



# United States Department of the Interior

OFFICE OF THE SECRETARY  
Office of Environmental Policy and Compliance  
408 Atlantic Avenue – Room 142  
Boston, Massachusetts 02110-3334



January 14, 2011

9043.1  
ER 10/926

Bo Pham, Chief  
Project Branch 1, Division of License Renewal  
Office of Nuclear Reactor Regulation  
Nuclear Regulatory Commission  
Washington, D.C. 20555-0001  
Attn: Leslie Perkins

**RE: COMMENTS**  
**Draft Environmental Impact Statement for License Renewal of Nuclear Plants,**  
**Regarding Hope Creek Generating Station and Salem Nuclear Generating Station,**  
**Units 1 and 2, Supplement 45 to NUREG-1437, Lower Alloway Creek Township,**  
**Salem County, New Jersey**

Dear Mr. Pham:

The U. S. Department of the Interior (Department) has reviewed the October 2010 Draft Plant-Specific Supplement 45 to the Generic Environmental Impact Statement for License Renewal for the Hope Creek Generating Station and Salem Nuclear Generating Station, Units 1 and 2 (draft SEIS). The generating stations are located on Artificial Island in Lower Alloway Creek Township, Salem County, New Jersey. Notice of availability for the draft SEIS was published in the October 29, 2010, Federal Register (Vol. 75, No. 209, page 66756). PSEG Nuclear, LLC (PSEG Nuclear) has applied to the U.S. Nuclear Regulatory Commission (NRC) for renewal of the operating licenses for these plants, which expire in 2016 (Salem Unit 1), 2020 (Salem Unit 2), and 2026 (Hope). License renewal would extend the operating period of each reactor for an additional 20 years. Four existing 500-kV transmission lines emanate from the plants and extend along southern Salem, Gloucester, and Camden Counties in New Jersey and into New Castle County in Delaware. The proposed relicensing would not involve any expansion of existing facilities, structural modifications or other refurbishments, or change in existing management practices for the plants or the lines. This response does not address any proposals for construction of new or expanded facilities.

## **AUTHORITY**

This response is pursuant to the National Environmental Policy Act of 1969 as amended (83 Stat. 852; 42 U.S.C. 4321 *et seq.*); the Fish and Wildlife Coordination Act (48 Stat. 401; 16 U.S.C.

661 *et seq.*); Section 7 of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA); the Bald and Golden Eagle Protection Act (54 Stat. 250; 16 U.S.C. 668-668d) (Eagle Act); and the Migratory Bird Treaty Act of 1918 (40 Stat. 755, as amended; 16 U.S.C. 703-712).

## **FEDERALLY LISTED SPECIES**

The Department's U.S. Fish and Wildlife Service (FWS) provided relevant information and recommendations regarding federally listed species via letters dated September 9, 2009; November 4, 2009; and June 29, 2010 (enclosed). No federally listed species under FWS jurisdiction are known to occur in the vicinity of the existing Salem or Hope Generating Stations. However, known occurrences and other areas of potential habitat for the federally listed (threatened) swamp pink (*Helonias bullata*), and areas of potential habitat for the federally listed (threatened) bog turtle (*Clemmys muhlenbergii*), occur along the Hope Creek/Salem to New Freedom and Salem to New Freedom South transmission lines.

Via letter dated October 23, 2009 (enclosed), Public Service Electric and Gas Company (PSE&G) adopted several conservation measures to avoid adverse effects to federally listed and candidate species from State-mandated vegetation management and other maintenance activities along its transmission system throughout New Jersey, including the four transmission lines emanating from the Salem and Hope Creek Generating Stations. FWS concurred with those conservation measures in its letter of November 4, 2009.

FWS previously recommended that NRC include of all PSE&G's adopted conservation measures in the SEIS, and as conditions of any renewed license. This recommendation is not reflected in the draft SEIS. During a January 4, 2011, conference call, NRC clarified that PSE&G is a wholly separate company from PSEG Nuclear, and is not subject to any provisions of PSEG Nuclear's license to operate the Salem and Hope Creek Generating Stations. On the call, FWS indicated that PSE&G's continued adherence to acceptable conservation measures along the Hope Creek/Salem to New Freedom and Salem to New Freedom South transmission lines is essential to avoiding adverse impacts to federally listed species. The Department requests that NRC clarify potential effect in the final SEIS, and acknowledge that it must reinitiate Section 7 consultation for the continued operation of the Salem and Hope Creek Generating Stations if PSE&G should ever terminate its implementation of acceptable conservation measures along the transmission lines.

## **BALD EAGLE AND MIGRATORY BIRDS**

In their September 9, 2009, letter, FWS provided recommendations regarding the bald eagle (*Haliaeetus leucocephalus*) and other migratory birds. The FWS recommendations are not reflected in the draft SEIS. The Department requests that NRC address requirements of the Eagle Act in the final SEIS, specifically the need for PSEG Nuclear to follow the National Bald Eagle Management Guidelines (Guidelines) in managing any future eagle activity in the vicinity of the Salem and Hope Creek Generating Stations. The final SEIS should also note that numerous areas of bald eagle nesting, foraging, and wintering habitat are mapped along the subject transmission lines. In correspondence of October 23, 2009, PSE&G agreed to notify FWS if the Guidelines cannot be followed in the course of transmission line maintenance. The

Department also requests that final SEIS address FWS's recommendations to minimize electrocution, collision risks to migratory birds and time of year restrictions for any tree clearing.

### **AQUATIC RESOURCES**

The Department is concerned that the continued re-licensing of the PSEG Nuclear plants will impact fish and wildlife resources associated with the continued operation of the project. During the initial project construction, and subsequent New Jersey Department of Environmental Protection Water Quality Permits (pursuant to the Clean Water Act), it was anticipated that numerous fish and wildlife resources would be impacted from the intake of up to 3 billion gallons of water per day for plant cooling needs. Estimates based on PSEG Nuclear's impingement and entrainment data indicate over 6 million pounds annually of fish and other marine life from the Delaware Bay are lost annually as a result of plant operation. The applicant asserted that the FWS's preferred alternative (installation of cooling towers) was not economically viable and instead developed an Estuarine Enhancement Program (EEP) feature for the life of the plant. The FWS requests that additional project features commensurate with project impacts be added to the existing EEP for implementation until such time that the project is finally closed.

### **CONCLUSION**

Continued operation of the Salem and Hope Creek Generating Stations is not likely to adversely affect the federally listed swamp pink and bog turtle. A key factor in this concurrence is PSE&G's continued adherence to conservation measures along the transmission lines that emanate from these plants. The Department requests that NRC clarify this situation in the final SEIS, and acknowledge that it must reinitiate Section 7 consultation for the continued operation of the Salem and Hope Creek Generating Stations if PSE&G should ever terminate its implementation of acceptable conservation measures along the transmission lines. The Department also requests NRC's attention to FWS recommendations to protect the bald eagle and other migratory birds. Additional project features should be added to the existing EEP, if the project continues to operate past the current license

Thank you for the opportunity to review and comment on this DEIS. If you need further information, please contact Ron Popowski (FWS) at (609) 241-7065. Please contact me at (617) 223-8565 if I can be of assistance.

