Mr. Coulehan, cooling towers would be unsightly, and would not provide measurable ecological benefits to the River.

Norris McDonald, the president of the African American Environmentalist Association ("AAEA"), was the next speaker. Mr. McDonald raised concerns with respect to the adverse environmental and health effects to be anticipated if the Stations were obliged to shut down. According to Mr. McDonald, the Stations are already using best available technology to prevent fish kills. He stated that the AAEA took the position that the recommendation that cooling towers be installed is expensive, unnecessary and would only lead to the Stations' closure.

Mr. McDonald went on to say that closure of the Stations would only shift air pollution to other areas of the State, specifically, minority communities, and thus would raise a significant environmental justice issue. This speaker questioned whether environmental justice considerations had been taken into account as part of Department Staff's review of the permit, and observed that if the appropriate review had not occurred, the AAEA would consider filing an environmental justice complaint with EPA. Mr. McDonald also maintained that closure of Indian

Point would result in compliance issues for the State with respect to the federal Clean Air Act State Implementation Plan ("SIP"), and emphasized that the Stations provided reliable energy without contributing pollutants that exacerbate asthma. According to Mr. McDonald, a balanced approach should be taken that would consider the environment, the health of minority communities, and the need to provide electricity for the metropolitan area. Mr. McDonald stated that the AAEA strongly opposes the recommendations in the draft permit, and asserted that closed-cycle cooling would not minimize environmental impacts because the owner of the Stations would probably close Indian Point rather than install the system recommended by Department Staff.

A third speaker and Entergy employee, Robert Licata, spoke in opposition to the installation of cooling towers, contending that polychlorinated biphenyls ("PCBs") are the primary pollutant of concern in the Hudson River, and are not attributable to the Stations. Mr. Licata asserted that the heated water that is returned to the River by once-through cooling has a beneficial impact on the fish population. This speaker expressed concern that changes at Indian Point could have far-reaching consequences for nuclear plants throughout the nation, and urged consideration of the effects of any decision on all segments of society.

Antonio Zoulis, who spoke next, referred to a letter he had written to the Wildlife Conservation Magazine, pointing out that the Stations' thermal discharge was strictly regulated and that there was no conclusive evidence that the Stations actually harmed fish populations. Mr. Zoulis argued that the most effective emission control strategy for utilities would be to increase nuclear generation, pointing out that nuclear energy accounted for about 72 percent of U.S. emission-free generation in 2000.

The final speaker, Elise N. Zoli, Esq., counsel for Entergy, responded to the remarks made earlier by Assemblyman Brodsky. Ms. Zoli took issue with the Assemblyman's characterization of the Court's order in Matter of Brodsky, pointing out that the Department voluntarily agreed to issue the SPDES permit by November 14, 2003. Ms. Zoli stated that Judge Keegan did not reach any conclusion as to the Stations' impact on the Hudson River or its fisheries.

Other than representatives of Permittees and Department Staff, no one appeared for the 7:00 p.m. session on January 28, 2005. Consequently, no comments from the public were received at that time. At the 2:00 p.m. session on January 29, ten persons

spoke. The first speaker, John Basile, is a board member of the New York Affordable Reliable Electricity Alliance ("AREA"). Mr. Basile stated that AREA's goal is to assure that the metropolitan area continues to have an ample and reliable supply of electricity at the lowest possible cost, noting that he was the plant manager at Indian Point from 1981 through 1988, and that he lives near the Stations.

According to Mr. Basile, the proposed cooling towers would be wasteful, unsightly, potentially dangerous, and would jeopardize the reliability of the power grid. In addition, Mr. Basile contended that air pollution would increase because replacement generation would be necessary to offset the loss of capacity at Indian Point should the Stations' owners conclude that the costs of cooling towers were too great to continue operating Indian Point. This speaker also pointed out that the costs of the cooling towers would be passed on to those who use electricity from the Stations, including area businesses, residents, and taxpayers. Mr. Basile expressed concern with respect to the effects of any reduced generation by Indian Point in light of the anticipated future increase in the need for electricity in the metropolitan area, and stated that AREA unequivocally opposed the proposed cooling towers.

Mr. Basile went on to say that non-nuclear generating plants would increase air pollution and energy costs, and argued that studies undertaken at a cost of \$50 million over the past thirty years have shown that power plants have no impact on fish in the Hudson River. According to Mr. Basile, requiring the installation of cooling towers makes no sense, because the number of fish in the River is greater than it has been in decades. Finally, Mr. Basile expressed concern with respect to the plume associated with cooling towers, which could produce ice clouds and rain, leading to hazardous driving conditions and potential damage to homes and other property. Mr. Basile argued that the cooling towers would be a visual blight and would reduce property values in the vicinity of the Stations.

Susan Shapiro, who was co-counsel with Assemblyman Brodsky in the Matter of Brodsky v. Crotty litigation, raised concerns about the continued operation of the Stations under permits last issued in 1992, and based upon technology that she contended has not been reassessed since 1982. Ms. Shapiro said that young fish are constantly caught in the Stations' water intake. Ms. Shapiro went on to criticize the draft permit provisions that would allow Entergy to wait for the renewal of its nuclear operating license, and then provide for a five-year construction period for closed-cycle cooling. According to Ms. Shapiro, the cost of the cooling

towers, and the time necessary for implementation, would be far less than Entergy projected.

Ms. Shapiro pointed out that the federal Clean Water Act requires facilities such as Indian Point to employ the best technology available to minimize adverse environmental impacts. Ms. Shapiro contended that the failure of the draft permit to mandate closed-cycle cooling, despite the identification of such a system as the best technology available, renders the draft permit largely ineffective and flies in the face of the Court's order. Ms. Shapiro stated that the Hudson River is a critical recreational and ecological resource, and that after so many years of delay, anything short of requiring closed-cycle cooling is a violation of the Clean Water Act. Ms. Shapiro referenced Governor Pataki's commitment to break the nexus between power plant generation and water withdrawal, and asserted that fifteen years is far too long to wait to implement the necessary retrofits. According to Ms. Shapiro, deferring that retrofit until Entergy obtains federal approval for a license extension from the Nuclear Regulatory Commission is untenable, and the Department is not responsible for protecting Entergy's profits.

Ms. Shapiro went on to state that the Department cannot continue to allow Entergy to operate the Stations in violation of the law, and contended that the Department had negligently failed to uphold the Clean Water Act. Finally, Ms. Shapiro raised concerns with respect to radiation levels in the vicinity of Indian Point.

The next speaker, David Gordon, is counsel to Riverkeeper, Inc. in this proceeding. Mr. Gordon said that once-through cooling systems have been cause for concern since the 1970s, referring to the adjudicatory hearings that took place at that time with respect to fish kills in the Hudson River and the HRSA facilities' impact on biota. Mr. Gordon emphasized that because the Clean Water Act requires the best technology available to minimize adverse environmental impacts, it is not necessary to show that catastrophic fish kills have resulted from the operation of power plants on the Hudson River.

Mr. Gordon noted that the adjudicatory hearings were inconclusive, and that ultimately the HRSA allowed for ten years of study in exchange for the Department not requiring cooling towers during that period. According to Mr. Gordon, the Stations were permitted to employ lesser measures to reduce impacts on the fish. Mr. Gordon stated that there is no longer any question that the fish kills are not environmentally benign, and that the FEIS reflects that fact.

Mr. Gordon pointed out that closed cycle cooling would cut water use at the Stations by approximately 97 percent. He asserted that the proposal to defer retrofits for fifteen years is unacceptable from a policy perspective and illegal from the perspective of the Clean Water Act. Mr. Gordon acknowledged that populations of certain species of fish in the Hudson River have recovered, but contended that this is a result of the fishing restrictions imposed due to PCB contamination in the River, as well as the ongoing cleanup of the River as a result of the Clean Water Act. This speaker stated that Department Staff have indicated that American shad, the tomcod and other fish species are at historic low levels.

Mr. Gordon went on to assert that cooling towers would not affect electric reliability in the Hudson Valley; rather, cooling towers would eliminate the need for forced outages, and result in only a marginal loss of efficiency, on the order of one to two percent. According to Mr. Gordon, Entergy's estimates of the costs to retrofit the Stations are inflated, because the retrofit can be performed much more efficiently and inexpensively than Entergy predicts. Mr. Gordon asserted that the cooling towers proposed are outdated, and that newer construction allows for towers only seventy feet in height, in an array of ten or fifteen in a row. Mr. Gordon contended that simply because Entergy had submitted plans calling for the most environmentally and economically destructive retrofit was no reason to take their cost estimates seriously.

According to Mr. Gordon, the towers would have no detrimental environmental effect, such as steam plumes, and noted that while Indian Point has installed some of the best intake screens available, those screens help only adult fish to survive, not the fish eggs and larvae. This speaker asserted that the impacts of the power plants on the younger fish population are extremely significant.

Mr. Gordon concluded his remarks by stating that there is no reason why Entergy's application for relicensing from the Nuclear Regulatory Commission cannot proceed during the five-year SPDES reauthorization period, and there is therefore no reason to defer implementation of closed cycle cooling until Entergy has secured its approvals from the federal agency. Mr. Gordon offered further remarks after other attendees spoke, contending that retrofit requirements would not cause the Stations to shut down. Mr. Gordon pointed out that Indian Point grosses \$2.3 million per day, much of which is profit, and asserted that a retrofit costing two to four hundred million dollars would not result in a shutdown of the Stations. With respect to air pollution, Mr.

Gordon stated that the State's energy grid is highly integrated, and argued that the loss of power from Indian Point would not significantly reduce the electric power supply. Moreover, according to Mr. Gordon, it is unclear where in the State any additional power would be generated, noting the difficulties inherent in locating fossil fuel plants downstate in heavily populated areas.

Vincent Coulehan, who spoke at the first session on January 28, 2004, also offered remarks at the 2:00 session on the following day. Mr. Coulehan took issue with Mr. Gordon's statements concerning the ease with which electricity can be moved throughout the State, and raised concerns about the expense of building cooling towers at the Stations, even if Riverkeeper's cost figures were presumed to be accurate.

Patricia Terry, an Entergy employee who resides in Mount Vernon, said that cooling towers would reduce the Stations' electrical output, because of unwarranted forced plant outages, which would decrease electric reliability and possibly lead to the shutdown of Indian Point. Ms. Terry asserted that the Stations are critical infrastructure in Westchester County, as well as in adjoining counties and New York City.

Ms. Terry pointed out that the plants are run at near capacity, using clean technology that emits no greenhouse gases or harmful particulates. She noted that the air quality in Westchester County received a grade of "F" from the American Lung Association. Ms. Terry stated that it was ludicrous for residents to give up their quality of life to protect fish eggs, and observed that the adult fish population in the River is thriving.

Donald Zern, who lives in the Village of Buchanan, said that he is an avid fisherman, and that the Hudson River has never been as clean as it has been in the last thirty years. Mr. Zern praised the quality of life in Buchanan, and said that if cooling towers were built, a cloud of pollution would kill shrubs, cause frost in the wintertime, and contribute carcinogens to the air.

James Knubel, of Entergy, spoke next, reading a statement from Bernard M. Molloy, who was unable to be present at the hearing. Mr. Molloy is the President of the Hudson Valley Gateway Chamber of Commerce, and stated that the organization is strongly opposed to retrofitting the Stations. According to Mr. Molloy, Indian Point is a major regional employer, and closure of the Stations would damage the region's economy significantly, depriving the area of skilled, well-compensated workers and \$35

million dollars annually paid by Entergy in local and payroll taxes.

Mr. Molloy also expressed concern about the effect any shutdown might have on electric supply and energy costs in the Region, noting that by State mandate, most municipal facilities and school districts in the region use lower-cost electric power generated at Indian Point 3. This speaker indicated that State energy experts predicted that a shutdown of Indian Point would increase the threat of blackouts fivefold because of potential power shortages. Mr. Molloy stated that cooling towers would have a negative impact on area viewsheds, and thus a detrimental effect on tourism and recreation-related businesses.

