



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

JON S. CORZINE
Governor

Division of Land Use Regulation
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LISA P. JACKSON
Commissioner

Timothy Rausch, Site Vice President
Oyster Creek Generating Station
AmerGen Energy Company, LLC
Route 9 South
Forked River, NJ 08731

RE: Federal Consistency Request for License Renewal of AmerGen's Oyster Creek Nuclear Generating Station (OCNGS)
Applicant: AmerGen Energy Company LLC (AmerGen)
Program File No. 1500-02-0004.4 CDT060001
Location: Lacey Township, Ocean County

Dear Mr. Rausch:

The NJDEP, Division of Land Use Regulation (the "Division") has completed the review of your request for a Federal Consistency Determination (FCD) pursuant to Section 307 of the federal Coastal Zone Management Act of 1972 (P.L. 92-583), as amended. Based on this review, the Division finds that the proposed relicensing is consistent with New Jersey's Coastal Management Program, as described below. This FCD is required pursuant to the federal Coastal Zone Management Act for applicants applying to a federal agency for a license for a new facility or to relicense an existing facility within New Jersey's Coastal Zone. In this case, AmerGen requested that the Nuclear Regulatory Commission (NRC) relicense the facility for a period of 20 years, or until 2029. The Department's Coastal Zone Management (CZM) rules at N.J.A.C. 7:7E represent the standards for reviewing the FCD request.

ADMINISTRATIVE HISTORY

On January 21, 2005, the applicant, AmerGen Energy Company LLC, submitted an application for a Federal Consistency Determination Request for License renewal of AmerGen's Oyster Creek Nuclear Generating Station by the federal Nuclear Regulatory Commission (NRC). By letter of March 31, 2005, the Division advised the applicant that the State agency's review had begun and a decision was due on or before July 21, 2005. In addition, the March 31, 2005 Division letter requested information to address application deficiencies. The Division requested the applicant to submit the information and an analysis of that information to support the following assertions made by AmerGen:

1. The impacts of entrainment and impingement during current operations are being monitored on a continual basis;
2. The Ristroph travelling screens currently being used reduce the number of fish impinged and impingement mortality;
3. The water quality of Barnegat Bay, which had been in decline, is recovering and now supports a healthy fish population; and
4. The impacts of heat shock during current operations are also being monitored on a continual basis.

On or about June 15, 2005, the applicant and the Division verbally agreed that additional data was needed to satisfy a deficiency, and the applicant responded with a submittal received on June 21, 2005. By letter of July 20, 2005, the applicant submitted a letter, which accurately stated there was mutual agreement to extend the response date to August 22, 2005. On August 19, 2005, the Division objected to AmerGen's Coastal Zone Management Act consistency certification based upon a lack of information. On September 19, 2005, AmerGen withdrew its consistency certification from Division consideration.

On December 1, 2006, AmerGen submitted a new FCD request for License renewal of OCNGS by the NRC. This application included additional information not contained in the original requests. Notwithstanding this additional information, the Division found that insufficient fisheries data had been submitted and that lack of information precluded the DLUR from making a positive finding on that request. By letter dated May 31, 2007, the Division notified the applicant that it could not make a positive FCD on that request.

By letter from Timothy Rauch, OCNGS Site Vice President to the Division, dated September 13, 2007, AmerGen indicated that additional fisheries data had been collected, and that specific mitigation proposals were developed to address impacts of the facility operations on the Barnegat Bay ecosystem. Based on a review of this information and information submitted with previous applications, the Department determined that it would be appropriate to reconsider the FCD request, and notified AmerGen of that determination by letter dated September 27, 2007.

On October 30, 2007, the Division received a new request for a FCD for the relicensing. Notice of receipt of this request was published in the DEP Bulletin on November 21, 2007. This notice established a 15-day public comment period that expired on December 6, 2007.

DECISION FRAMEWORK

The applicable federal regulations provide that federal activities affecting a State's coastal zone must be consistent with a State's coastal management program, unless compliance is prohibited under federal law. In addition, the applicant shall furnish the

State agency with necessary data and information along with the consistency certification.

New Jersey's CZM rules represent the consideration of various conflicting, competing, and contradictory local, State, and national interests in diverse coastal resources and in diverse uses of coastal locations. Numerous balances have been struck among these interests in defining these rules, which reduce but do not presume to eliminate all conflicts among competing interests. One reason for this intentional balancing and conflict reducing approach is that coastal management involves explicit consideration of a broad range of concerns, in contrast to other resource management programs, which have a more limited scope of concern.