Sincerely,



Andrew L. Raddant  
Regional Environmental Officer

Enclosures

Endnotes



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE



In Reply Refer To:  
2010-I-0417

New Jersey Field Office  
Ecological Services  
927 North Main Street, Building D  
Pleasantville, New Jersey 08232  
Tel: 609/646 9310  
Fax: 609/646 0352  
<http://www.fws.gov/northeast/njfieldoffice/>

JUN 29 2010

Bo Pham, Chief  
Project Branch 1, Division of License Renewal  
Office of Nuclear Reactor Regulation  
Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Dear Mr. Pham:

The U.S. Fish and Wildlife Service (Service) has reviewed your December 23, 2009 request for information on the presence of federally listed endangered and threatened species in the vicinity of the existing Salem and Hope Creek Generating Stations located on Artificial Island in Lower Alloways Creek Township, Salem County, New Jersey. PSEG Nuclear LLC (PSEG) has applied to the U.S. Nuclear Regulatory Commission (NRC) for renewal of the operating licenses for these plants, which expire in 2016 (Salem Unit 1), 2020 (Salem Unit 2), and 2026 (Hope). License renewal would extend the operating period of each reactor for an additional 20 years.

This letter addresses federally listed species in the vicinity of the Salem and Hope plants as well as four existing 500-kV transmission lines that emanate from the plants and extend along southern Salem, Gloucester, and Camden Counties in New Jersey and into New Castle County in Delaware. The proposed relicensing would not involve any expansion of existing facilities, structural modifications or other refurbishments, or change in existing management practices for the plants or the lines. This response has been coordinated with the Service's Chesapeake Bay Field Office regarding the portion of one transmission line that cross into Delaware. This response does not address all Service concerns for wildlife resources, nor any proposals for construction of new or expanded facilities.

#### AUTHORITY

This response is pursuant to Section 7 of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA) to ensure the protection of federally listed endangered and threatened species. These comments do not preclude separate review and comments by the Service pursuant to the National Environmental Policy Act of 1969 as amended (83 Stat. 852; 42 U.S.C. 4321 *et seq.*); the Bald and Golden Eagle Protection Act (54 Stat. 250; 16 U.S.C. 668-668d); or the December 22, 1993 Memorandum of Agreement among the U.S. Environmental Protection Agency, New Jersey Department of Environmental Protection (NJDEP), and the Service, if project implementation requires a permit from the NJDEP pursuant to the New Jersey Freshwater Wetlands Protection Act (N.J.S.A. 13:9B *et seq.*).

## **FEDERALLY LISTED SPECIES**

Via letter to PSEG dated September 9, 2009 (enclosed), the Service indicated that no federally listed species under Service jurisdiction are known to occur in the vicinity of the existing Salem or Hope Generating Stations.

Known occurrences and other areas of potential habitat for the federally listed (threatened) swamp pink (*Helonias bullata*), and areas of potential habitat for the federally listed (threatened) bog turtle (*Clemmys muhlenbergii*), occur along the Hope Creek/Salem to New Freedom and Salem to New Freedom South transmission lines.

Via letter dated October 23, 2009, PSEG adopted several conservation measures to avoid adverse effects to federally listed and candidate species from maintenance practices (including State-mandated vegetation control) along its transmission system throughout New Jersey, including the four transmission lines emanating from the Salem and Hope Creek Generating Stations. Based on these conservation measures, the Service concurred that PSEG's continued maintenance of its transmission lines in New Jersey is not likely to adversely affect federally listed or candidate species (see enclosed letter dated November 4, 2009).

The Service recommends inclusion of all adopted conservation measures in the Supplemental Environmental Impact Statement, and as conditions of any renewed NRC license.

## **OTHER SERVICE CONCERNS**

Please see our September 9, 2009 letter for Service recommendations regarding the bald eagle (*Haliaeetus leucocephalus*) and migratory birds.

## **CONCLUSION**

The Service recommends inclusion of PSEG's adopted conservation measures for transmission line maintenance in the Supplemental Environmental Impact Statement, and as conditions of any renewed NRC license. We appreciate NRC's attention to our recommendations to protect the bald eagle and migratory birds.

Please contact Wendy Walsh at (609) 383-3938, extension 48, if you have any questions or require further assistance regarding federally listed threatened or endangered species.

Sincerely,



Ron Popowski  
Assistant Supervisor



# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

New Jersey Field Office  
Ecological Services  
927 North Main Street, Building D  
Pleasantville, New Jersey 08232  
Tel: 609/646 9310  
Fax: 609/646 0352  
<http://www.fws.gov/northeast/njfieldoffice>

In Reply Refer to:

2009-I-0707

Raymond A. Tripodi, Manager  
Corporate Licenses and Permits  
PSEG Services Corporation  
80 Park Plaza, T17  
Newark, New Jersey 07102-4194  
Attention: Dr. David Grossmueller

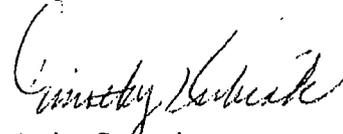
Dear Mr. Tripodi:

The U.S. Fish and Wildlife Service (Service) has reviewed your October 23, 2009 letter adopting conservation measures for federally listed species that Public Service Electric and Gas Company (PSE&G) will implement during vegetation maintenance activities within its existing electric transmission Right-of-Way (ROW) system, which is located in Sussex, Passaic, Bergen, Warren, Morris, Essex, Hudson, Hunterdon, Somerset, Union, Middlesex, Mercer, Burlington, Camden, Gloucester, and Salem Counties, New Jersey. PSE&G has applied to the New Jersey Department of Environmental Protection (NJDEP) for renewal of a general permit (000-02-0031.2) under the New Jersey Freshwater Wetlands Protection Act (N.J.S.A. 13:9B *et seq.*) to authorize vegetation maintenance within the PSE&G transmission system through 2014. PSE&G's adopted conservation measures were developed in coordination with the Service, pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) and the Bald and Golden Eagle Protection Act (54 Stat. 250; 16 U.S.C. 668-668d). The conservation measures refer to transmission system segments (spans) that have been identified by the Service as habitat for federally listed and candidate species. This information was transmitted to PSE&G as a GIS shapefile via electronic mail on September 30, 2009.

Based upon PSE&G's adoption of the conservation measures listed in your October 23, 2009 letter, the Service concurs that continued vegetation maintenance activities within the transmission system are not likely to adversely affect federally listed or candidate species. The conservation measures also include practices to avoid or minimize adverse impacts to bald eagles, other migratory birds, Great Swamp National Wildlife Refuge, and wetlands. The Service appreciates the cooperation of PSE&G to develop and adopt these measures. As described in your October 23, 2009 letter, PSE&G will coordinate annually with the Service to determine if any new locations or information regarding federally listed species has become available, and to consider if any of the conservation measures require modification.