William Little, counsel for Department Staff, emphasized that the Stations had operated lawfully under the SAPA safe harbor provision since 1992, and noted that there is no provision for a fine in the permit but instead a provision for an escrow fund. Mr. Little stated further that Department Staff does not have the authority pursuant to the Clean Water Act to inquire into discharges of radionuclides from the Stations; rather, monitoring such discharges is the task of the Nuclear Regulatory Commission.

The final speaker, John Kelly, said that he is a retired Entergy employee who lives about four miles from Indian Point. Mr. Kelly's remarks focused on the issue of air pollution, and took issue with Mr. Gordon's characterization of the air pollution impacts that could be anticipated if the Stations were to close down. Citing a study prepared for Entergy by TRC Engineering, Mr. Kelly described the air pollution impacts as significant, noting that existing fossil fuel plants in depressed areas of the State would be needed to make up any shortfall.

At the 7:00 p.m. session on January 29, 2004, three persons spoke. The Honorable Daniel O'Neill, the Mayor of the Village of Buchanan, stated that the Stations benefit the environment and provide low-cost electric power. Without the Stations, according to the Mayor, electric rates in the area would increase by approximately forty percent, which would lead to loss of jobs and have a disproportionate impact on senior citizens and others on fixed incomes. Mayor O'Neill stated that he and virtually all other residents and workers in the Village oppose the proposal to require cooling towers at Indian Point. This speaker asserted that there is no evidence that adult fish in the Hudson River or other wildlife are harmed by Indian Point, noting that local fisherman had told him that fishing is better in the River than

it has been for decades, and contending further that other wildlife has made a comeback in the area.

The Mayor stated that cooling towers would create visual blight as well as a moisture plume that has the potential for health problems from airborne contamination. According to Mayor O'Neill, increased humidity from water with high salinity in the plume could damage trees and other flora. Moreover, the Mayor asserted that the waste generated from electric generation at the Stations is much less than that created by fossil fuel burning plants. Mayor O'Neill stated that if cooling towers were required, the Algonquin Gas Pipeline which runs through the site would have to be relocated, causing environmental and safety problems. The Mayor opined that those who support the cooling towers were in fact seeking to shut down the Stations altogether. He noted that contrary to some assumptions, the Village receives less than half of its revenue from the Stations, and emphasized that no one in the Village wished to sacrifice their health or the health of their loved ones in exchange for lower taxes. Finally, the Mayor stated that the Village would seek to enforce its zoning laws and other land use laws to prevent cooling towers from devastating the environment in the Village.

Mayor O'Neill was accompanied by James Siermarco, who spoke next. Mr. Siermarco, an engineer with a background in physics, serves as the official liaison between the Village and the Indian Point plant. Mr. Siermarco stated that he does not receive any compensation for this volunteer position, which involves, among other things, his review of technical information that arrives daily from the Stations. Mr. Siermarco expressed concern both with the visual impact of the proposed cooling towers, as well as the saline plume that would be created by the cooling operation and would fall on the Village and surrounding areas. According to Mr. Siermarco, a report prepared when cooling towers were contemplated some years ago indicated that ten percent of the flora in the area would be killed by such a plume. This speaker expressed concern that the plume would also contain PCBs from the Hudson River that would be deposited in the area.

Finally, Mr. Siermarco contended that the cooling towers would reduce the Stations' efficiency and increase utility rates. Mr. Siermarco pointed out that nuclear plants do not add to global warming, and that fossil fuel plants lead to increased rates of asthma as well as the potential for mercury contamination. Mr. Siermarco stated that the proposal that the Stations should be charged for the water used to cool the plants was absurd, pointing out that industry has used the Hudson River water since the 1700s for various manufacturing processes.

The last speaker, Andy Mele, stated that he is the executive director of Clearwater, a nonprofit environmental interest group located in Poughkeepsie, New York. Mr. Mele said that the cooling technology at Indian Point had not been reassessed by the Department since 1981. According to Mr. Mele, billions of fish in the larval stage are being killed by the Stations' operation every year, among them the short-nosed sturgeon, an endangered species, and the American shad, a species of concern. Mr. Mele indicated that shad are at their lowest known populations in history. The speaker stated further that striped bass are being killed at the rate of 46 million fish per year.

Mr. Mele asserted that scientists believe that the shad population in the Hudson River could double if not for the water withdrawn for cooling purposes at the Stations. The speaker went on to state that while the decrease in the shad population represents a relatively modest impact, striped bass mortality accounts for tens of millions of dollars annually in foregone revenue for Hudson River businesses and the enjoyment of the River by sports fishermen. According to Mr. Mele, one of the reasons for the high rate of mortality is the fact that the River is a tidal estuary, with tides and a relatively slow downstream flow that confines the larval fish or fish eggs within the area of the Stations, increasing the chances that the organisms will be swept into the cooling water intake structures. Mr. Mele stated that once the organisms are in the cooling intake system, thermal shock and shear forces kill virtually every fish.

Mr. Mele maintained that the notion that there is in fact an overabundance of fish in the Hudson River is spurious, pointing out that the fish are an important part of the complex food web in the estuary and offshore areas. Mr. Mele observed that because people value the intrinsic character of the Hudson River, not just its industrial or economic character, the River has become the economic engine of the Region. This speaker voiced support for the draft permit's determination that closed cycle cooling is BTA for the Stations, and noted that such a system would result in a 95 to 97 percent reduction in cooling water taken in from the River, with a comparable reduction in fish mortality. According to Mr. Mele, cooling towers are out of date, and low lying condensers, which are flat and have virtually no visual impact, should be installed instead. Mr. Mele contended that there is plenty of land to site such condensers at Indian Point.

Mr. Mele urged Department Staff not to presume that it must cushion the economic blow to Entergy, asserting that Entergy must have known when the company purchased the Stations that closed

cycle cooling might be required. Mr. Mele stated that a cost benefit analysis was not required under the Clean Water Act, and stated that his organization estimated the cost to be \$300 million, as opposed to Entergy's projected cost of \$1.5 billion. Mr. Mele argued that Entergy and the prior owners of the Stations had enjoyed a three-decade subsidy, and were able to operate the Stations at a much lower cost during that time.

This speaker also urged that the draft SPDES permit should not be coupled with the Nuclear Regulatory Commission license extension application, pointing out that the relicensing process will take many years. Mr. Mele characterized the draft SPDES permit as "an empty shell," because it does not contain any requirement for Entergy to change the cooling system during the initial five-year term. Legislative Hearing Transcript at 272. Finally, Mr. Mele argued that firm deadlines should be put in place, and that Entergy should be required to cover the costs of the adjudication and public participation.

Numerous written comments were received during the comment period, which closed on February 6, 2004. In general, the written comments expressed support for the draft permit provisions that would require closed cycle cooling, but objected to the length of time that Entergy would be allowed to continue operations before implementing such a system.

Issues Conference

As provided for in the Notice, the issues conference took place on March 3, 2004 at the Esplanade Hotel in White Plains, New York. As scheduled, ALJ Villa convened the issues conference at 10:00 a.m. on that day, and ALJ Daniel P. O'Connell also presided. The Notice outlined the requirements to file petitions for either full party status or amicus status, and set February 13, 2004 as the return date for these petitions.

With a cover letter dated February 13, 2004, Riverkeeper, Inc., Scenic Hudson, Inc., and the Natural Resources Defense Council ("NRDC") (collectively referred to herein as Riverkeeper) timely filed a joint petition for full party status. The African American Environmentalist Association ("AAEA") also filed a timely petition for party status.

On March 2, 2004, Mr. Brodsky submitted a late-filed petition for party status. No other petitions for party status or *amicus* status were received.

Representatives for Entergy, Department Staff, Riverkeeper and the AAEA attended the March 3, 2004 issues conference. Entergy was represented by Elise N. Zoli, Esq., Robert H. Fitzgerald, Esq., and Robert L. Brennan, Jr., Esq., of the law firm of Goodwin Procter, Boston, Massachusetts. Department Staff was represented by William Little, Esq., Associate Counsel, and Mark D. Sanza, Esq., Associate Counsel, both from the Division of Legal Affairs. David Gordon, Esq., appeared for Riverkeeper, NRDC, and Scenic Hudson, and Warren Reiss, Esq. also appeared on Scenic Hudson's behalf. The AAEA was represented by Norris MacDonald, that organization's President. Subsequent to the issues conference, by letter dated April 29, 2004, David C. Kuracina, Esq. of the law firm of Shanley, Sweeney, Reilly & Allen, P.C., of Albany, New York, notified the ALJ and the participants of his appearance on behalf of the AAEA.

Motion to Join NYS DPS

By letter dated February 20, 2004 (the "Motion"), Entergy moved for joinder of the New York State Department of Public Service ("DPS") "as an indispensable party to the Draft Permit adjudicatory proceeding." Motion, at 1. According to Entergy, absent DPS's participation as a party to the adjudicatory hearing, a full record would not be developed regarding DPS's opinions on the draft SPDES permit, particularly with respect to the draft permit's impacts on electric reliability, pricing and capacity. Entergy argued further that if DPS were to act only as Department Staff's "consultant," Department Staff would have "an opportunity to exert significant control over DPS's testimony," and that Entergy's right to discovery would be curtailed. Motion, IC Exh. 8, at 6.

Entergy expressed surprise that DPS had not filed for party status, pointing out that DPS had actively participated in plenary sessions that took place after issuance of the Draft Environmental Impact Statement ("DEIS"). Entergy argued that DPS's participation was required because of DPS's responsibility to ensure that the citizens of the State have access to reliable and low cost utility services. According to Entergy, absent DPS's involvement in this matter as a full party, DPS would be unable to "fully express its individual viewpoint in an unimpeded manner," and that the lack of such involvement would also create an appearance of impropriety. IC Exh. 8, at 3. Entergy contended that the Department and DPS's divergent mandates make DPS's independent participation a necessity, pointing to the provisions of the draft permit that would require forced outages. Entergy noted that while the Department seeks to impose such

outages to protect Hudson River biota, DPS's mission is to ensure a reliable electric supply.

At the issues conference, Steven Blow, Esq., Assistant Counsel from DPS, indicated that DPS had always intended to present testimony on areas on which DPS had consulted with the Department prior to issuance of the draft permit. Issues Conference Transcript (hereinafter "IC Tr."), at 17-18. Mr. Blow indicated that the question as to the nature and scope of DPS's participation in the hearing was raised with DPS senior management, and a determination was made that DPS would assist Department Staff. IC Tr. at 18. Mr. Blow went on to provide a brief description of certain topics about which DPS would provide assistance, including the multi-area production cost simulation ("MAPS") modeling which simulates the electric market, plant dispatch and the transmission system, as well as potential air emissions. IC Tr. at 18-19. Finally, Mr. Blow reiterated that DPS would be prepared to provide expert testimony, and would function as a consultant to Department Staff, not as a separate party. IC Tr. at 20-21.

Department Staff opposed the Motion, arguing as a threshold matter that the manner of service of the Motion was improper, as the Motion was served by telefacsimile only. This objection has been obviated because Entergy supplied hard copies to the participants at the issues conference. With respect to the substance of the Motion, Department Staff contended that the record of this proceeding would be complete even without DPS's independent participation, noting that DPS would, if necessary, submit testimony at the hearing. Department Staff pointed out that Entergy had made no application to the Public Service Commission for approvals for Indian Point, and asserted that any involvement by DPS in this proceeding is therefore committed to the Commission Chairman's discretion.

Department Staff noted that the Department's regulations provide for mandatory joinder only in water supply rate disputes, where there is a provision to compel a municipality to participate in a Department permit hearing. See 6 NYCRR Section 624.5(a). Department Staff argued further that no appearance of impropriety existed, and that Entergy had failed to establish that its discovery rights would be limited if DPS did not appear as a full party at the hearing.