Decision-making on individual proposed actions using the CZM rules must therefore consider, weigh, evaluate, and interpret inevitably complex interests, using the framework established by the rules. In this process, interpretations of terms, such as "prudent," "feasible," "minimal," "practicable," "maximum extent," "discouraged" and "conditionally acceptable" as used in a specific rule or combinations of the rules may vary, depending upon the context of the proposed use, location, and design. Finally, these principles should not be understood as authorizing arbitrary decision-making or unrestrained administrative discretion. Rather, the limited flexibility intentionally built into the CZM rules provides a mechanism for incorporating professional judgment by Department officials, as well as recommendations and comments by applicants, public agencies, specific interest groups, corporations, and citizens into the coastal decision-making process.

In the application of administrative discretion, Department officials will be guided by following eight basic coastal policies, which summarize the direction of the specific rules:

1. Protect and enhance the coastal ecosystem.
2. Concentrate rather than disperse the pattern of coastal residential, commercial, industrial, and resort development, encourage the preservation of open space, and ensure the availability of suitable waterfront areas for water dependent activities.
3. Employ a method for decision making which allows each coastal location to be evaluated in terms of both the advantages and the disadvantages it offers for development.
4. Protect the health, safety and welfare of people who reside, work and visit the coastal zone.
5. Promote public access to the waterfront through protection and creation of meaningful access points and linear walkways and at least one waterfront park in each waterfront municipality.
6. Maintain active port and industrial facilities, and provide for necessary expansion in adjacent sites.

7. Maintain and upgrade existing energy facilities, and site additional energy facilities in a manner consistent with the rules of this Coastal Management Program.
8. Encourage residential, commercial, and recreational mixed-use redevelopment of the developed waterfront.

In the review of this FCD request, the Division deems Basic Coastal Policies 1, 4, 5, and 7 to be applicable.

Basic Coastal Policies 1 and 4 require consideration of the need to protect and enhance all of the coastal ecosystem components and to maintain and enhance the employment and commercial opportunities for those employed in the related tourism and service industries, including commercial and recreational fishermen and charter boat owners. The Division also considers the importance of the facility both as an employer and as a major provider of electricity to residential, commercial and industrial users in the coastal zone.

Basic Coastal Policy 5 requires the Program to enhance public access to the waterfront through protection and creation of meaningful access points and walkways.

Basic Coastal Policy 7 seeks to maintain and upgrade existing energy facilities, and site additional energy facilities in a manner consistent with the rules of the New Jersey Coastal Management Program. The Program recognizes the importance of existing energy producing facilities sited in New Jersey's coastal zone to its inhabitants, visitors, and commercial and light industrial facilities, provided that the facilities are upgraded to maintain consistency with the NJ Coastal Management Program.

PUBLIC COMMENTS

The Division received detailed comments on the pending FCD request from a number of environmental groups and interested members of the public. In addition, the Division received significant comments submitted in response to the prior requests for FCD. All comments received by the Division for all requests have been considered in this decision.

Public comments on the pending application addressed numerous issues, with the primary concerns categorized as follows: duration of the public comment period for this pending request; long-term impacts of impingement and entrainment of estuarine organisms; impacts from thermal shock from cooling water discharge; the scope of proposed environmental restoration/mitigation; the physical condition of the plant facility and reactor safety; potential impacts to endangered sea turtles; the scope of data available to fully evaluate impacts of the plant operations; compliance with EPA Phase II 316(b) requirements; and, cumulative impacts of continued operation.

The Division received several requests from environmental advocacy groups to extend the public comment period on this application. By letter dated December 3, 2007, the Division notified the requestors that the comment period would not be extended. The basis of the Division's decision to not grant the extension is that the recently submitted application is essentially the same application that these groups previously reviewed and commented on in great detail. The Division maintained those original comments and has considered the previously submitted comment in this current review and decision. The primary difference in the two applications is that the prior application contained only one year of fish entrainment data, whereas the current application contains two years of data.

ANALYSIS

In addition to the Basic Coastal Policies referenced above, the CZM rules applicable to this review are found under the Special Areas Rules (N.J.A.C. 7:7E-3.0) and Resource Rules (N.J.A.C. 7:7E-8.0), as discussed in detail below. Many CZM rules apply to "proposed development" and as such, are not applicable to the review of this request since the applicant is not seeking to construct new facilities. However, the Basic Coastal Policies referenced above compel the Division to review the proposed relicensing in light of all applicable rules, in terms of the specific FCD request it effects on various resources of the built and natural environment of the coastal zone, as well as in its surrounding region.