Please contact Wendy Walsh at (609) 383-3938, extension 48, if you have any questions or require further assistance regarding federally listed threatened or endangered species.

Sincerely,

A handwritten signature in black ink, appearing to read "Cindy Kerk". The signature is written in a cursive style with a large initial "C".

Acting Supervisor

cc: Linda Fisher, DLUR  
Larry Torok, DLUR  
Steve Henry, Great Swamp NWR  
Coop Chavis, OLE  
Jorris Naiman, DOI Solicitor



October 23, 2009

Ms. Wendy Walsh  
U.S. Fish and Wildlife Service  
New Jersey Field Office  
927 North Main Street  
Heritage Square, Building D  
Pleasantville, New Jersey 08232

**RE: PUBLIC SERVICE ELECTRIC AND GAS COMPANY (PSE&G)  
FRESHWATER WETLANDS PERMIT NO. 000-02-0031.2  
ENDANGERED SPECIES COMPLIANCE DURING  
ELECTRIC TRANSMISSION RIGHT-OF WAY  
VEGETATION MAINTENANCE ACTIVITIES**

Dear Ms. Walsh:

Pursuant to your August 19, 2009 electronic mail correspondence, your May 28, 2008 letter, and subsequent coordination regarding vegetation maintenance along Public Service Electric and Gas Company (PSE&G) electric transmission Rights-of-Way (ROW), PSE&G is providing this letter to confirm our commitment to protecting both Federally and State listed threatened and endangered species. As discussed during our meeting of August 19, 2009, PSE&G is working to shift from vegetation maintenance which requires extensive tree cutting to one which maintains the ROWs by mowing brush and eventually grasses. As the new maintenance program continues, it is hoped that ROWs overgrown with woody vegetation will become the exception rather than the norm. PSE&G adopts the conservation measures recommended by the U.S. Fish and Wildlife Service (USFWS) for each species as follows:

**Indiana Bat**

- PSE&G will maintain a seasonal restriction on cutting trees greater than five (5) inches in diameter at breast height (dbh) from April 1 through November 15 in those spans identified by the USFWS as hibernacula foraging habitat (HI) and as hibernacula and maternity colony foraging habitat (HIMA).
- In spans identified as maternity colony foraging habitat (MA), PSE&G will maintain a seasonal restriction on cutting trees greater than five (5) inches in diameter at breast height (dbh) from April 1 through September 30.
- PSE&G does not believe it can fully implement USFWS's recommendation to "notify the Service before cutting any suitable roost tree at any time of year." The main purpose for PSE&G's application for the GP-1 was to obtain pre-approval for its vegetative maintenance activities in an attempt to avoid impact to Federal and/or State protected species, avoid numerous independent submittals to Federal and State regulators, and

avoid down time to PSE&G's work schedule while awaiting regulatory response. In consideration of the numerous seasonal tree cutting restrictions, which in certain areas can reduce the annual cutting season to 30 days, a notification / response requirement would adversely impact PSE&G's ability to complete its other regulatory obligations. As you are aware, the New Jersey Public Board of Utilities (NJBPU) regulations required PSE&G to clear its ROWs of woody vegetation (greater than three (3) feet) under the power lines and no woody vegetation greater than 15 feet in the areas adjacent to the power lines. However, within hibernation (HI) and/or maternity areas (MA), PSE&G will make every effort to trim and/or girdle (with or without herbicide) suitable roost trees instead of removing them, to the extent possible given the NJBPU vegetative maintenance requirements. Suitable roost trees are described in the USFWS document "Characteristics of Indiana Bat Summer Habitat."

- For spans marked as occurring within the Geographic Range of the bats (P), PSE&G will not cut more than five (5) trees greater than five (5) inches in diameter at breast height (dbh) per linear mile between April 1 and September 30 unless such a tree is found to exist at a height determined to pose a hazard to system reliability and/or PSE&G would violate its other regulatory obligations. Under such circumstances, PSE&G will notify USFWS of the tree location and our intention to cut or trim, and will implement additional site-specific USFWS recommendations if possible.

#### **Bog Turtle**

- PSE&G will utilize a recognized, qualified bog turtle surveyor to examine spans identified by the USFWS as potential habitat (P) or an extant occurrence (E) of the bog turtle. Areas identified by the surveyor as suitable bog turtle habitat, plus a 150-foot buffer, will be flagged prior to any vegetation maintenance activities being conducted in that span, and a recognized, qualified bog turtle surveyor will be on-site during maintenance activities in flagged areas.
- PSE&G will conduct all maintenance activities by hand within flagged areas; will avoid stepping on hummocks or tussocks when working in flagged areas; will not allow the use of motorized equipment in flagged areas; and will not allow the storage of materials or equipment in flagged areas.
- PSE&G will remove woody vegetation within the flagged areas by hand between October 15 and March 31; will not pull woody vegetation out by the roots in the flagged areas to prevent disturbing potential hibernacula; and will use only glyphosate-based herbicides applied manually and directly to stumps in the flagged areas.
- All flagging will be removed upon completion of work in the area.
- PSE&G will not apply herbicide in known nesting areas between June 1 and August 30 to protect the habitat. Known nesting areas include all flagged areas associated with an extant occurrence (E) of the bog turtle as identified by the USFWS and/or observation of an actual bog turtle in the field.
- In accordance with the timing restrictions set forth in the New Jersey Department of Environmental Protection's (NJDEP) existing "Utility Right-of-Way No-Harm Best Management Practices (2009)" PSE&G will avoid disturbance in areas identified by the USFWS and confirmed by a recognized, qualified surveyor as known or suitable bog

turtle habitat during nesting (May 1 – June 30). PSE&G will follow all other applicable bog turtle provisions of the most current version of the "Utility Right-of-Way No-Harm Best Management Practices," including any provisions that are more restrictive than those listed above.

- Upon completion of recognized, qualified bog turtle surveyor's results report, PSE&G will forward a copy to USFWS for its files.

#### **Swamp Pink**

- On ROW spans identified by USFWS as potential habitat (P) or an extant occurrence (E) of swamp pink, PSE&G will utilize a qualified botanist to survey any suitable forested wetland habitat on and adjacent to the ROW for the presence or absence of swamp pink. Survey reports will be provided to USFWS as surveys are completed.
- PSE&G will utilize a qualified botanist to flag a 200 foot radius around any identified swamp pink population and no maintenance activities of any kind will be initiated within the flagged areas without USFWS approval. All flagging will be removed upon completion of work in the area.
- Herbicide application within 500 feet of a known population will be to woody stumps only, and will be conducted manually.

#### **Dwarf Wedgemussel**

- PSE&G will conduct all vegetation maintenance activities by hand within 300 feet of streams identified by USFWS as potential habitat (P) for the dwarf wedgemussel. If herbicide is necessary in these areas, application will be to woody stumps only and will be conducted manually.