Riverkeeper, NRDC and Scenic Hudson also objected to Entergy's Motion, pointing out that there is no provision for mandatory joinder in the Department's hearing regulations, and that DPS has no permitting jurisdiction over the approvals for

the Station's cooling systems. These petitioners asserted that there would be no threat of inconsistent rulings or duplication of effort if DPS's participation were not compelled, and argued further that compulsory joinder was not necessary to determine BTA for the Stations. According to the petitioners, Entergy has the resources to assess the State or regional energy markets to whatever degree Entergy deems necessary, and that Entergy has access to DPS's policy statements, data and expert analyses with respect to energy needs in the region. To the extent that Entergy seeks further information, petitioners note that Entergy may invoke the New York State Freedom of Information Law, Public Officers Law Article 6.

Moreover, these petitioners argued that the Motion assumes that DPS would advocate for a particular policy outcome, specifically, that energy reliability would be affected by the requirements set forth in the draft permit. According to petitioners, the Motion "dramatically overstates the minimal energy impacts of the draft permit," which petitioners assert will present little or no risk to State's electric power system. IC Exh. 10, at 8.

Entergy submitted a reply by letter dated March 3, 2004, which was provided to the participants at the issues conference. At that time, Entergy indicated that it was seeking leave to make this further submission. IC Tr. at 23. Riverkeeper and Department Staff objected. Leave to file the reply was granted in a memorandum dated March 5, 2004, and the reply will therefore be considered in this ruling.

In its reply, Entergy questioned the propriety of DPS's participation simply as a consultant, and stated that its position was "simply that, *to the extent DPS is going to participate in these proceedings, its participation should be full and robust, not artificially restrained by an unprecedented 'consulting' relationship which, if not improper on its face, certainly creates an appearance of impropriety.*" IC Exh. 13, at 1 (emphasis in original). Entergy asserted that DPS has jurisdiction over the Stations, and took issue with petitioners' minimization of the electrical system impacts to be anticipated if the draft permit's requirements were implemented. Entergy argued that its ability to obtain data and information from DPS did not obviate the need for the record to reflect DPS's independent interpretations of that data and its significance.

Under the circumstances, Entergy's Motion does not set forth a persuasive basis to joint DPS as a full party to this proceeding. The Department's hearing regulations do not provide

for mandatory joinder, and DPS has not sought to intervene in this proceeding. Research has not revealed any instances of permit hearings where participation by another agency has been compelled, nor is the ALJ's authority to do so set forth in the statute and regulations, except in water rate supply disputes, as noted above. Moreover, counsel for DPS has indicated that it will act in an advisory capacity, provide testimony, and participate in any adjudicatory hearing. The Motion is denied.

Rulings

Standards for Adjudication

The standards for adjudication in permit proceedings are set forth in 6 NYCRR Part 624. Specifically, an issue is adjudicable if:

(i) it relates to a dispute between the department staff and the applicant over a substantial term or condition of the draft permit;

(ii) it relates to a matter cited by the department staff as a basis to deny the permit and is contested by the applicant; or

(iii) it is proposed by a potential party and is both substantive and significant.

Section 624.4(c)(1)(i)-(iii). The "substantive and significant" standard applicable to issues proposed by those seeking party status was articulated by the Deputy Commissioner in Matter of Dynegy Northeast Generation, Inc., as follows:

[a]n issue is substantive if there is sufficient doubt about the applicant's ability to meet statutory or regulatory criteria applicable to the project, such that a reasonable person would require further inquiry. In determining whether such a demonstration has been made, the ALJ must consider "the proposed issue in light of the application and related documents, the draft permit, the content of any petitions filed for party status, the record of the issues conference and any subsequent written arguments authorized by the ALJ" (6 NYCRR 624.4[c][2]).

An issue is significant "if it has the potential to result in the denial of a permit, a major modification to the proposed project or the imposition of significant permit

conditions in addition to those proposed in the draft permit" (6 NYCRR 624.4[c][3]).

Interim Decision, at 12, 2005 WL 1177541, * 7 (May 13, 2005).

Entergy's Issues For Adjudication

At the issues conference, the participants discussed comments submitted by Entergy with respect to the draft permit. Those comments, marked as Issues Conference Exhibit 6, were divided into four parts. Section I dealt with "apparent stenographic errors and inadvertent oversights" which Entergy indicated had been resolved with Department Staff, but had not yet been incorporated into the draft permit. In Section II, Entergy identified a number of legal issues which Entergy contended should be briefed before the adjudicatory hearing.

Section III listed the issues that Entergy proposed for adjudication. In its comments, Entergy asserted that the issues identified were substantive disputes between it and Department Staff, including controversies over permit modifications proposed by Department Staff. According to Entergy, the comments were also provided in response to the Department's SEQRA determination in the FEIS. Section IV of the comments dealt with terms and conditions of the draft SPDES permit which Entergy stated required clarification from Department Staff. Each of the four sections is discussed below.

Section I of Entergy's comments addresses "apparent stenographic errors and inadvertent oversights" in the draft permit which Entergy believed had been resolved, and which Entergy described as follows:

1. Whether the Department correctly identifies the Permittees and the Stations in the Draft Permit?
2. Whether the Department incorrectly identifies the Discharge Monitoring Reporting contact for the Stations in the Draft Permit?
3. Whether the sampling method for Total Residual Chlorine in Outfall 001 required by the Draft Permit is appropriate?
4. Whether certain weekly calculations for and sampling of boron are appropriate?

5. Whether sampling for phosphates at Indian Point 3 is appropriate?
6. Whether the Draft Permit fails to appropriately include a service-water diagram for Indian Point 3?
7. Whether the Draft Permit inappropriately requires sampling floor drains for Total Suspended Solids and oil and grease?
8. Whether the Draft Permit should identify applicable legal procedures relating to the use of authorized biocides at the Stations?
9. Whether clarification of the Effective Date of the Permit is appropriate?
10. Whether the discharge limit associated with average daily discharge temperature at Outfall 001 requires clarification?

At the outset of the issues conference, the ALJ asked whether these errors had, in fact, been addressed. Department Staff indicated that the necessary corrections had been made, and provided the participants with a revised draft permit. IC Tr. at 24; IC Exhs. 11A-11D. Entergy indicated that these issues had been resolved. IC Tr. at 26.

Section II of Entergy's comments is captioned "Threshold Legal Issues." Entergy sought to brief these issues prior to the adjudicatory hearing. In the alternative, if briefing did not take place, Entergy requested that the issues be adjudicated.

1. Whether application of Section 704.5 [of 6 NYCRR] to an existing facility's discharges in a SPDES-permit renewal proceeding should incorporate EPA guidance, particularly the EPA's final Section 316(b) rule for existing facilities expected on February 16, 2004?
2. Whether the conditions of the Draft Permit requiring flow reductions and forced outages are authorized under Section 704.5?
3. Whether the "Additional Compliance Measures" in the Draft Permit that impose requirements to achieve the same result as the immediate installation of cooling towers are authorized under Section 316(b) or Section 704.5?

4. Whether, as a threshold matter, the Department must establish that the Stations' cooling water intake structures create adverse environmental impacts sufficient to trigger application of the best technology available requirement?
5. Whether the Department's efforts to modify the permit contravene settled legal principles limiting unilateral modification of permits at renewal?
6. Whether the Department may mandate closed-cycle cooling as a cooling water intake structure within the scope of Section 704.5?
7. Whether Section 704.5 properly may be applied to an existing, unmodified facility in the context of a SPDES permit renewal?

At the issues conference, Entergy indicated that it was willing to defer any briefing of Section II issues 2, 4, 5 and 6 until after the adjudicatory hearing. Riverkeeper and Department Staff took the position that briefing the remaining issues in advance of the adjudicatory hearing was unnecessary, and that briefing, if any, should be deferred until after the adjudication. After hearing argument by the participants at the issues conference, the ALJ advised the participants by memorandum dated April 23, 2004, that briefing of Section II issues 1, 3 and 7 would not take place in advance of the adjudicatory hearing.

Subsequently, however, with respect to issues 1 and 3, the participants were provided with the opportunity to comment on the applicability of EPA's Phase II rule (the "Rule") to the BTA determination once the Rule was published on July 9, 2004.⁶ By letter dated April 7, 2005, Entergy requested a ruling that the Phase II rule would be applicable to the Indian Point permit hearing, and additional submissions from the participants were received with respect to that request. Since that time, however, the Department's Deputy Commissioner has spoken to the question of the applicability of the Rule to existing facilities.

In Matter of Dynegy, *supra*, the Deputy Commissioner determined that briefing would not be permitted as to the applicability of the Rule to the Danskammer facility, because the Rule is not applicable to facilities whose SPDES permit renewal

⁶ See Final Rule: National Pollutant Discharge Elimination System - Final Regulations to Establish Requirements for Cooling Water Intake Structures at Phase II Existing Facilities, 69 Fed. Reg. 41576 (July 9, 2004).

applications were in process, or whose draft permit had issued, prior to the effective date of the Rule. Interim Decision, at 30-31, 2005 WL 1177541, * 21 (May 13, 2005). This reasoning applies to the Stations at issue in this proceeding. Accordingly, issues 1 and 3 will not be subject to further briefing.

Section II issue 7 has also been the subject of further proceedings following the issues conference. On April 19, 2004, Department Staff moved to dismiss Entergy's claim that Section 704.5 of 6 NYCRR was improperly and illegally promulgated. Section 704.5 provides that "[t]he location, design, construction and capacity of cooling water intake structures, in connection with point source thermal discharges, shall reflect the best technology available for minimizing adverse environmental impact." Entergy had argued that this provision is invalid because of a procedural defect in its promulgation, specifically that prior to the filing of the regulation with the New York Secretary of State, no public hearing was held.

In addition, Entergy and other owners of power plants located on or near the Hudson River challenged the validity of Section 704.5 on this basis in proceedings in Supreme Court, Albany County (see Matter of Entergy Nuclear Indian Point 2 LLC et al. v. NYSDEC, Kavanagh, J., Index Nos. 6747-03 and 6749-03). The court dismissed this challenge (Matter of Entergy, Decision & Judgment (Albany Co. Sup. Ct., Kavanagh, J., August 18, 2004), reargument denied (January 4, 2005)). The Interim Decision in Matter of Dynegy recites this history and states further that "[c]hallenges to the constitutional validity of the adoption of a Department regulation are within the province of the judicial branch, and are not within the jurisdiction of a Part 624 administrative hearing." Interim Decision, at 28, 2005 WL 1177541, * 19 (May 13, 2005). Entergy appealed Judge Kavanagh's decision to the New York State Appellate Division, Third Department, which affirmed the lower court's determination on November 10, 2005. Matter of Entergy Nuclear Indian Point 2, LLC et al. v. NYSDEC, 23 A.D. 3d 811, 2005 Slip. Op. 97809, * 5 (Nov. 10, 2005).

In light of these developments, there is no need to provide further opportunity for the parties to brief issue 7.

Section III of Entergy's comments identified the issues Entergy seeks to adjudicate in this proceeding. Pursuant to Section 624.4(c)(1)(i) of 6 NYCRR, an issue that relates to a dispute between Department Staff and an applicant over a substantial term or condition of a draft permit is adjudicable.

At the issues conference, Entergy and Department Staff agreed to engage in further discussion with respect to certain of the Section III issues in an effort to narrow or resolve them. By letter dated August 20, 2004, Entergy summarized the results of those discussions. The Section III issues, and any further refinements of those issues as set forth in the August 20, 2004 letter, are discussed in greater detail below.

1. **Whether, as a threshold matter, the Department has demonstrated that the Station's cooling water intake structures have caused an "adverse environmental impact," triggering the best technology available assessment under Section 316(b) and Section 704.5?**

At the issues conference, Entergy indicated that this issue relates to condition 28 in the draft SPDES permit, which would require Entergy to take steps to construct a closed cycle cooling system at the Stations due to the adverse environmental impact of cooling water withdrawals from the Hudson River. IC Tr. at 82. Riverkeeper raised concerns with respect to the scope of this issue, asserting that the hearing should focus on the means necessary to minimize impacts to biota, rather than demonstrating that such an impact exists. IC Tr. at 84-85. The AAEA took the position that it would be critical to define the scientific threshold for determining adverse environmental impact. IC Tr. at 85-86. Entergy referred to the permit's fact sheet, which Entergy argued set forth the Department's basis for the conclusions reached with respect to the impacts on biota, which Entergy disputes. IC Tr. at 88-89.