The Prime Fishing Areas rule (N.J.A.C. 7:7E-3.4), Finfish Migratory Pathways rule (N.J.A.C. 7:7E-3.5), and the Marine Fish and Fisheries rule (N.J.A.C. 7:7E-8.2) seek to maintain the State's fisheries and to cause minimum interference to the natural functioning of marine fish and fisheries, including the reproductive and migratory patterns of estuarine and marine dependent species of fish and shellfish.

The OCNGS was constructed prior to enactment of the Coastal Area Facility Review Act (CAFRA, N.J.S.A. 13:19-1 et seq.) and has been in operation since 1969. Therefore, the direct impact of that initial construction was not subject to regulation pursuant to the CZM rules. The continued operation of the OCNGS, which is the subject of this FCD request, is subject to review pursuant to the CZM rules. The scope of this review is focused on the continued operation of the facility, and the ongoing impacts of the facility on the coastal environment.

The operation of the OCNGS is causing an impact on the estuarine environment, specifically to marine fish and fisheries, through the cooling process. Specifically, fish and shellfish are impinged on the cooling water intake screens, entrained through the circulating water system and the dilution pumps, and subjected to thermal impacts from discharge water. While the applicant has provided two years of recent monitoring data (encompassing a period from 2005 through 2007) to supplement previous data collected and to quantify the impacts from impingement and entrainment, the long-term effects on the coastal ecosystem are difficult to quantify. The difficulty in making this assessment is due to a number of factors listed below, some of which are not well-understood by the scientific community:

1. Lack of long-term biological monitoring data throughout Barnegat Bay;
2. Non-point source pollution loading into the Bay;
3. Nitrogen loading into the Bay from various sources (air deposition, groundwater discharge, non-point pollution);
4. Extensive motorized boat and jet-ski usage throughout the Bay;
5. Eutrophication within the Bay;
6. Loss of wetland and other estuarine habitat;
7. Changes in tidal regime within the estuary resulting from reconstruction of the Barnegat Inlet south jetty; and
8. Development on the Bay and within the Barnegat Bay Watershed, including docks, piers, bulkheads and other waterfront structures.

The plant operations include the use of Ristroph travelling screens to reduce the number of organisms that are entrained. This technology is recognized and supported by NJDEP as a means to minimize the impacts resulting from water intake. NJDEP encourages AmerGen to continue employing the best available technology to minimize environmental impacts and application of new technologies and flow reduction measures should be considered. The short-term and long-term impacts via the intakes and thermal discharge will be addressed more specifically through the forthcoming NJPDES permit process for the facility.

Both the Finfish Migratory Pathways rule and the Marine Fish and Fisheries rule address potential impacts of development activities on these resources, and include provisions for consideration of mitigation in determining compliance. Given the fact that the facility was built in 1968, and the difficulty in drawing a clear nexus between the continued operations of OCNGS and the Bay impairments, the applicant has proposed various mitigation activities intended to offset any impacts of continued operation. All of these activities are proposed to be funded by AmerGen and conducted under the direct supervision of the NJDEP, Division of Fish & Wildlife. Within 90 days of the decision date, AmerGen will meet with the NJDEP, Division of Fish & Wildlife, to coordinate these activities with other partners, including the USF&WS and the Barnegat Bay Estuary Program, and to establish and memorialize all parameters for implementation of the mitigation activities identified below.

Environmental enhancement/mitigation activities proposed by the applicant, as outlined in letters from AmerGen dated September 13, 2007 and November 30, 2007, include:

1. Tidal wetland restoration: AmerGen proposes to restore approximately 170 acres of phragmites dominated tidal wetlands at two locations proximate to the OCNGS over an eight-year period beginning in 2009. The Finninger Farm site will provide restoration for approximately 70 acres of degraded wetlands. The Forked River Game Farm site will provide restoration for approximately 100 acres of degraded wetlands. Both projects will be conducted through adaptive management techniques designed to eliminate or significantly reduce

the coverage of phragmites, and restoration of tidal flow to facilitate conversion to marsh dominated by *Spartina*. AmerGen has committed to fund these wetland restoration projects through a total contribution of \$2.8 million.

2. Hard Clam Bed Restoration: AmerGen proposes to restore 50 acres of hard clam habitat adjacent to Island Beach State Park, within the Sedge Island Marine Conservation Zone. This shallow water habitat enhancement project will involve the placement of crushed shell to enhance bottom substrate, and annual stocking with hatchery clam seed. AmerGen has committed to fund this three-year restoration project through a contribution of \$1.4 million.
3. Oyster Bed Restoration: AmerGen proposes to fund a three-year oyster bed restoration project within Barnegat Bay, with the specific location to be determined by NJDEP, Division of Fish & Wildlife. This project will involve the placement of crushed shell substrate material and annual plantings of hatchery or natural oyster seed. AmerGen has committed to fund this restoration project through a contribution of \$200,000.