#### **Small Whorled Pogonia**

- PSE&G will conduct a preliminary habitat assessment along spans identified by USFWS as potential habitat (P) for small whorled pogonia to determine if any areas of suitable upland woods are designated for removal. If so, PSE&G will arrange for a qualified botanist to survey such woods for the presence or absence of this species between late July and mid-September (before frost). The habitat assessment and results of any survey will be provided to USFWS upon completion of the survey. Further consultation will be conducted if any small whorled pogonia plants are found.

#### **Other Listed Plants**

- In spans identified by USFWS as potential habitat (P) for Knieskern's beaked-rush, American chaffseed, and/or sensitive joint vetch, PSE&G will not use herbicide and will raise mower blades to at least 6 inches above the ground. PSE&G does not perform vegetative maintenance activities in the tidal marshes required by sensitive joint vetch.

#### **Bog Asphodel**

- PSE&G will arrange for a qualified botanist to survey suitable habitats in and adjacent to spans identified by USFWS as potential habitat (P) for bog asphodel for the presence or

absence of this Federal candidate species. Survey results will be provided to USFWS. Further consultation will be conducted if any bog asphodel plants are found at the completion of the survey.

### **Bald Eagle**

- It is anticipated that PSE&G will comply with the National Bald Eagle Management Guidelines; however, PSE&G wishes to reserve the right to discuss this matter until such time as we complete our review of the Guidelines. PSE&G will notify the USFWS if the Guidelines cannot be implemented, to determine if a permit is required under the Bald and Golden Eagle Protection Act.
- Unless NJDEP indicates otherwise, PSE&G will, in accordance with the timing restrictions set forth in NJDEP's existing "Utility Right-of-Way No-Harm Best Management Practices (2009)," PSE&G avoid disturbance within 1000 feet of areas identified by the NJDEP as eagle nesting and foraging buffers during nesting (December 15 August 31).

It should be noted that the NJDEP is currently conducting an assessment of PSE&G's entire electric transmission network in order to identify spans containing State listed plants and animals, including bald eagles.

PSE&G will contact USFWS annually at least 60 days prior to the start of vegetative maintenance activities to request any new information regarding the locations of potential habitat or extant occurrences of federally listed species within its electric transmission system. During this annual coordination process, the continued implementation of the above-listed conservation measures, with any appropriate modifications, will be confirmed. It is PSE&G's intention to perform the majority of our transmission vegetation maintenance activities between October 1 through March 31 so as to accommodate the timing restrictions for most Federal and State threatened and endangered species. Conducting maintenance during these winter months will also minimize impacts to nesting birds, which are protected under the Migratory Bird Treaty Act. As an additional best management practice to protect natural resources, PSE&G will raise mower blades to at least 6 inches above the ground in any areas authorized by NJDEP to use motorized equipment in wetlands.

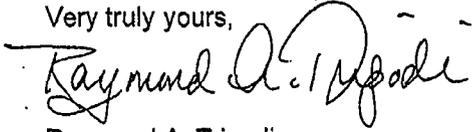
In addition, PSE&G is exploring the potential to mark electric transmission structures) indicating spans with environmental restrictions which include, but are not limited to: areas which do not receive mechanized maintenance; areas with threatened and endangered species timing restrictions, wetlands, streams and riparian zones; and areas which require maintenance activities be conducted by hand. PSE&G is exploring several methods of marking electric transmission structures and will keep the USFWS updated on the process.

As a final item, PSE&G has been working with the USFWS personnel at the Great Swamp National Wildlife Refuge (GSNWR) to restore bog turtle habitat. Refuge staff have expressed an interest in participating in common reed eradication projects along the ROW within the Refuge. To date, Refuge staff members have not expressed any preferred vegetation management practices however PSE&G will continue to coordinate directly with Refuge staff to develop vegetation management tools which complement the management goals of the Refuge. PSE&G will include a discussion of future vegetative maintenance practices within GSNWR in the final restoration plan that will be developed in cooperation with Refuge staff.

If you have any questions or require additional information, please contact Dr. David Grossmueller of our offices at (973) 430-5228.

---

Very truly yours,

A handwritten signature in black ink, appearing to read "Raymond A. Tripodi". The signature is fluid and cursive, with a large initial "R" and "T".

Raymond A. Tripodi  
Manager - Corporate Licenses and Permits

cc: Larry Torok, NJDEP  
Linder Fisher, NJDEP



In Reply Refer to:

2009-I-0417

## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

New Jersey Field Office  
Ecological Services  
927 North Main Street, Building D  
Pleasantville, New Jersey 08232  
Tel: 609/646 9310  
Fax: 609/646 0352  
<http://www.fws.gov/northeast/njfieldoffice>



31 9 2009

Edward J. Keating, Sr. Environmental Advisor  
PSEG Nuclear LLC  
P.O. Box 236  
Hancocks Bridge, New Jersey 08038-0236

Dear Mr. Keating:

The U.S. Fish and Wildlife Service (Service) has reviewed your March 4, 2009 request for information on the presence of federally listed endangered and threatened species in the vicinity of the existing Salem and Hope Creek Generating Stations located on Artificial Island in Lower Alloways Creek Township, Salem County, New Jersey. PSEG Nuclear LLC (PSEG) plans to apply to the U.S. Nuclear Regulatory Commission (NRC) for renewal of the operating licenses for these plants, which expire in 2016 (Salem Unit 1), 2020 (Salem Unit 2), and 2026 (Hope). License renewal would extend the operating period of each reactor for an additional 20 years.

This letter addresses federally listed species in the vicinity of the Salem and Hope plants as well as four existing 500-kV transmission lines that emanate from the plants and extend along southern Salem, Gloucester, and Camden Counties in New Jersey and into New Castle County in Delaware. The proposed relicensing would not involve any expansion of existing facilities, structural modifications or other refurbishments, or change in existing management practices for the plants or the lines. This response has been coordinated with the Service's Chesapeake Bay Field Office regarding the portion of one transmission line that cross into Delaware. This response does not address all Service concerns for wildlife resources, nor any proposals for construction of new or expanded facilities.

#### **AUTHORITY**

This response is pursuant to Section 7 the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA) to ensure the protection of federally listed endangered and threatened species; the Bald and Golden Eagle Protection Act (54 Stat. 250; 16 U.S.C. 668-668d) (Eagle Act); and the Migratory Bird Treaty Act of 1918 (40 Stat. 755; 16 U.S.C. 703-712), as amended. These comments do not preclude separate review and comments by the Service pursuant to the National Environmental Policy Act of 1969 as amended (83 Stat. 852; 42 U.S.C. 4321 *et seq.*) (NEPA).

## FEDERALLY LISTED SPECIES

No federally listed species under Service jurisdiction are known to occur in the vicinity of the existing Salem or Hope Generating Stations.