Although Entergy characterizes this as a "threshold" issue, the threshold is a low one. EPA has defined the term "adverse" in this context to mean "unfavorable, harmful, difficult, or detrimental."⁷ See Matter of Athens Generating Co., LP, Issues Ruling, at 25, 2000 WL 33341186, * 18 (Apr. 26, 2000). In Matter of Athens, ALJ O'Connell cited to a draft EPA guidance document⁸ (the "Guidance") that indicates that adverse impacts "would occur whenever biota were damaged as a result of entrainment or impingement as a result of the operation of a facility's cooling water intake structure." Id. While the Guidance states that "[t]he extent of fish losses of any given

⁷ In re Brunswick Steam Electric Plant, Initial Decision (Permit No. NC007064), EPA Region 4 (Nov. 7, 1977).

⁸ USEPA Office of Water, Guidance for Evaluating the Adverse Impact of Cooling Water Intake Structures on the Aquatic Environment: Section 316(b) PB 92-500 (Draft, 1977).

quantity needs to be considered on a plant-by-plant basis," and "some level of intake damage can be acceptable if that damage represents a minimization of environmental impact," once adverse impacts exceed some *de minimis* level, there is no precise threshold of significance which must be met before adverse impacts must be minimized by applying BTA. Guidance, at 3.

This issue relates to a dispute between Entergy and Department Staff with respect to the requirement that closed cycle cooling be installed at the Stations. As such, the issue of whether the Stations' cooling water intake structures may result in any adverse environmental impacts is adjudicable pursuant to Section 624.4(c)(1)(i).

2. **Whether the Department's site-specific determination that closed-cycle cooling is the best technology available for Indian Point 2 and Indian Point 3, provided both Stations are relicensed, fails to satisfy the applicable legal standard, or is otherwise arbitrary and capricious?**

At the issues conference, Department Staff asserted that this was, in fact, a legal issue, contending that closed cycle technology is a measure of performance for other facilities on the Hudson River. IC Tr. at 93. Riverkeeper asserted that the issue was appropriate for consideration at the hearing to the extent Entergy was asking to adjudicate whether closed cycle cooling is the best technology available to minimize adverse environmental impacts at Indian Point. IC Tr. at 94-95. The AAEA agreed that the issue was adjudicable. IC Tr. at 95. Entergy stated that it believed that Department Staff had not identified or supported its conclusion that a closed cycle cooling system is the best technology available. IC Tr. at 97. In addition, Entergy asserted that the Department had not accounted for the adverse effects of the proposed BTA to the electric system, air quality, and aesthetics.

This issue whether closed cycle cooling is BTA for the Stations relates to a dispute between Entergy and Department Staff with respect to a condition of the draft SPDES permit, and is therefore adjudicable pursuant to Section 624.4(c)(1)(i).

3. **Whether the Department has appropriately assessed the costs and benefits of its proposal in the Draft Permit?**

In its comments, Entergy noted that the FEIS identified potential impacts from the installation of cooling towers at the

Stations, including impacts to the electric system, aesthetics, and evaporative losses. IC Exh. 7, at 30-32. The FEIS states that "closed cycle systems do not come without impacts, and those potential impacts must also be weighed for each site." Id. at 30. The FEIS goes on to discuss losses of generating efficiencies under certain operating and climatic conditions, evaporative losses and plumes associated with wet or hybrid cooling towers, as well as the impacts on visual receptors. Id. at 31.

Entergy asserted that the draft SPDES permit contains no meaningful discussion of these adverse environmental impacts, nor does it address potentially significant impacts, as identified by the AAEA, "of a shift in power production from the Stations to existing fossil-fuel facilities as a result of the Department's proposal in the Draft Permit." IC Exh. 6, at 17. Entergy indicated that it is prepared to offer expert testimony concerning these anticipated impacts, and an appropriate cost/benefit assessment to account for the impacts of closed cycle cooling. Id. According to Entergy, at the adjudicatory hearing, it will establish that Department Staff failed to identify and account for all relevant adverse environmental impacts in issuing the draft SPDES permit.

At the issues conference, Department Staff asserted that the BTA determination does not depend upon a cost benefit analysis *per se*. Department Staff stated that it had taken cost into account, and had determined that the costs of closed cycle cooling were not disproportionate, particularly in light of reductions in fish entrainment at the site and the associated benefits to the ecosystem. IC Tr. at 98. According to Department Staff, once Entergy produces a design for the system, further review of impacts pursuant to SEQRA can be conducted. IC Tr. at 92. At present, the draft SPDES permit does not contain express provisions with respect to additional SEQRA review. Department Staff acknowledged that there was no way to avoid taking evidence at the adjudicatory hearing as to the costs of Department Staff's decision, but went on to ask that the issue be narrowly circumscribed to avoid a "fishing expedition" that would lead to questions not relevant to the Department's manner of assessing costs in this proceeding. IC Tr. at 99.

Riverkeeper expressed concern with any cost benefit analysis that might seek, in essence, to value the resource. IC Tr. at 101-02. Riverkeeper argued that the Clean Water Act requires that the cost of the proposed system not be wholly disproportionate to its benefits, which Riverkeeper contended does not amount to a cost benefit analysis. IC Tr. at 102.

Entergy asserted that the appropriate standard must first be determined, after which adjudication should take place as to whether Department Staff's determination satisfied that standard. IC Tr. at 105-06.

This issue will be adjudicated. The appropriate standard is whether the costs of a closed cycle cooling retrofit are wholly disproportionate to the environmental benefits to be gained, compared to other available alternative technologies. See Matter of Dynegy, supra, Interim Decision, at 14, 2005 WL 1177541, * 9; Matter of Dynegy Northeast Generation, Inc., Ruling on Issues and Party Status, at 18, 2004 WL 715397, * 16 (March 25, 2004).

4. **Whether the Department can require the acquisition of property interests from third parties in order to accommodate the construction of cooling towers at Indian Point?**

At the issues conference, Entergy cited to condition 28(b) in the draft SPDES permit, pointing out that the condition would require Entergy to address the potential relocation of a portion of the Algonquin natural gas pipeline. IC Tr. at 110. Entergy noted that the pipeline crosses the Indian Point site within an exclusive easement in favor of the pipeline's owner, and that the easement does not convey any right to construct cooling towers at that location. IC Exh. 6, at 18. According to Entergy, in order to relocate the pipeline Entergy may find it necessary to acquire third party property interests. IC Tr. at 111; IC Exh. 6, at 18.

Department Staff pointed out that it had not asked Entergy to acquire property that Entergy did not already own. Rather, according to Department Staff, the inquiry was limited to whether the Algonquin natural gas pipeline that crosses the site must be moved in order to construct a cooling tower at Indian Point. IC Tr. at 107. Riverkeeper asserted that Entergy's proposed closed cycle cooling design is not the best closed-cycle cooling choice for the Stations for a number of reasons, the least of which would be the need to relocate the pipeline. IC Tr. at 107. Riverkeeper indicated that its expert was prepared to speak to various alternative proposals, which would not necessitate the pipeline's relocation. IC Tr. at 107-08.

A similar issue was raised in Matter of Dynegy, supra. In that proceeding, the Deputy Commissioner determined that "a private applicant is not required to consider parcels owned by separate and independent entities to meet the BTA standard." Interim Decision, at 15, 2005 WL 1177541, * 9. Nevertheless, BTA determinations are conducted on a case-by-case, site-specific

basis. Id. (citations omitted). The factual circumstances in this proceeding differ from Matter of Dynegy, where the petitioners argued that an adjoining parcel not owned by the permittee should be acquired in order to accommodate a cooling tower array at the facility. The proposed issue in this proceeding implicates a property right or easement on or within a parcel owned by Entergy. It is premature at this point to exclude this issue from adjudication to the extent that the acquisition of any third-party property interest must be taken into account in determining whether a specific cooling tower configuration can be sited at a particular location at Indian Point. The issue to be adjudicated is whether cooling towers can be sited at the Stations, assuming that Entergy's design is adopted, in light of the expense associated with moving the Algonquin pipeline. This issue is to be considered in the context of the wholly disproportionate analysis.

5. Whether closed-cycle cooling is an available technology for an existing nuclear station comparable in size and configuration to the Stations?

In its comments, Entergy asserted that Department Staff had not identified any instance where retrofitting an existing nuclear station of similar size and configuration from open to closed cycle cooling had been required or accomplished. IC Exh. 6, at 19. According to Entergy, such retrofitting is untried, and should not be considered available for the Stations. Id. At the issues conference, Department Staff maintained that the Palisades nuclear generation facility in Michigan had been the subject of a successful retrofit. IC Tr. at 112. Riverkeeper argued that Entergy's concerns were not well-founded, and that Riverkeeper's consultants were prepared to demonstrate the feasibility of closed-cycle cooling at the Stations. IC Tr. at 113-14.

Entergy stated that the Palisades conversion was not, in fact, a "true" retrofit, because it took place on the eve of construction, and also cited to the EPA Rule which stated that the empirical data base of four retrofits is not representative. IC Tr. at 116-117. In the preamble to the Phase II Rule, EPA agreed with comments asserted that the data base EPA used to compare cooling tower retrofit costs and engineering characteristics "could be too narrow a set from which to develop national costs that would be applicable to a wide range of facilities." Phase II Rule, 69 Fed. Reg. at 41605. The Rule goes on to state that "EPA believes that it is significant that so few existing facilities retrofitted to [closed cycle cooling]. The rarity of this technology as a retrofit further indicates

that it is not economically practicable for the vast majority of existing facilities." Id. at 41606.

This issue relates to a dispute between Entergy and Department Staff with respect to the requirement that closed cycle cooling be installed at these nuclear power generation Stations. As such, the issue is adjudicable pursuant to Section 624:4(c)(1)(i).

6. Whether the Department's determination that the costs of cooling towers over an extended license period are not "wholly disproportionate" fails to satisfy the legal standard, and is otherwise arbitrary and capricious?

Entergy's arguments with respect to this issue are similar to those raised in connection with issue 3. Specifically, Entergy asserted that it is necessary to adjudicate whether the "wholly disproportionate" standard should apply, or whether Department Staff should have employed the so-called "significantly greater" standard articulated in the Rule. According to Entergy, EPA has determined that in order to account for adverse impacts and the higher costs of retrofitting, BTA should not be required if its costs would be "significantly greater" than the benefits to be realized.

Entergy's comments indicated that in the draft SPDES permit, Attachment B, Section 3D, Department Staff concluded that cooling tower costs for the Stations would represent 5-6% of Indian Point's annual gross revenues, and are not "wholly disproportionate." IC Exh. 6, at 19. Entergy argued that even if the "wholly disproportionate" standard were applied, Department Staff's methodology in concluding that the costs of a retrofit at the Stations are acceptable is flawed, and that reliance on the comparison of costs to gross revenues is improper. IC Tr. at 119.

At the issues conference, Department Staff asserted that the applicable standard was a legal question more appropriate for briefing. IC Tr. at 117-18. Entergy responded that the application of the appropriate methodology was a factual question and subject to adjudication, particularly the cost to gross revenues comparison. IC Tr. at 119-120. Riverkeeper reiterated its concerns with respect to any valuation of the Hudson River, and maintained that the question Entergy raised was whether the Department has properly applied the legal standard. IC Tr. at 121-22.

As discussed above in connection with Section III, issue 3, the "wholly disproportionate" standard will be applied in this proceeding, and the specific issue to be adjudicated is whether the costs associated with retrofitting the Stations with a closed cycle cooling system are wholly disproportionate to the environmental benefits to be gained, compared to other available alternative technologies. This issue will be adjudicated accordingly.