In addition, AmerGen proposes to enhance public access to and use of the Barnegat Bay waterfront, as discussed later in this decision

The Endangered or Threatened Wildlife or Plant Species Habitats rule (N.J.A.C. 7:7E-3.38) seeks to protect endangered or threatened species and their habitats. The request for a FCD does not involve development within any of these habitats, however the continued operation of the facility has the potential to impact various sea turtles, including Kemp's ridley, green and loggerhead sea turtles. During review of the original applications, the Division requested a copy of the results of the NRC's requested re-initiation of Endangered Species Act Section 7 consultation with NOAA's National Marine Fisheries Service (NMFS), which was not complete at the time. NMFS did, at the time, recommend that, until the Biological Opinion gets issued, the NRC continue to implement the requirements identified in the July 21, 2001 Opinion and the August 29, 2001 amended ITS.

Based upon NMFS's Biological Opinion, dated November 21, 2006, NMFS concludes that the continued operation of the OCNGS may adversely affect but is not likely to jeopardize the continued existence of endangered Kemp's ridley, green, or threatened loggerhead sea turtles. NMFS also determined that the proposed action is not likely to adversely affect endangered leatherback or hawksbill sea turtles. AmerGen's September 13, 2007 submittal discusses the November 21, 2006 Opinion that describes methods to address incidental impacts to turtles. The September 13 submittal agrees to comply with the Terms and Conditions section of the NMFS Opinion.

The NJDEP Division of Fish and Wildlife December 10, 2007 comments regarding AmerGen's FCD request agree with the November 21, 2006 NMFS Biological Opinion. The Division of Fish and Wildlife believes that provided AmerGen fulfills the agreement contained in their September 13, 2007 submittal, AmerGen will be complying with the Biological Opinion terms and conditions.

The Special Hazard Areas rule (N.J.A.C. 7:7E-3.41) identifies special hazard areas to include areas with a known actual or potential hazard to public health, safety, and welfare, or to public or private property. Due to the nature of the OCNCS operating activities, this rule applies.

The NJDEP Bureau of Nuclear Engineering has provided information regarding the New Jersey Radiological Emergency Response Plan (RERP) Revision 12, dated June 2007. The RERP was developed by the State Police Office of Emergency Management and NJDEP. The RERP describes specific roles and responsibilities of State and local emergency response organizations in the event of a nuclear emergency affecting New Jersey. There are also two Annexes to the RERP, Annex A and Annex B. The annexes are specific response plans for each of the municipalities within ten miles of each of the nuclear generation sites in New Jersey (Oyster Creek and Artificial Island.). Attachment 22 of Annex B – Oyster Creek Revision 11, 2007 includes the evacuation planning areas and routes for the municipalities within the ten-mile emergency planning area around the site. The adequacy of off-site nuclear emergency response is evaluated by the Federal Emergency Management Agency (FEMA) through radiological emergency preparedness exercises. FEMA graded exercises are required biennially, and in addition, nuclear emergency responders participate in annual state exercises, quarterly exercises with AmerGen, table-top drills and field drills.

During the public comment period, concerns were raised regarding the physical condition of the plant facility and reactor safety. The Nuclear Regulatory Commission (NRC) has sole regulatory authority over the safety of nuclear power plants in the United States. In March 2007, the NRC staff issued the final “Safety Evaluation Report Related to the License Renewal of Oyster Creek Generating Station.” The report is available in on the NRC website (www.nrc.gov) under accession number ML070890637.

The Water Quality rule (N.J.A.C. 7:7E-8.4) states: “As required by Section 307(f) of the Federal Coastal Zone Management Act (P.L. 92-583), Federal, State and local water quality requirements established under the Clean Water Act (33 U.S.C. 1251) shall be the water resource standards of the coastal management program. These requirements include not only the minimum requirements imposed under the Clean Water Act but also the additional requirements adopted by states, localities, and interstate agencies pursuant to Section 510 of the Clean Water Act and such statutes as the New Jersey Water Pollution Control Act.” “Department rules related to water pollution control and applicable throughout the entire coastal zone include, for example, the Surface Water Quality Standards (N.J.A.C. 7:9-4), the rules concerning Wastewater Discharge Requirements (N.J.A.C. 7:9-5), the Ground-Water Quality Standards (N.J.A.C. 7:9-6), and the Regulations Concerning the New Jersey Pollutant Discharge Elimination System (N.J.A.C. 7:14A).”