Known occurrences and other areas of potential habitat for the federally listed (threatened) swamp pink (*Helonias bullata*), and areas of potential habitat for the federally listed (threatened) bog turtle (*Clemmys muhlenbergii*), occur along the Hope Creek/Salem to New Freedom and Salem to New Freedom South transmission lines. PSEG's current maintenance practices along these lines, including State-mandated vegetation control, may adversely affect these species.

The Service is currently coordinating with PSEG to review all of its 5,402 transmission line spans in New Jersey. When the review is complete, the Service will transmit a Geographic Information System (GIS) layer to PSEG's Environment, Health and Safety Department indicating the presence or potential presence of federally listed species along each span. Concurrent with the Service's review, PSEG is considering written adoption of Service-recommended conservation measures for each federally listed species that could potentially occur along the transmission spans. The Service recommends referencing this coordination process in PSEG's application to the NRC. We also recommend inclusion of all adopted conservation measures in the NEPA documentation for the license renewals. In addition, the Service will recommend inclusion of all adopted conservation measures in PSEG's renewed transmission line maintenance General Permit under the New Jersey Freshwater Wetlands Protection Act (N.J.S.A. 13:9B *et seq.*).

## BALD EAGLE

Numerous areas of nesting, foraging, and wintering habitat for the bald eagle (*Haliaeetus leucocephalus*) are mapped along the subject transmission lines by the New Jersey Department of Environmental Protection. This species could also occur along the line in Delaware. The bald eagle was removed from the Federal List of Endangered and Threatened Wildlife effective August 8, 2007. The bald eagle continues to be federally protected under the Eagle Act and the Migratory Bird Treaty Act. In addition, the bald eagle remains a State-listed species under the New Jersey Endangered and Nongame Species Conservation Act (N.J.S.A. 23:2A *et seq.*), which carries protections under the State land use regulation program. Disturbance of bald eagle nests is also prohibited under Delaware State law (7 Del. C. 1953, § 748; 57 Del. Laws, c. 88; 70 Del. Laws, c. 275, §§ 74-77), and new regulations have been proposed in Delaware to strengthen protections for bald eagles. For the continued protection of bald eagles, and to ensure compliance with Federal and State laws, the Service recommends managing bald eagles in accordance with the National Bald Eagle Management Guidelines and all applicable State regulations. Links to New Jersey State agencies and the Guidelines are available on this office's web site at <http://www.fws.gov/northeast/njfieldoffice/Endangered>. Information on the bald eagle in Delaware is available from the Delaware Natural Heritage and Endangered Species Program; contact information is provided in the enclosed letter from the Chesapeake Bay Field Office.

## MIGRATORY BIRDS

The Migratory Bird Treaty Act prohibits the take of migratory birds, their parts, nests, and eggs, even when incidental to an otherwise lawful activity. To minimize avian electrocution and collision risks, the Service recommends that PSEG modify the four subject transmission lines as needed for consistency with the *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006*. If necessary, upgrades to the *State of the Art* standards can be phased in over time in conjunction with routine maintenance along the lines. If PSEG has not already done so, the Service also recommends preparation of an Avian Protection Plan (APP). The *Suggested Practices* document is available from the Avian Powerline Interaction Committee (<http://www.aplic.org/>). Guidance for preparing APPs is available from the Service (<http://www.fws.gov/migratorybirds>, under Bird Hazards).

## CONCLUSION

Further consultation with the Service under Section 7 of the ESA is necessary to evaluate and minimize adverse effects to federally listed species from PSEG's current transmission line maintenance practices in New Jersey. The Service appreciates PSEG's cooperation to address impacts from transmission line maintenance on a State-wide basis. We recommend that PSEG reference this effort in its application to NRC, and in NEPA documents for the relicensing. The Service recommends that PSEG comply with the above-referenced guidance documents to minimize impacts to the bald eagle and other migratory birds.

Except for the above-mentioned species, no other federally listed or proposed threatened or endangered flora or fauna are known to occur within the vicinity of the proposed project. If additional information on listed and proposed species becomes available or if project plans change, this determination may be reconsidered.

Please refer to our web site at <http://www.fws.gov/northeast/njfieldoffice/Endangered/> for current lists of federally listed and candidate species in New Jersey. The web site also provides contacts for obtaining current information regarding State-listed and other species of concern from the New Jersey Natural Heritage and Endangered and Nongame Species Programs. Contact information for the Delaware Natural Heritage and Endangered Species Program is provided in the enclosed letter from the Chesapeake Bay Field Office.

Please contact Wendy Walsh at (609) 383-3938, extension 48, if you have any questions or require further assistance regarding federally listed threatened or endangered species.

Sincerely,



Acting Supervisor

Enclosures



## United States Department of the Interior

OFFICE OF THE SECRETARY  
Office of Environmental Policy and Compliance  
408 Atlantic Avenue – Room 142  
Boston, Massachusetts 02110-3334



January 14, 2011

9043.1  
ER 10/926

Bo Pham, Chief  
Project Branch 1, Division of License Renewal  
Office of Nuclear Reactor Regulation  
Nuclear Regulatory Commission  
Washington, D.C. 20555-0001  
Attn: Leslie Perkins

**RE: COMMENTS**  
**Draft Environmental Impact Statement for License Renewal of Nuclear Plants,**  
**Regarding Hope Creek Generating Station and Salem Nuclear Generating Station,**  
**Units 1 and 2, Supplement 45 to NUREG-1437, Lower Alloway Creek Township,**  
**Salem County, New Jersey**

Dear Mr. Pham:

The U. S. Department of the Interior (Department) has reviewed the October 2010 Draft Plant-Specific Supplement 45 to the Generic Environmental Impact Statement for License Renewal for the Hope Creek Generating Station and Salem Nuclear Generating Station, Units 1 and 2 (draft SEIS). The generating stations are located on Artificial Island in Lower Alloway Creek Township, Salem County, New Jersey. Notice of availability for the draft SEIS was published in the October 29, 2010, Federal Register (Vol. 75, No. 209, page 66756). PSEG Nuclear, LLC (PSEG Nuclear) has applied to the U.S. Nuclear Regulatory Commission (NRC) for renewal of the operating licenses for these plants, which expire in 2016 (Salem Unit 1), 2020 (Salem Unit 2), and 2026 (Hope). License renewal would extend the operating period of each reactor for an additional 20 years. Four existing 500-kV transmission lines emanate from the plants and extend along southern Salem, Gloucester, and Camden Counties in New Jersey and into New Castle County in Delaware. The proposed relicensing would not involve any expansion of existing facilities, structural modifications or other refurbishments, or change in existing management practices for the plants or the lines. This response does not address any proposals for construction of new or expanded facilities.

### **AUTHORITY**

This response is pursuant to the National Environmental Policy Act of 1969 as amended (83 Stat. 852; 42 U.S.C. 4321 *et seq.*); the Fish and Wildlife Coordination Act (48 Stat. 401; 16 U.S.C.