7. **Whether a forced outage at Indian Point fails to satisfy the legal standard, is otherwise arbitrary and capricious, and constitutes a temporary taking subject to compensation under the Fifth Amendment, as incorporated through the 14th Amendment, of the Constitution of the United States?**

In its comments, Entergy argued that Station operations have not resulted in an adverse environmental impact on the Hudson River's fish populations. IC Exh. 6, at 20. Entergy stated that it was prepared to provide expert testimony on the costs associated with compliance with the forced outages that would be required pursuant to Condition 26, as well as the adverse environmental impacts, "both in absolute terms and in relation to a typical refueling outage." *Id.* Entergy went on to contend that a forced outage at Indian Point 2 or Indian Point 3 "temporarily deprives Entergy of all economically beneficial use of its property for the purportedly public purpose of reducing impacts to fish in the Hudson River," and indicated that Entergy was prepared to provide expert testimony on the economic impact of the forced outage requirements to support its claim that it is entitled to compensation for forced outage periods. *Id.*, at 21.

At the issues conference, Department Staff stated that forced outages are derived from a HRSA condition, and are an interim measure rather than a BTA measure *per se*. IC Tr. at 124-25. Department Staff went on to say that the Department is authorized to employ such interim measures to reduce the environmental impacts of a facility while restoration or retrofitting is ongoing. IC Tr. at 125. Department Staff also cited to the provisions of the Rule and the Second Circuit's decision in Riverkeeper, Inc. v. USEPA, 358 F.3d 174 (2d Cir. 2004) for the proposition that EPA (and, by extension, the Department) have the authority to implement Section 316(b) of the Act without compensating regulated entities for the taking of property. IC Tr. at 130-131.

Riverkeeper took the position that outages in and of themselves are not optimal, and not a solution for the long term. IC Tr. at 127-28. Riverkeeper also stated that the outage requirements in the draft SPDES permit have been relaxed from those in the existing permit. IC Tr. at 128. Petitioners argued further that reasonable regulation for the purposes of generating power is appropriate and cannot give rise to a takings claim, which cannot be heard in this forum in any case. IC Tr. at 129-130.

Entergy asserted that condition 26 of the draft SPDES permit, which would require forced outages, is a substantial condition of the permit that Entergy disputes. IC Tr. at 132. Consequently, Entergy argued that the provision must be adjudicated. *Id.* Entergy also took issue with Department Staff's interpretation of the Rule, contending that the Rule does not require a facility to comply by reducing intake to a level consistent with closed cycle cooling, but instead allows a facility to choose among various options that would not, in Entergy's view, constitute a taking. IC Tr. at 133.

Riverkeeper's contention that this issue cannot be addressed in this forum because of the constitutional implications raised by Entergy is not supported by relevant precedent. Although challenges to the facial validity of a directive are properly committed to a court of competent jurisdiction, constitutional objections to the application of such directive "must first be raised at the administrative level or they are not available to attack the determination in subsequent judicial proceedings." Matter of Celestial Food Corp. v. NYS Liquor Auth., 99 A.D.2d 25, 27 (2nd Dept. 1984) (holding that attorney affidavits *dehors* the administrative record should not have been considered by Special Term and must be disregarded on appeal) (citations omitted). The court in Matter of Celestial Food Corp. went on to amplify its holding in a footnote, stating that "any claim which turns upon the facts of the particular case must first be raised at the agency level irrespective of whether or not it is dressed in constitutional garb." *Id.* (citing Young Men's Christian Ass'n. v. Rochester Pure Waters Dist., 37 N.Y.2d 371, 375-76 (1975) (while constitutionality of a Labor Law provision could be asserted in the first instance in a judicial proceeding, a claim that the statute was being unreasonably interpreted must be raised at the administrative level); see Matter of Robert's v. Coughlin, 165 A.D.2d 964, 965-66 (3rd Dept. 1990) ("a constitutional challenge thus hinging upon factual issues reviewable at the administrative level should initially be addressed to the agency so that the necessary factual record can be established") (citations omitted).

Accordingly, a record will be developed during the adjudicatory hearing with respect to this issue, which relates to a substantial condition of the draft SPDES permit, and is therefore adjudicable pursuant to Section 624.5(c)(1)(i) of 6 NYCRR. The issue to be adjudicated is whether planned fish protection outages, which would limit the amount of water withdrawn with corresponding effects on the Stations' capacity, are an appropriate interim measure during the design and construction phases of closed cycle cooling implementation at the Stations.

8. Whether the Department's proposed flow reductions at Indian Point fail to satisfy the legal standard, and are otherwise arbitrary and capricious?

As was the case with issue 7, Department Staff took the position that this is in fact an interim measure that is not specific to the BTA determination for the Stations. IC Tr. at 135-36. Entergy countered that interim measures are adjudicable in a permit proceeding, contending that the factual issue to be considered is the propriety of the flow restrictions to reduce or mitigate environmental impacts, in light of the implications for electric system reliability, pricing, and air quality. IC Tr. at 138-39. According to Entergy, the reductions implicate conditions 6 and 26 of the draft SPDES permit, for which it asserts Department Staff has offered no justification. IC Exh. 6, at 21.

Entergy argued that while Department Staff has asserted that the loss of eggs and fish larvae are of some magnitude, it has not shown that the permit condition is warranted because Department Staff has not concluded that such losses have had an adverse effect on fish stocks in the River. In its comments, Entergy states that it is prepared to offer expert testimony to support its contention that any reductions in impingement and entrainment will provide no benefit to fish stocks in the River. Entergy takes the position that conditions 6 and 26 should be stricken from the permit, and the Stations should be authorized to continue to operate using the flow restrictions in the existing permit.

This issue relates to a dispute between Entergy and Department Staff with respect to a substantial permit condition, and is therefore adjudicable pursuant to Section 624.5(c)(1)(i). The issue to be adjudicated is whether flow reductions, which would limit the amount of water withdrawn with corresponding effects on the Stations' capacity, are an appropriate interim

measure during the design and construction phases of closed cycle cooling implementation at the Stations.

9. Whether Special Condition 7.b., requiring a tri-axial study "to delineate the 90-degrees Fahrenheit isopleths at various depths and stages of tide" fails to satisfy the legal standard, is otherwise arbitrary and capricious, and inconsistent with the criteria of 6 NYCRR Section 704.2(a)(5)?

Entergy's comments argued that Department Staff's determination to require a thermal study was unfounded, because existing modeling shows that the Stations already comply with the mandates of Section 704.2(b)(5). IC Exh. 6, at 22. That provision states as follows: "Estuaries or portions of estuaries. (i) The water temperature at the surface of an estuary shall not be raised to more than 90 degrees Fahrenheit at any point."

According to Entergy, the DEIS modeling on which Department Staff relied in formulating the permit condition assumes a scenario where all of the power plants on the Hudson River would be operating at full capacity, a situation that Entergy contends never occurs. IC Exh. 6, at 22. Entergy argued further that the regulations address temperature requirements for surface water only, rather than the thermal characteristics of the Hudson at various depths that the study would reveal. Id. Because of this, Entergy argued that the Special Condition 7.b. in the draft SPDES permit must be adjudicated.

At the issues conference, Department Staff explained that the study would consist of an in-water, in-stream analysis on three axes: vertical, horizontal and longitudinal. IC Tr. at 142. Department Staff requested the study, in part, to verify the results of the CORMIX model referenced in the DEIS. Id. According to Department Staff, conducting the survey would permit such verification and also would allow for more accurate characterization of in-stream conditions. IC Tr. at 142-43. With respect to Entergy's arguments concerning the full capacity operation assumption, Department Staff pointed out that it is obliged to regulate based upon a worst-case scenario. IC Tr. at 144.

Riverkeeper took the position that the Stations' compliance with water quality standards is not a foregone conclusion, and supported the permit condition mandating that the study be performed. IC Tr. at 145. Entergy reiterated its argument that there is no need to perform the study to determine compliance

where compliance has already been established. IC Tr. at 148. Entergy indicated that it was prepared to propose an alternative study to demonstrate that the Stations meet the thermal criteria. IC Tr. at 150.

This issue relates to a dispute between the Applicant and Department Staff with respect to a substantial permit condition. As such, the issue is adjudicable pursuant to Section 624.4(c)(1)(i). The inquiry at the hearing will be confined to the methodology to be employed to establish the Stations' compliance with the requirements of Section 704.2 of 6 NYCRR.

10. **Whether the Department appropriately should require Entergy to conduct River-wide biological monitoring, and if so, whether the Department appropriately should require Entergy alone to bear the cost of such monitoring, which historically has been financed by a consortium of station owners?**

Entergy's comments noted that draft permit condition 25 would require the Stations to conduct annual surveys of specific aquatic species in the Hudson River. IC Exh. 6, at 23. Entergy objected to this requirement, in light of the extensive data already in existence that was collected by the Stations and the Bowline and Roseton facilities over the past thirty years. Id. at 24. Entergy stated that those studies should continue to be performed by a consortium of power generation station owners, and maintained that the draft permit should be modified so that the obligation to conduct such surveys would not fall solely on Entergy. Id.

During the issues conference, Department Staff clarified that the survey would be funded in a manner to be decided by the facilities. IC Tr. at 153. Entergy and Department Staff agreed to discuss this matter further. IC Tr. at 155-56, 232. By letter dated August 20, 2004, Entergy advised that it had proposed revised language to Department Staff, and that Department Staff's response expressed reservations as to whether the revision, as proposed, would inappropriately bind other generators. Department Staff suggested further revisions, and Entergy indicated that the parties might be able to reach agreement following additional negotiations. Department Staff submitted a letter on that same date, advising that it was still open to further discussion on this topic.

By letter dated September 22, 2005, Department Staff advised that it had been unable to reach agreement with Entergy as to

condition 25, and that Entergy would therefore pursue its challenge to that provision. Accordingly, this matter is advanced to adjudication at the hearing.

11. Whether the Department inappropriately omitted from the Draft Permit provisions recognizing the emergency use of equipment and operation of the Stations?

In its comments, Entergy noted that draft SPDES permit did not include emergency provisions, "including those accounting for nuclear safety and electric-system concerns." IC Exh. 6, at 24. Entergy stated that EPA's rulemaking recognized the primacy of the Nuclear Regulatory Commission with respect to nuclear safety issues, and observed that in the HRSA, the Department acknowledged "the appropriateness of emergency provisions allowing the Stations to provide needed electricity." *Id.*

Department Staff pointed out that condition 22 of the draft permit contains a *force majeure* provision, and took the position that the permit was not intended to encompass requirements imposed by other agencies. IC Tr. at 157. Department Staff also emphasized that it retains prosecutorial discretion in the event of an emergency that would require the Stations to operate in a manner inconsistent with the permit. *Id.* At the issues conference, Entergy and Department Staff agreed to discuss this issue further in an effort to resolve the matter. IC Tr. at 232.

In the August 20, 2004 letter, Entergy indicated that it had been unable to agree with Department Staff with respect to this question, and that the omission remained in dispute. As a result, Entergy requested that the issue be adjudicated. Department Staff's August 20, 2004 letter confirmed that a resolution could not be reached. Consistent with Section 624.4(c)(1)(i), this issue will be adjudicated.

12. Whether the Department has appropriately implemented SEQRA initially and in its efforts to unilaterally modify the Existing Permit?

In its comments, Entergy contended that, at the outset, Department Staff's decision to trigger SEQRA upon receipt of the Station's renewal application was inappropriate, and that the SEQRA proceeding was *ultra vires*. IC Exh. 6, at 24. Entergy challenged the sufficiency of the FEIS, including the issuance of the FEIS prior to the Department's decision on the permit. *Id.* According to Entergy, the SPDES permit renewal should have been classified as a Type II action for which no Environmental Impact

Statement was required. IC Exh. 6, at 25. Entergy went on to argue that Department failed to satisfy the "hard look" requirement of SEQRA, because Department Staff did not take into account the impacts of cooling towers on aesthetics, air quality, and the electric system. IC Exh. 6, at 25-26. Moreover, according to Entergy, Department Staff did not make necessary SEQRA findings or consider adequately the cumulative impacts of all power generating facilities on the Hudson River. IC Exh. 6, at 26-27.