While the applicant is in compliance with the existing NJPDES permit issued in 1994 with respect to Section 316(b) measures, EPA issued final regulations for Section 316(b) in 2004, which were recently suspended by EPA. States and permitting authorities have been directed by EPA to issue permits in accordance with Best Professional

Judgement. As articulated in the draft NJPDES permit issued on July 19, 2005, the Department determined that closed-cycle cooling is the preferred alternative with respect to minimizing impingement and entrainment effects. The Division finds the applicant in compliance with this Rule provided that OCNGS complies with all the terms and conditions of any current or future NJPDES permit.

Basic Coastal Policy 5 and the Public Access to the Waterfront rule (N.J.A.C. 7:7E-8.11) require the Program to promote public access to the waterfront through protection and creation of meaningful access points and linear walkways and at least one waterfront park in each waterfront municipality.

AmerGen has committed to providing public access to the waterfront at a 220-acre portion of the Finninger Farm property in Lacey Township, as follows:

1. Construction of a boat launch facility;
2. Construction of parking for 81 vehicles;
3. Construction of parking for 35 boat trailers;
4. Construction of 5.4 miles of passive recreational walking trails;
5. Construction of a Nature Center with public rest rooms;
6. Recordation of a conservation easement for the property to ensure that it remains as public open space dedicated to water dependent uses in perpetuity; and
7. Ultimate conveyance of the property to the Township of Lacey.

Based on a map entitled, "Proposed Plan--Overall Plan, Waterfront Access and Nature Trails, Finninger Farm & Clune Park, Lacey Township, Ocean County", NJDEP has determined that the 220-acre portion of the Finninger Farm property contains appropriate site characteristics for public access. It is AmerGen's intention to retain the existing dredge spoil disposal site for potential future use and to physically separate the non-public access areas of the Finninger Farm property from the public. The ultimate public access enhancements will be completed as described in the referenced September 13, 2007 letter from AmerGen and associated application information and Appendices.

Basic Coastal Policy 7 applicable to this request: "Maintain and upgrade existing energy facilities, and site additional energy facilities in a manner consistent with the rules of this Coastal Management Program." The Division recognizes the importance of existing energy producing facilities sited in New Jersey's coastal zone to its inhabitants, visitors, and commercial and industrial facilities, provided that the facilities are upgraded to maintain consistency with the NJ Coastal Management Program.

In terms of specific plant upgrades and enhancements, AmerGen has completed the following:

1. Alternate power supply to dilution pumps: AmerGen installed a backup power source for the dilution pumps to avoid service interruption that might impact aquatic life;
2. Intake improvements: AmerGen installed screen and pump improvements to reduce the mortality rate for aquatic life that may be pulled into the intake structure. Screen

wash systems are used to gently remove aquatic life from the screens and a return system is provided to deliver aquatic life to the discharge side of the plant. This handling system includes Ristroph screens, fish buckets, fish troughs and a sampling building;

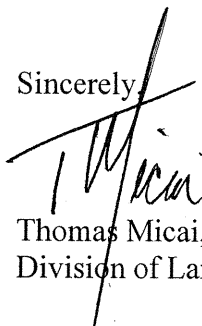
3. Diesel generator fuel oil line replacement: AmerGen replaced its generator fuel oil line with a double-walled (pipe within a pipe) line. In addition, leak detectors are located between the inner and outer walls of the pipe to alert plant operators in the event of leaks;
4. Emergency service water: AmerGen is replacing the emergency service water/underground piping system;
5. Emergency service water pump upgrades: AmerGen upgraded its emergency service water pump to improve reliability and avoid unplanned power reductions and plant shutdowns that might impact aquatic life; and
6. Circulation pumps rebuild: AmerGen rebuilt and overhauled its circulation pumps to improve water reliability and avoid unplanned power reductions and plant shutdowns that might impact aquatic life.

CONSISTENCY FINDING

Based on the above analysis, and consideration of all public comments on the application, the Division finds that the proposed relicensing of the OCNGS is consistent with the New Jersey Coastal Management Program. In making this determination, the Division considered the ongoing impacts of the facility, the need to maintain energy facilities and energy production, and the balancing of competing local, State and national interests in diverse coastal resources.

Should you have any questions regarding this decision, or if you wish to discuss this matter further, please do not hesitate to contact me at the above address or at 609-984-0288.

Sincerely,

 12/28/07

Thomas Micai, Director
Division of Land Use Regulation

- c. Andrew Kugler, Chief of Environmental Section, Office of Nuclear Reactor Regulation
Eldon Hout, Director, OCR-NOAA (N/ORM),
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