661 *et seq.*); Section 7 of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA); the Bald and Golden Eagle Protection Act (54 Stat. 250; 16 U.S.C. 668-668d) (Eagle Act); and the Migratory Bird Treaty Act of 1918 (40 Stat. 755, as amended; 16 U.S.C. 703-712).

## **FEDERALLY LISTED SPECIES**

The Department's U.S. Fish and Wildlife Service (FWS) provided relevant information and recommendations regarding federally listed species via letters dated September 9, 2009; November 4, 2009; and June 29, 2010 (enclosed). No federally listed species under FWS jurisdiction are known to occur in the vicinity of the existing Salem or Hope Generating Stations. However, known occurrences and other areas of potential habitat for the federally listed (threatened) swamp pink (*Helonias bullata*), and areas of potential habitat for the federally listed (threatened) bog turtle (*Clemmys muhlenbergii*), occur along the Hope Creek/Salem to New Freedom and Salem to New Freedom South transmission lines.

Via letter dated October 23, 2009 (enclosed), Public Service Electric and Gas Company (PSE&G) adopted several conservation measures to avoid adverse effects to federally listed and candidate species from State-mandated vegetation management and other maintenance activities along its transmission system throughout New Jersey, including the four transmission lines emanating from the Salem and Hope Creek Generating Stations. FWS concurred with those conservation measures in its letter of November 4, 2009.

FWS previously recommended that NRC include of all PSE&G's adopted conservation measures in the SEIS, and as conditions of any renewed license. This recommendation is not reflected in the draft SEIS. During a January 4, 2011, conference call, NRC clarified that PSE&G is a wholly separate company from PSEG Nuclear, and is not subject to any provisions of PSEG Nuclear's license to operate the Salem and Hope Creek Generating Stations. On the call, FWS indicated that PSE&G's continued adherence to acceptable conservation measures along the Hope Creek/Salem to New Freedom and Salem to New Freedom South transmission lines is essential to avoiding adverse impacts to federally listed species. The Department requests that NRC clarify potential effect in the final SEIS, and acknowledge that it must reinitiate Section 7 consultation for the continued operation of the Salem and Hope Creek Generating Stations if PSE&G should ever terminate its implementation of acceptable conservation measures along the transmission lines.

## **BALD EAGLE AND MIGRATORY BIRDS**

In their September 9, 2009, letter, FWS provided recommendations regarding the bald eagle (*Haliaeetus leucocephalus*) and other migratory birds. The FWS recommendations are not reflected in the draft SEIS. The Department requests that NRC address requirements of the Eagle Act in the final SEIS, specifically the need for PSEG Nuclear to follow the National Bald Eagle Management Guidelines (Guidelines) in managing any future eagle activity in the vicinity of the Salem and Hope Creek Generating Stations. The final SEIS should also note that numerous areas of bald eagle nesting, foraging, and wintering habitat are mapped along the subject transmission lines. In correspondence of October 23, 2009, PSE&G agreed to notify FWS if the Guidelines cannot be followed in the course of transmission line maintenance. The

Department also requests that final SEIS address FWS's recommendations to minimize electrocution, collision risks to migratory birds and time of year restrictions for any tree clearing.

### **AQUATIC RESOURCES**

The Department is concerned that the continued re-licensing of the PSEG Nuclear plants will impact fish and wildlife resources associated with the continued operation of the project. During the initial project construction, and subsequent New Jersey Department of Environmental Protection Water Quality Permits (pursuant to the Clean Water Act), it was anticipated that numerous fish and wildlife resources would be impacted from the intake of up to 3 billion gallons of water per day for plant cooling needs. Estimates based on PSEG Nuclear's impingement and entrainment data indicate over 6 million pounds annually of fish and other marine life from the Delaware Bay are lost annually as a result of plant operation. The applicant asserted that the FWS's preferred alternative (installation of cooling towers) was not economically viable and instead developed an Estuarine Enhancement Program (EEP) feature for the life of the plant. The FWS requests that additional project features commensurate with project impacts be added to the existing EEP for implementation until such time that the project is finally closed.

### **CONCLUSION**

Continued operation of the Salem and Hope Creek Generating Stations is not likely to adversely affect the federally listed swamp pink and bog turtle. A key factor in this concurrence is PSE&G's continued adherence to conservation measures along the transmission lines that emanate from these plants. The Department requests that NRC clarify this situation in the final SEIS, and acknowledge that it must reinitiate Section 7 consultation for the continued operation of the Salem and Hope Creek Generating Stations if PSE&G should ever terminate its implementation of acceptable conservation measures along the transmission lines. The Department also requests NRC's attention to FWS recommendations to protect the bald eagle and other migratory birds. Additional project features should be added to the existing EEP, if the project continues to operate past the current license

Thank you for the opportunity to review and comment on this DEIS. If you need further information, please contact Ron Popowski (FWS) at (609) 241-7065. Please contact me at (617) 223-8565 if I can be of assistance.

Sincerely,



Andrew L. Raddant  
Regional Environmental Officer

Enclosures

*Endnotes*



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

New Jersey Field Office  
Ecological Services  
927 North Main Street, Building D  
Pleasantville, New Jersey 08232  
Tel: 609/646 9310  
Fax: 609/646 0352

<http://www.fws.gov/northeast/njfieldoffice/>



In Reply Refer To:  
2010-I-0417

JUN 29 2010

Bo Pham, Chief  
Project Branch 1, Division of License Renewal  
Office of Nuclear Reactor Regulation  
Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Dear Mr. Pham:

The U.S. Fish and Wildlife Service (Service) has reviewed your December 23, 2009 request for information on the presence of federally listed endangered and threatened species in the vicinity of the existing Salem and Hope Creek Generating Stations located on Artificial Island in Lower Alloways Creek Township, Salem County, New Jersey. PSEG Nuclear LLC (PSEG) has applied to the U.S. Nuclear Regulatory Commission (NRC) for renewal of the operating licenses for these plants, which expire in 2016 (Salem Unit 1), 2020 (Salem Unit 2), and 2026 (Hope). License renewal would extend the operating period of each reactor for an additional 20 years.

This letter addresses federally listed species in the vicinity of the Salem and Hope plants as well as four existing 500-kV transmission lines that emanate from the plants and extend along southern Salem, Gloucester, and Camden Counties in New Jersey and into New Castle County in Delaware. The proposed relicensing would not involve any expansion of existing facilities, structural modifications or other refurbishments, or change in existing management practices for the plants or the lines. This response has been coordinated with the Service's Chesapeake Bay Field Office regarding the portion of one transmission line that cross into Delaware. This response does not address all Service concerns for wildlife resources, nor any proposals for construction of new or expanded facilities.