At the issues conference, Department Staff noted that Entergy had sought judicial review of the SEQRA process with respect to the Stations, and urged deference to that process. IC Tr. at 165-66. Riverkeeper concurred. IC Tr. at 166-67.

The sufficiency of the SEQRA review in this case was the subject of litigation in Supreme Court Albany County (Matter of Entergy Nuclear Indian Point 2, LLC v. NYSDEC, Keegan, J., Index No. 6747-03). On March 3, 2004, Justice Keegan issued a Decision and Order noting that the environmental review was not complete. Matter of Entergy Nuclear Indian Point 2, LLC v. NYSDEC, 3 Misc. 3d 1070, 1073-74 (Sup. Ct. Alb. Co. 2004). The court concluded that there had been no final agency determination subject to judicial review, and granted a motion to dismiss the causes of action which challenged the FEIS on the merits, without prejudice to any further proceedings challenging the final permit determination on SEQRA grounds. Id. at 1074. On August 20, 2004, Justice Kavanagh, to whom the case had been re-assigned, issued a Decision and Judgment in Matter of Entergy, Index Nos. 6747-03 and 6749-03. Among other things, the court dismissed Entergy's claim that the Department failed to make appropriate SEQRA findings. Decision, at 5.

Whenever the Department as lead agency, has required the preparation of a DEIS, Section 624.4(c)(6)(i)(b) provides that "the determination to adjudicate issues concerning the sufficiency of the DEIS or the ability of the department to make the findings required pursuant to section 617.9 of this Title will be made according to the standards set forth in paragraph (1) of this subdivision." Paragraph (1) sets forth the standards for adjudicable issues.

In this case, Department Staff prepared an FEIS pursuant to the Court's order. The permit hearing regulations are silent as to the conduct of an adjudicatory hearing where an FEIS has been prepared by the Department, and the FEIS relevant to this proceeding acknowledges that further amplification will be necessary in that "[b]efore issuing a final decision on each of

the applications, the Department will be required to make findings based on this FEIS concluding whether, among other tests, the selected alternative(s) will minimize or avoid adverse environmental impacts, 'to the maximum extent practicable.'" IC Exh. 7, at 28 (citing ECL 8-0109(1)). No written findings statement pursuant to Section 617.11 has been issued. Moreover, Section 621.15(b) ("Special provisions") states that "[a]t any time during the review of an application for a new permit, modification, or renewal, the department may request in writing any additional information which is reasonably necessary to make any findings or determinations required by law."

In light of this unique procedural context, it is appropriate at the hearing to consider the questions articulated in Entergy's comments with respect to this proposed issue, specifically, the impacts on aesthetics, air quality, and the electric system as a result of the installation of cooling towers at the Stations. The inquiry at the hearing will be limited to these three topics, which have been raised by Entergy in the context of other issues (see IC Exh. 6, at 16-17 (Section III, issues 2 and 3)). As noted earlier, Issue 2 would adjudicate the Department's BTA determination for the Stations with respect to the alleged significant adverse impacts of the proposed cooling towers on the electric system, air quality, and aesthetics. Issue 3 would allow for inquiry into the Department's cost/benefit assessment in reaching the BTA determination, including consideration of adverse effects on regional viewsheds, air quality or the electric system, as well as a shift in power production from the Stations to existing fossil-fuel fired facilities.

13. Whether the Department's permit condition regarding Ristroph screens is appropriate?

The August 20, 2004 letter stated that Entergy and Department Staff had agreed upon revised language for this permit condition, thus eliminating the need to address this issue, and issue 4 in Section IV of Entergy's comments. Therefore, this issue will not be adjudicated.

Finally, Section IV of Entergy's comments listed "Requests for Clarification," as follows:

- 1. Clarification of the draft permit provision requiring compliance with the terms of the permit and 6 NYCRR is required to eliminate needless uncertainty.**

In its comments, Entergy contended that the draft SPDES permit was ambiguous, and requested clarification of references to Part 750 that it contended implied that all provisions of Part 750, in addition to the specified permit conditions, were applicable to the discharges at the Stations.

At the issues conference, Entergy stated that this request for clarification had been resolved by the revisions to the draft SPDES permit. IC Tr. at 173. Accordingly, there is no need for further treatment of this request.

2. Clarification of the calculation of figures contained in Condition 29.

Entergy's comments requested clarification from the Department of the method employed to calculate the \$24 million figure in Condition 29. Condition 29 would require Entergy to pay that amount into the escrow account established for the benefit of the Hudson River Estuary Restoration Fund. Those monies are to be made available to the Department to administer programs or projects within the Hudson River Estuary "designed to restore, enhance or protect aquatic habitats, fish species, or the quality of Hudson River Estuary waters." IC Exh. 11B.

In a submission dated April 7, 2005, Entergy requested that this condition of the draft SPDES permit be stricken, arguing that this requirement is a BTA provision and conflicts with the court's determination in Riverkeeper, Inc. v. USEPA, 358 F.3d 174 (2d Cir. 2004). In support of its arguments, Entergy pointed to correspondence dated January 24, 2005 from the Department's Deputy Commissioner for the Office of Natural Resources to the USEPA Office of Water. According to Entergy, "the Department expressly has rejected restoration programs as unlawful, consistent with the direction of the Second Circuit Court of Appeals." Entergy's April 7, 2005 submission, at 3.

Both Department Staff and Riverkeeper took issue with Entergy's arguments. According to Department Staff, Condition 29 is not a BTA requirement, nor is it a substitute for BTA measures required by 6 NYCRR Section 704.5. Rather, Department Staff argued that Condition 29 is an interim measure intended to address the need to reduce or eliminate adverse environmental impacts as a result of operations at the Stations. Department Staff asserted that this is consistent with its authority pursuant to SEQRA to require "a temporary, non-BTA mitigative measure, only applicable during the interim period before the BTA condition is triggered by construction of cooling towers at

Indian Point." Department Staff's April 19, 2005 submission, at 4.

Department Staff pointed out that Indian Point withdraws significantly more cooling water from the Hudson than any other facility or municipality, and contended that Condition 29 "attempts to compensate for continuing adverse impacts to the Hudson River fishery identified by, among other things, in-plant studies of entrainment and impingement, and annual surveys compiling Hudson River fishery data." *Id.* Riverkeeper concurred, asserting that Department Staff "has ample authority to require full mitigation of Indian Point's impacts; indeed, without such mitigation, the permitting action would be legally incomplete." Riverkeeper's April 19, 2005 submission, at 9 (citations omitted).

At the issues conference, Department Staff indicated that this comment might be the subject of further discussion between it and Entergy. IC Tr. at 175-76. Nevertheless, no resolution of this request, which the participants agreed would require adjudication, has taken place. This issue relates to a substantial condition of the draft SPDES permit. Consequently, the matter is advanced to adjudication at the hearing.

3. Clarification that where "present operating conditions" do not suggest exceedance of thermal criteria, a tri-axial study is not justified; and that should circumstances exist to justify imposition of a tri-axial study permit term, the conditions of such a study are to be representative of "present operating conditions."

In the August 20, 2004 letter, Entergy stated that Department Staff's review of Entergy's proposed modelling analysis was still ongoing, and that Entergy was hopeful that Department Staff would ultimately agree to the protocol proposed to satisfy condition 7.b. of the draft SPDES permit. Department Staff's letter of that same date confirmed that the request was still under discussion.

In an e-mail dated September 24, 2004, counsel for Department Staff indicated that negotiations were continuing and that the participants planned to include individuals with technical expertise in the discussions going forward. By letter dated September 22, 2005, Department Staff advised that it had reached agreement with respect to permit condition 7.b., and that it would inform the ALJs at a later time as to the process

Department Staff would undertake to incorporate the revised condition. Accordingly, this issue need not be adjudicated.

4. Clarification of permit condition requiring Ristroph screens.

As noted above, Entergy and Department Staff agreed upon permit language that eliminates the need to address this request for clarification.

Riverkeeper's Issues for Adjudication

Riverkeeper's petition for full party status proposed five issues for adjudication, based upon the petitioners' position that the proposed draft SPDES permit would damage the petitioners' "longstanding interests in the health and productivity of the Hudson River."⁹ Petition, at 1 (IC Exh. 5). Riverkeeper's petition stressed that the water withdrawals at Indian Point implicated "one of the most sensitive parts of one of the most productive and important waterbodies in New York State, if not the entire country." IC Exh. 5, at 5.

The participants did not raise any objections to the petitioners' environmental interest, and furthermore, did not object to adjudicating Riverkeeper's proposed issues 1, 2, 3 and 5, as follows:

1. Whether closed cycle cooling, augmented by design protections such as wedgewire and Ristroph screens, is the best technology available to minimize Indian Point's adverse environmental impacts.
2. Whether closed cycle cooling is available technology at Indian Point within the five year SPDES permit period or shortly thereafter.
3. Whether the "technologies" required by the permit will not equal or even approach the protection offered by closed cycle cooling.
5. Whether DEC would unnecessarily delay implementation of BTA requirements years after the expiration of the permit.

⁹ As noted above, the petition was submitted on behalf of Riverkeeper, Inc. as well as Scenic Hudson, Inc., and the Natural Resources Defense Council, Inc. ("NRDC").

These issues will be adjudicated at the hearing.

Issue 4 of Riverkeeper's petition, the only proposed issue to which objection was raised, states that: "[t]he proposed relaxation of the outage requirement violates federal antibacksliding law." Following the issues conference, counsel for Riverkeeper provided the ALJs and the parties with the citation to the State statute, which provides that

[n]otwithstanding any other provision of this article, when effluent limitations are established they must be at least as stringent as the effluent limitations previously required unless the commissioner determines, through regulation, that an exception is warranted as provided in section 303(d) and 402(o) of the Federal Water Pollution Control Act (33 U.S.C. sections 1313(d) and 1342(o)) as amended by the Water Quality Act of 1987.

ECL Section 17-0809(3). This provision corresponds to Section 402(o) of the federal Clean Water Act, 33 U.S.C. Section 1342(o),¹⁰ and prohibits the Department from issuing a permit renewal containing terms more lenient than those in the original permit.

In a letter dated August 20, 2004, counsel for Department Staff advised that negotiations with respect to a possible resolution of issue 4 were ongoing. Counsel for Riverkeeper concurred by correspondence on that same date. In correspondence dated September 22, 2005, Department Staff indicated that the issue had not been resolved, but on January 27, 2005, Riverkeeper

¹⁰ Section 1342(o)(1) of the Clean Water Act provides, in relevant part, that

[i]n the case of effluent limitations established on the basis of subsection (a)(1)(B) of this section, a permit may not be renewed, reissued, or modified on the basis of effluent guidelines promulgated under section 1314(b) of this title subsequent to the original issuance of such permit, to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit. In the case of effluent limitations established on the basis of section 1311(b)(1)(C) or section 1313(d) or (e) of this title, a permit may not be renewed, reissued, or modified to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit except in compliance with section 1313(d)(4) of this title.

advised the ALJ that as a result of recent discussions with Department Staff, proposed issue 4 was withdrawn. Accordingly, this issue will not be considered at the adjudicatory hearing.

AAEA's Issues for Adjudication

As noted above, the African American Environmentalist Association ("AAEA") filed a timely petition for party status. According to the petition, the AAEA was founded in 1985 and is a national, nonprofit organization "dedicated to protecting the environment, promoting the efficient use of natural resources, enhancing human, animal and plant ecologies, and increasing African American participation in the environmental movement." IC Exh. 4, at 2. The petition stated that the AAEA has approximately 10,000 members, including approximately 1,000 members in the New York area. *Id.* The AAEA is "deeply concerned with any policy or measure which impacts the air quality of the communities in which it is based, or which affects the health of its members," and "seeks to include an African American point of view in environmental policy and decision-making." IC Exh. 4, at 2-3. The AAEA is particularly concerned with promoting clean air in African American communities. IC Exh. 4, at 3.

The petition stated that the AAEA sought party status to bring its unique perspective to the Indian Point permitting process, and to raise the issue of environmental justice. *Id.* The petition cited to the Department's Environmental Justice policy which states that

[i]t is the general policy of DEC to promote environmental justice and incorporate measures for achieving environmental justice into its programs, policies, regulations, legislative proposals and activities. This policy is specifically intended to ensure that DEC's environmental permit process promotes environmental justice.

Environmental Justice Policy, Policy Statement CP-29, at 2 (March 19, 2003).

In its petition, the AAEA asserted that in order to reduce impingement and entrainment of Hudson River fish, the draft permit "substantially limits" the Stations' ability to generate electricity, and might even lead to the Stations' closure. IC Exh. 4, at 1. According to AAEA, other nearby fossil fuel burning electric generation plants would then be called upon to supply electric power to the region, with a corresponding

increase in air pollution and decrease in air quality in low-income and minority communities, where most such plants are sited. The AAEA argued that, as a result, the draft permit "effectively places the interests of Hudson River fish eggs and larva over the health of New York's low-income and minority communities." IC Exh. 4, at 2.

The petition went on to assert that fossil-fuel generated power plants cause adverse health effects, and contended that those adverse effects are borne disproportionately by African Americans. IC Exh. 4, at 6. The AAEA argued that any lost production from Indian Point would be replaced by in-city and other facilities concentrated in the New York metropolitan area, where a significant proportion African Americans reside. IC Exh. 4, at 8. The AAEA pointed out that the Stations are located in an affluent, primarily white area of the State, and took the position that closure of the Stations, or restrictions on Indian Point's operations, would shift the burden of air pollution to minority communities. IC Exh. 4, at 10. The AAEA noted that there are 24 power plants in the New York metropolitan area, and only a small number of those plants are located in areas not predominantly populated by minorities. IC Exh. 4, at 8.

With respect to the organization's environmental interest, AAEA stated that it is a non-profit environmental action group, with an interest relating to the statutes administered by the Department. IC Exh. 4, at 13. The AAEA indicated that it has an interest in ensuring that environmental justice is factored into the Department's decision-making, and that environmental statutes are interpreted with the Department's policy goal of promoting environmental justice. Id.

The AAEA proposed the following issues for adjudication:

1. Whether Department Staff considered all adverse environmental impacts in formulating the draft permit, including air impacts on minority communities?
2. Whether Department Staff would have issued a different permit had it adequately considered the negative impacts on air quality in low-income and minority communities which will result from any substantial reduction in generation at Indian Point 2 and 3?
3. Whether the failure to consider all adverse environmental impacts in formulating the draft permit for Indian Point 2 and 3, including air impacts in

minority communities, renders the draft permit unsupportable?

In its petition, the AAEA argued that if generation at Indian Point were reduced, the shortfall would of necessity be replaced by facilities in the New York metropolitan area, and the Lovett coal-burning facility. IC Exh. 4, at 9. The AAEA cited to a November 3, 2003 report prepared by Synapse Energy Economics, Inc. for counsel to Riverkeeper, which detailed the in-city capacity available if the Stations were taken off-line. IC Exh. 4E, at 2, 5. The AAEA's petition also included an August 2002 report prepared for Entergy Nuclear Northeast by TRC Environmental Corporation. IC Exh. 4F. TRC stated in that report that it was reasonable to assume that the majority of any lost output from Indian Point would be replaced by increased generation from units in the New York City/Westchester load pocket. Id., at ES-1.

According to the TRC report, if Indian Point's lost output were to be filled by in-city power plants, carbon dioxide emissions would increase by 101%, or over 12 million tons, sulfur dioxide would increase by 106%, or over 8 thousand tons, and oxides of nitrogen would increase by 105%, or over 16 thousand tons. IC Exh. 4F, at 5-3, 5-4. Even if plants in the Hudson Valley were included, the TRC report stated that emissions of these pollutants would increase by over 50%. Id., at 5-5, 5-6. Consequently, AAEA argued, the incidences of death and respiratory and cardiovascular diseases would show a corresponding increase. IC Exh. 4, at 10.

The AAEA contended in its petition that under conservative estimates, installation of closed cycle cooling will require a ten-month shutdown of the Stations. IC Exh. 4, at 11. The AAEA argued further that in making its BTA determination, Department Staff was required to minimize or avoid other impacts to the maximum extent practicable, as set forth in the FEIS. Id., at 12. The AAEA went on to assert that despite the acknowledgments set forth in the FEIS with respect to weighing impacts, Department Staff issued the draft SPDES permit "without addressing the environmental justice impacts which its decision would entail, particularly the significant adverse impacts that will result from a shift in power production from Indian Point 2 and 3 to existing fossil-fuel facilities." Id. According to the AAEA, the Department's failure to consider other impacts violates SEQRA and renders the FEIS and the draft permit null and void. Id.

The AAEA argued that the proposed issues are substantive because those issues "call into question the legality of the DEC's FEIS and Draft SPDES Permit for Indian Point 2 and 3, raise important public health and environmental justice concerns, and challenge the Draft Permit's compliance with the SEQRA and 6 NYCRR § 704.5 requirement that in issuing a permit, DEC consider *all adverse environmental impacts.*" IC Exh. 4, at 15 (emphasis in original).

The AAEA contended that the issues proposed are significant because they would ultimately call for a major modification of the draft SPDES permit to eliminate all provisions that would reduce generation at the Stations, including the requirement that cooling towers be installed. Id.

For its offer of proof, AAEA indicated that its President, Norris MacDonald, and its expert, John McCormick, an energy policy analyst with thirty years of experience, would present testimony to establish the negative effects of fossil fuel plants, the disproportionate effect such plant emissions have on minority and low-income communities, and the negative impact to be anticipated if the Stations are brought off-line. IC Exh. 4, at 15-16. The AAEA further stated that it intended to offer evidence that the Department failed to consider environmental justice issues when it conducted its impact assessment for the SPDES permit. Id.

At the issues conference, Entergy stated that it had no objection to the environmental interest advanced by this petitioner, nor did it object to any of the issues AAEA proposed for adjudication. IC Tr. at 201. Department Staff objected to the petition, arguing that AAEA's contentions were based upon an unrealistic scenario where the Stations would be shut down, and that nothing in the draft permit would or could cause a closure of Indian Point. IC Tr. at 199. Department Staff went on to note that the draft permit would require Entergy to provide a design for closed cycle cooling, and any understanding as to the air quality impacts to be anticipated must be informed by knowing what the particular design for the system will ultimately be. IC Tr. at 200. According to Department Staff, submission of the design would enable the Department to assess and analyze the air quality impacts for the second permit term. Id.

Riverkeeper argued that the issues identified by the AAEA failed to particularize the criteria in question in the draft permit. IC Tr. at 201. Riverkeeper asserted that the AAEA's issues were appropriate for consideration under SEQRA, noting that SEQRA contemplates that questions such as those advanced by

the AAEA be raised earlier in that process. IC Tr. at 202. According to Riverkeeper, the AAEA's offers of proof with respect to the issues proposed did not identify permit conditions and indicate why those conditions were not in conformance with applicable law and permitting standards. IC Tr. at 203. Riverkeeper argued further that the AAEA's arguments with respect to outages at the Stations were merely general concerns about impacts on an unspecified population, and Riverkeeper went on to assert that the impacts were not specified. IC Tr. at 205. Finally, Riverkeeper contended that environmental justice concerns fall more within the purview of SEQRA, and should be addressed in that process, rather than in the context of non-compliance with a SPDES permit requirement. IC Tr. at 206.

In response, the AAEA argued that the Department's Environmental Justice policy specifically states that it is applicable to the permitting process, noting that allowing AAEA to participate would further the Department's goal of ensuring that the concerns of low income and minority communities are considered in permitting decisions. IC Tr. at 207. The AAEA maintained that even one outage day could result in health impacts. IC Tr. at 208. Department Staff responded that the draft permit does consider air impacts on the New York metropolitan area, and that the Department might be able to submit additional testimony in that regard. IC Tr. at 212.

Department Staff went on to point out that outages at Indian Point would not authorize replacement generators to violate the terms of their air emissions permits. *Id.* Department Staff contended further that the issues, as proposed, overlapped and amounted to one issue. IC Tr. at 213. Riverkeeper offered additional remarks in support of its contention that forced outages were not good policy, and that if Riverkeeper's plan for closed cycle cooling at the Stations were adopted, the risks of outages of concern to the AAEA would be substantially eliminated. IC Tr. at 225-27. Counsel for DPS reiterated that the MAPS model would provide guidance as to the potential air quality impacts of the proposals for closed cycle cooling at the Stations. IC Tr. at 227-28.

John McCormick, the AAEA's expert, stated that while he was not fully prepared to give a technical evaluation, when construction begins at Indian Point there is a likelihood that coal fired capacity will be called into service. IC Tr. at 217. Shutdowns of 42 days could increase emissions from such plants by over 1.2 million tons during ozone season, according to Mr. McCormick, including an increase in oxides of nitrogen. IC Tr. at 218-19. Mr. McCormick went on to assert that he could

identify fifteen units in the New York City load pocket that could make up the lost power if Indian Point's generation were reduced. IC Tr. at 219. Moreover, the AAEA indicated that it is prepared to offer testimony to establish that the Department in fact failed to take environmental justice considerations into account in the process of arriving at the terms of the draft permit. IC Exh. 4, at 15-16; IC Tr. at 223.

In light of the uncertainty with respect to the ultimate design of a closed cycle cooling system and the air emissions impacts that could be associated with such a system, it would be inappropriate to foreclose participation by the AAEA in this process at this juncture. At the issues conference, Department Staff acknowledged that the air impacts of closed cycle cooling at the Stations cannot be fully understood until Entergy submits a design for such a system. In addition, Department Staff stated that further SEQRA review is contemplated. IC Tr. at 99. Moreover, the issues proposed by the AAEA have already been joined in connection with Entergy's disputes with Department Staff over the conditions in the draft SPDES permit, particularly with respect to Section III, issues 2 and 3 in Entergy's comments. See IC Exh. 6, at 16-17. Accordingly, the AAEA is granted full party status in this proceeding.

Pursuant to Section 624.4(b)(5)(ii), the ALJ is tasked with determining which issues satisfy the standards for adjudication, and defining those issues as precisely as possible. The issues in the AAEA's petition, while substantive and significant, essentially restate the same issue. Moreover, the petition discusses only the potential effect on air quality as the adverse environmental impact to be addressed. Therefore, the AAEA's issues will be considered as one, and the issue for adjudication at the hearing will be whether the draft SPDES permit has considered adequately the impacts on air quality if a closed cycle cooling system is installed at the Stations. This issue is substantive because, based on the AAEA's offer of proof, and upon this record, capacity may be limited by such installation. The issue is significant because, after hearing, the proposed draft permit may be modified to address air emission concerns.

Assemblyman Brodsky's Petition for Party Status

Assemblyman Brodsky's late-filed petition proposed the same issues for adjudication set forth in Riverkeeper's petition. Entergy objected to Mr. Brodsky's petition, as did Department Staff. The AAEA supported the petition, and Riverkeeper took no

position. Following the issues conference, the ALJ provided an opportunity for the participants to comment on the petition, as well as an opportunity for Assemblyman Brodsky to respond to those comments.

Department Staff and Entergy submitted comments. Department Staff stated that the issues offered for consideration were repetitive of those offered by Riverkeeper, and that the petition failed to make threshold offers of proof to support Mr. Brodsky's participation. Entergy argued that the petition failed to establish Mr. Brodsky's standing to take part in this proceeding, did not demonstrate good cause for the petition's late filing, and would result in significant delay or unreasonable prejudice to the participants if Mr. Brodsky were granted full party status. Entergy argued further that Mr. Brodsky's participation would not materially assist in determining the issues raised in this proceeding.

With respect to Mr. Brodsky's environmental interest, Entergy noted that the Albany County Supreme Court had advised him that his status as an elected official did not afford him separate standing in that proceeding. Matter of Brodsky v. Crotty, 3 Misc.2d 1070, 1075 (Sup. Ct. Alb. Cty. 2004). According to Entergy, it was therefore unpersuasive for Mr. Brodsky to invoke his representation of the 92nd Assembly District to establish his environmental interest in this proceeding. Entergy contended that Mr. Brodsky's late filing was not excused by either the burdens of his official duties or the vacancy of the staff counsel position in his office at the time that petitions were to be submitted.

Entergy went on to argue that the proceedings would be delayed, and other participants prejudiced, by the late-filed petition. Entergy pointed out that Mr. Brodsky failed to appear at the issues conference, and noted that a separate briefing schedule was provided after the conclusion of the issues conference to afford the participants the opportunity to comment on Mr. Brodsky's petition. Entergy also asserted that given the press of Mr. Brodsky's responsibilities, the likelihood of further delay and resulting prejudice to other parties was significant.

Finally, Entergy argued that the petition failed to raise any original issues for adjudication, noting that Mr. Brodsky reserved the right to produce witnesses and cross-examine witnesses produced by others, introduce testimony, and offer legal argument, but otherwise failed to provide any offer of proof. Entergy asserted that Mr. Brodsky's petition should not

even be afforded amicus status, and noted that Riverkeeper had taken the position at the issues conference that it was not prepared "to have fully joined preparation of issues with Mr. Brodsky," nor did Riverkeeper have any plans at that time to work with Mr. Brodsky to produce witnesses at the hearing. IC Tr. at 192-93.

The AAEA did not submit written comments on the petition. By letter dated April 15, 2004, Riverkeeper reiterated that it took no position on the petition, noting further that it had no objection to the Assemblyman's adoption of the issues proposed in Riverkeeper's petition for party status.

In response, Mr. Brodsky pointed out that he was successful in establishing standing in the Article 78 proceeding (Matter of Brodsky, supra), pointing out the requirements for such standing are more rigorous than those imposed in a Department permit hearing. Mr. Brodsky emphasized that the court found that his environmental and economic interests had suffered an "injury in fact, distinct from that of the general public." IC Exh. 12A, at 2 (citations omitted). Mr. Brodsky stated that he lives near the Hudson River, and frequently uses the River for recreation. In addition, Mr. Brodsky noted that he represents the 92nd Assembly District, whose approximately 10,000 inhabitants live near the Hudson River and whose social, economic and environmental interests are likely to be affected by the Indian Point permitting process. According to Mr. Brodsky, a grant of party status on his constituents' behalf would conserve judicial resources, and he should therefore be found to have standing in his official capacity to advocate for that constituency.

With respect to good cause for the late filing, Mr. Brodsky pointed out that the ALJ has broad discretion in making such a determination. Mr. Brodsky went on to state that in this case, "the combination of the absence of legal counsel and the press of his official duties made filing impossible until his staff was at full strength." IC Exh. 12A, at 4. The Assemblyman pointed out that he filed his petition prior to the issues conference, and observed that Entergy had not contradicted the reasons he offered for the late filing, but instead relied upon a standard for showing of good cause that is not applicable to this proceeding. Mr. Brodsky referred to the list of bills that he introduced during the notice period as well as the transcripts of his committee's hearings to support his assertions with respect to the activity of the committee he chairs, contending further that when he is occupied in his official capacity, his voluminous workload also implicates his ability to attend to his personal responsibilities.

Mr. Brodsky cited to the regulations, noting that a demonstration that participation would significantly delay the proceedings, and result in unreasonable prejudice, is required to successfully oppose a late-filed petition. According to Mr. Brodsky, Entergy did not make such a showing, and had only argued that the petition was filed on the eve of the issues conference and that the proceedings were delayed by the subsequent submissions commenting upon the petition. Mr. Brodsky pointed out that accepting his petition would not necessitate a second issues conference, and asserted that the fact that the issues conference concluded in one day rather than the scheduled two days, thus precluding his attendance, should be taken in to consideration.

Finally, Mr. Brodsky contended that his participation would materially assist in determining the issues presented, noting that a petitioner may provide such "material assistance" by contributing to an issue raised by another party. This petitioner stated that he reserved the right to call expert witnesses to testify as to the factual and legal matters implicated in this proceeding. In addition, Mr. Brodsky stated that he intended to cross-examine the witnesses offered by other parties.

Mr. Brodsky went on to assert that his "particular and unique expertise in the law of the matters to be decided in this proceeding - such as the meaning of BTA in this permit proceeding, the extent of the damage that Entergy must remediate, the defects in the permit application, and what alternative means are available and meet the standards to which Entergy must adhere - will materially assist in the determination of issues in this proceeding." IC Exh. 12A, at 8. According to Mr. Brodsky, his participation would shed greater light on the issues of law and fact to be considered at the hearing. Mr. Brodsky's response articulated similar arguments in response to Department Staff's concerns that the issues raised in his petition were duplicative of those advanced by Riverkeeper.

When an individual petitions for party status after the deadline for filing a petition, that individual must first satisfy the requirements for an acceptable petition. 6 NYCRR Section 624.5(c)(2). In addition, the petitioner must show good cause for the late filing, demonstrate that its participation will not significantly delay the proceedings, or unreasonably prejudice other parties. Section 624.5(c)(2)(i)-(ii). Finally, the petitioner must establish that its involvement will materially assist in addressing the issues at the hearing. Section 624.5(c)(2)(iii).

Assemblyman Brodsky's petition satisfies this standard. The threshold "environmental interest" demonstration required for participation in a Department permit hearing is lower than that of standing to sue in a judicial proceeding. See Matter of Thalle Indus., Inc., Issues Ruling at 40, 2003 WL 23011964, * 38 (Dec. 10, 2003) (standing to participate in Department permit hearings differs from that required to challenge government action in State court proceedings; standing is governed by the regulations, and "has been interpreted liberally to facilitate citizen participation"); Matter of Tetz & Sons, Inc., Issues Ruling at 13, 2003 WL 1736444, * 9 (Mar. 20, 2003) (threshold for demonstrating environmental interest is very low and challenges to that interest have rarely been sustained); Matter of Town of Carmel Water Dist. No. 13, Issues Ruling at 6, 2002 WL 430418, * 6 (Mar. 15, 2002) (criteria for party status in a DEC permit hearing are those set forth in Section 624.5(d) of 6 NYCRR, which in turn refers to Section 624.5(b)).

Here, Mr. Brodsky has established the requisite environmental interest, both in his personal capacity and in the context of his official position. Moreover, Mr. Brodsky has demonstrated good cause, and his participation will not significantly delay the proceedings. Although the petition in question was filed only the day before the issues conference, the issues were discussed in the context of Riverkeeper's petition, and the participants had no objection to four of the five issues propounded in its petition. In addition, all participants were afforded the opportunity to comment on the petition at the issues conference and in written submissions afterwards.

Mr. Brodsky's expressed intent to cross-examine other parties' witnesses, without necessarily providing independent evidence, does not bar his participation. See Matter of Halfmoon Water Improvement Area No. 1, Commissioner's Decision, at 2, 1982 WL 25856, * 2 (April 2, 1982) ("[w]here an intervenor proposes to demonstrate a defect in the application through cross-examination of the Applicant's witnesses, an intervenor must make a credible showing that such a defect is present and likely to affect permit issuance in a substantial way.") As noted, the issues Mr. Brodsky raised are the same as those advanced by Riverkeeper, and the participants have agreed that those questions are adjudicable, with the exception of the "anti-backsliding" issue. Riverkeeper withdrew that proposed issue, and by letter dated January 30, 2006, counsel for Mr. Brodsky advised that "[b]ased upon discussion with Environmental Petitioners and upon further consideration, Assemblyman Brodsky has determined to withdraw his proposed issue 4, and is no longer requesting a ruling with respect to such issue."

Moreover, the regulations provide that in order for party status to be granted on the basis of a late-filed petition, the petitioner must demonstrate that participation will materially assist in the determination of issues raised. The participants have already agreed to adjudicate four of Riverkeeper's five issues. Mr. Brodsky's adoption of those four issues, and the likelihood that he will materially contribute to their adjudication, provides a sufficient basis, on this record, to grant his petition. See Matter of Thalle, supra, at 41, 2003 WL 23011964, * 39 (Town of Fishkill, which supported project and therefore did not propose issues for adjudication, was granted party status; ALJ noted that through its attorney it could be helpful in cross-examining other parties' witnesses); Matter of Southern Dutchess Sand & Gravel, Inc., Issues Ruling, at 11, 2005 WL 958141, * 7 (Apr. 20, 2005) (to obtain party status, petitioner need not be the proponent of an issue).

Summary of Rulings on Requests for Party Status

Pursuant to 6 NYCRR 624.5, the parties to any adjudicatory hearing are the applicant, Department Staff and those who have been granted full party status. As explained above, Riverkeeper filed a joint petition for full party status with Natural Resources Defense Council (NRDC), and Scenic Hudson. In addition, the African American Environmentalist Association filed a timely petition for full party status. Finally, Assemblyman Richard Brodsky submitted a late-filed petition for party status.

The criteria for determining whether the ALJ should grant petitions for full party status are provided in 6 NYCRR 624.5(d)(1). Upon review of these criteria and the petitions for full party status, I find that Riverkeeper, NRDC and Scenic Hudson jointly filed an acceptable petition as required by 6 NYCRR 624.5(b)(1) and (2). As discussed above, Riverkeeper has raised substantive and significant issues for adjudication concerning the requirements outlined in Section 316(b) of the federal Clean Water Act and 6 NYCRR Section 704.5 for the implementation of the best technology available for minimizing adverse environmental impacts from the proposed cooling water intake structures (see 6 NYCRR 624.5(b)(2)(i)). In addition, Riverkeeper, NRDC and Scenic Hudson have shown an adequate environmental interest (see 6 NYCRR 624.5(b)(1)(ii)). Therefore, the joint petition for full party status filed by Riverkeeper, NRDC and Scenic Hudson is granted.

Similarly, Assemblyman Brodsky has demonstrated an adequate environmental interest, and raised substantive and significant issues. As noted above, both Riverkeeper and Mr. Brodsky have

withdrawn their proposed issue with respect to the "anti-backsliding" provision. Inasmuch as the four remaining issues to be advanced to adjudication are identical to those raised by Riverkeeper, Mr. Brodsky is directed to confer with Riverkeeper in order to coordinate the presentation of evidence at the hearing. Mr. Brodsky's petition for full party status is granted.

Finally, the AAEA's petition for full party status establishes an adequate environmental interest on the part of this petitioner. As set forth above, the issues raised by the AAEA will be considered as one.

Conference Call

Within ten days of the date of this ruling, all participants should advise the ALJs of their availability for a conference call to discuss further proceedings in this matter. The conference call is tentatively scheduled for the week of February 21-24, 2006.

Appeals

A ruling of the ALJ to include or exclude any issue for adjudication, a ruling on the merits of any legal issue made as part of an issues ruling, or a ruling affecting party status may be appealed to the Commissioner on an expedited basis (see 6 NYCRR 624.8(d)(2)). Ordinarily, expedited appeals must be filed with the Commissioner in writing within five days of the disputed ruling (see 6 NYCRR 624.6(e)(1)).

Due to the length of these rulings, and because certain of the participants are involved in proceedings in other electric generation plant SPDES permit hearings which will affect the appeal schedule, the participants are directed to file a notice of appeal by **Friday, February 17, 2006**. The notice of appeal should indicate which rulings, if any, the participant intends to contest. Those participants who do not intend to pursue any appeal should file a statement to that effect on the same date. This process is not intended to preclude a participant from raising issues other than those specified in the notice of appeal, but rather will be used to develop a schedule for submission of initial and reply briefs to avoid an undue burden on counsel for those entities who are appearing in other power plant proceedings.

Send one copy of the notice of appeal to Deputy Commissioner Carl Johnson, c/o Louis A. Alexander, Assistant