#### **AUTHORITY**

This response is pursuant to Section 7 of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA) to ensure the protection of federally listed endangered and threatened species. These comments do not preclude separate review and comments by the Service pursuant to the National Environmental Policy Act of 1969 as amended (83 Stat. 852; 42 U.S.C. 4321 *et seq.*); the Bald and Golden Eagle Protection Act (54 Stat. 250; 16 U.S.C. 668-668d); or the December 22, 1993 Memorandum of Agreement among the U.S. Environmental Protection Agency, New Jersey Department of Environmental Protection (NJDEP), and the Service, if project implementation requires a permit from the NJDEP pursuant to the New Jersey Freshwater Wetlands Protection Act (N.J.S.A. 13:9B *et seq.*).

## FEDERALLY LISTED SPECIES

Via letter to PSEG dated September 9, 2009 (enclosed), the Service indicated that no federally listed species under Service jurisdiction are known to occur in the vicinity of the existing Salem or Hope Generating Stations.

Known occurrences and other areas of potential habitat for the federally listed (threatened) swamp pink (*Helonias bullata*), and areas of potential habitat for the federally listed (threatened) bog turtle (*Clemmys muhlenbergii*), occur along the Hope Creek/Salem to New Freedom and Salem to New Freedom South transmission lines.

Via letter dated October 23, 2009, PSEG adopted several conservation measures to avoid adverse effects to federally listed and candidate species from maintenance practices (including State-mandated vegetation control) along its transmission system throughout New Jersey, including the four transmission lines emanating from the Salem and Hope Creek Generating Stations. Based on these conservation measures, the Service concurred that PSEG's continued maintenance of its transmission lines in New Jersey is not likely to adversely affect federally listed or candidate species (see enclosed letter dated November 4, 2009).

The Service recommends inclusion of all adopted conservation measures in the Supplemental Environmental Impact Statement, and as conditions of any renewed NRC license.

## OTHER SERVICE CONCERNS

Please see our September 9, 2009 letter for Service recommendations regarding the bald eagle (*Haliaeetus leucocephalus*) and migratory birds.

## CONCLUSION

The Service recommends inclusion of PSEG's adopted conservation measures for transmission line maintenance in the Supplemental Environmental Impact Statement, and as conditions of any renewed NRC license. We appreciate NRC's attention to our recommendations to protect the bald eagle and migratory birds.

Please contact Wendy Walsh at (609) 383-3938, extension 48, if you have any questions or require further assistance regarding federally listed threatened or endangered species.

Sincerely,



Ron Popowski  
Assistant Supervisor



# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

New Jersey Field Office  
Ecological Services  
927 North Main Street, Building D  
Pleasantville, New Jersey 08232  
Tel: 609/646 9310  
Fax: 609/646 0352  
<http://www.fws.gov/northeast/njfieldoffice>

In Reply Refer to:

2009-I-0707

Raymond A. Tripodi, Manager  
Corporate Licenses and Permits  
PSEG Services Corporation  
80 Park Plaza, T17  
Newark, New Jersey 07102-4194  
Attention: Dr. David Grossmueller

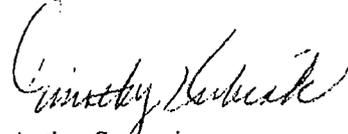
Dear Mr. Tripodi:

The U.S. Fish and Wildlife Service (Service) has reviewed your October 23, 2009 letter adopting conservation measures for federally listed species that Public Service Electric and Gas Company (PSE&G) will implement during vegetation maintenance activities within its existing electric transmission Right-of-Way (ROW) system, which is located in Sussex, Passaic, Bergen, Warren, Morris, Essex, Hudson, Hunterdon, Somerset, Union, Middlesex, Mercer, Burlington, Camden, Gloucester, and Salem Counties, New Jersey. PSE&G has applied to the New Jersey Department of Environmental Protection (NJDEP) for renewal of a general permit (000-02-0031.2) under the New Jersey Freshwater Wetlands Protection Act (N.J.S.A. 13:9B *et seq.*) to authorize vegetation maintenance within the PSE&G transmission system through 2014. PSE&G's adopted conservation measures were developed in coordination with the Service, pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) and the Bald and Golden Eagle Protection Act (54 Stat. 250; 16 U.S.C. 668-668d). The conservation measures refer to transmission system segments (spans) that have been identified by the Service as habitat for federally listed and candidate species. This information was transmitted to PSE&G as a GIS shapefile via electronic mail on September 30, 2009.

Based upon PSE&G's adoption of the conservation measures listed in your October 23, 2009 letter, the Service concurs that continued vegetation maintenance activities within the transmission system are not likely to adversely affect federally listed or candidate species. The conservation measures also include practices to avoid or minimize adverse impacts to bald eagles, other migratory birds, Great Swamp National Wildlife Refuge, and wetlands. The Service appreciates the cooperation of PSE&G to develop and adopt these measures. As described in your October 23, 2009 letter, PSE&G will coordinate annually with the Service to determine if any new locations or information regarding federally listed species has become available, and to consider if any of the conservation measures require modification.

Please contact Wendy Walsh at (609) 383-3938, extension 48, if you have any questions or require further assistance regarding federally listed threatened or endangered species.

Sincerely,

A handwritten signature in cursive script, appearing to read "Cindy Herbert".

Acting Supervisor

cc: Linda Fisher, DLUR  
Larry Torok, DLUR  
Steve Henry, Great Swamp NWR  
Coop Chavis, OLE  
Jorris Naiman, DOI Solicitor



October 23, 2009

Ms. Wendy Walsh  
U.S. Fish and Wildlife Service  
New Jersey Field Office  
927 North Main Street  
Heritage Square, Building D  
Pleasantville, New Jersey 08232

**RE: PUBLIC SERVICE ELECTRIC AND GAS COMPANY (PSE&G)  
FRESHWATER WETLANDS PERMIT NO. 000-02-0031.2  
ENDANGERED SPECIES COMPLIANCE DURING  
ELECTRIC TRANSMISSION RIGHT-OF WAY  
VEGETATION MAINTENANCE ACTIVITIES**

Dear Ms. Walsh:

Pursuant to your August 19, 2009 electronic mail correspondence, your May 28, 2008 letter, and subsequent coordination regarding vegetation maintenance along Public Service Electric and Gas Company (PSE&G) electric transmission Rights-of-Way (ROW), PSE&G is providing this letter to confirm our commitment to protecting both Federally and State listed threatened and endangered species. As discussed during our meeting of August 19, 2009, PSE&G is working to shift from vegetation maintenance which requires extensive tree cutting to one which maintains the ROWs by mowing brush and eventually grasses. As the new maintenance program continues, it is hoped that ROWs overgrown with woody vegetation will become the exception rather than the norm. PSE&G adopts the conservation measures recommended by the U.S. Fish and Wildlife Service (USFWS) for each species as follows:

**Indiana Bat**

- PSE&G will maintain a seasonal restriction on cutting trees greater than five (5) inches in diameter at breast height (dbh) from April 1 through November 15 in those spans identified by the USFWS as hibernacula foraging habitat (HI) and as hibernacula and maternity colony foraging habitat (HIMA).
- In spans identified as maternity colony foraging habitat (MA), PSE&G will maintain a seasonal restriction on cutting trees greater than five (5) inches in diameter at breast height (dbh) from April 1 through September 30.
- PSE&G does not believe it can fully implement USFWS's recommendation to "notify the Service before cutting any suitable roost tree at any time of year." The main purpose for PSE&G's application for the GP-1 was to obtain pre-approval for its vegetative maintenance activities in an attempt to avoid impact to Federal and/or State protected species, avoid numerous independent submittals to Federal and State regulators, and

avoid down time to PSE&G's work schedule while awaiting regulatory response. In consideration of the numerous seasonal tree cutting restrictions, which in certain areas can reduce the annual cutting season to 30 days, a notification / response requirement would adversely impact PSE&G's ability to complete its other regulatory obligations. As you are aware, the New Jersey Public Board of Utilities (NJBPU) regulations required PSE&G to clear its ROWs of woody vegetation (greater than three (3) feet) under the power lines and no woody vegetation greater than 15 feet in the areas adjacent to the power lines. However, within hibernation (HI) and/or maternity areas (MA), PSE&G will make every effort to trim and/or girdle (with or without herbicide) suitable roost trees instead of removing them, to the extent possible given the NJBPU vegetative maintenance requirements. Suitable roost trees are described in the USFWS document "Characteristics of Indiana Bat Summer Habitat."

- For spans marked as occurring within the Geographic Range of the bats (P), PSE&G will not cut more than five (5) trees greater than five (5) inches in diameter at breast height (dbh) per linear mile between April 1 and September 30 unless such a tree is found to exist at a height determined to pose a hazard to system reliability and/or PSE&G would violate its other regulatory obligations. Under such circumstances, PSE&G will notify USFWS of the tree location and our intention to cut or trim, and will implement additional site-specific USFWS recommendations if possible.

#### **Bog Turtle**

- PSE&G will utilize a recognized, qualified bog turtle surveyor to examine spans identified by the USFWS as potential habitat (P) or an extant occurrence (E) of the bog turtle. Areas identified by the surveyor as suitable bog turtle habitat, plus a 150-foot buffer, will be flagged prior to any vegetation maintenance activities being conducted in that span, and a recognized, qualified bog turtle surveyor will be on-site during maintenance activities in flagged areas.
- PSE&G will conduct all maintenance activities by hand within flagged areas; will avoid stepping on hummocks or tussocks when working in flagged areas; will not allow the use of motorized equipment in flagged areas; and will not allow the storage of materials or equipment in flagged areas.
- PSE&G will remove woody vegetation within the flagged areas by hand between October 15 and March 31; will not pull woody vegetation out by the roots in the flagged areas to prevent disturbing potential hibernacula; and will use only glyphosate-based herbicides applied manually and directly to stumps in the flagged areas.
- All flagging will be removed upon completion of work in the area.
- PSE&G will not apply herbicide in known nesting areas between June 1 and August 30 to protect the habitat. Known nesting areas include all flagged areas associated with an extant occurrence (E) of the bog turtle as identified by the USFWS and/or observation of an actual bog turtle in the field.
- In accordance with the timing restrictions set forth in the New Jersey Department of Environmental Protection's (NJDEP) existing "Utility Right-of-Way No-Harm Best Management Practices (2009)" PSE&G will avoid disturbance in areas identified by the USFWS and confirmed by a recognized, qualified surveyor as known or suitable bog

turtle habitat during nesting (May 1 – June 30). PSE&G will follow all other applicable bog turtle provisions of the most current version of the "Utility Right-of-Way No-Harm Best Management Practices," including any provisions that are more restrictive than those listed above.

- Upon completion of recognized, qualified bog turtle surveyor's results report, PSE&G will forward a copy to USFWS for its files.

#### **Swamp Pink**

- On ROW spans identified by USFWS as potential habitat (P) or an extant occurrence (E) of swamp pink, PSE&G will utilize a qualified botanist to survey any suitable forested wetland habitat on and adjacent to the ROW for the presence or absence of swamp pink. Survey reports will be provided to USFWS as surveys are completed.
- PSE&G will utilize a qualified botanist to flag a 200 foot radius around any identified swamp pink population and no maintenance activities of any kind will be initiated within the flagged areas without USFWS approval. All flagging will be removed upon completion of work in the area.
- Herbicide application within 500 feet of a known population will be to woody stumps only, and will be conducted manually.

#### **Dwarf Wedgemussel**

- PSE&G will conduct all vegetation maintenance activities by hand within 300 feet of streams identified by USFWS as potential habitat (P) for the dwarf wedgemussel. If herbicide is necessary in these areas, application will be to woody stumps only and will be conducted manually.

#### **Small Whorled Pogonia**

- PSE&G will conduct a preliminary habitat assessment along spans identified by USFWS as potential habitat (P) for small whorled pogonia to determine if any areas of suitable upland woods are designated for removal. If so, PSE&G will arrange for a qualified botanist to survey such woods for the presence or absence of this species between late July and mid-September (before frost). The habitat assessment and results of any survey will be provided to USFWS upon completion of the survey. Further consultation will be conducted if any small whorled pogonia plants are found.

#### **Other Listed Plants**

- In spans identified by USFWS as potential habitat (P) for Knieskern's beaked-rush, American chaffseed, and/or sensitive joint vetch, PSE&G will not use herbicide and will raise mower blades to at least 6 inches above the ground. PSE&G does not perform vegetative maintenance activities in the tidal marshes required by sensitive joint vetch.

#### **Bog Asphodel**

- PSE&G will arrange for a qualified botanist to survey suitable habitats in and adjacent to spans identified by USFWS as potential habitat (P) for bog asphodel for the presence or

absence of this Federal candidate species. Survey results will be provided to USFWS. Further consultation will be conducted if any bog asphodel plants are found at the completion of the survey.

### **Bald Eagle**

- It is anticipated that PSE&G will comply with the National Bald Eagle Management Guidelines; however, PSE&G wishes to reserve the right to discuss this matter until such time as we complete our review of the Guidelines. PSE&G will notify the USFWS if the Guidelines cannot be implemented, to determine if a permit is required under the Bald and Golden Eagle Protection Act.
- Unless NJDEP indicates otherwise, PSE&G will, in accordance with the timing restrictions set forth in NJDEP's existing "Utility Right-of-Way No-Harm Best Management Practices (2009)," PSE&G avoid disturbance within 1000 feet of areas identified by the NJDEP as eagle nesting and foraging buffers during nesting (December 15 August 31).

It should be noted that the NJDEP is currently conducting an assessment of PSE&G's entire electric transmission network in order to identify spans containing State listed plants and animals, including bald eagles.

PSE&G will contact USFWS annually at least 60 days prior to the start of vegetative maintenance activities to request any new information regarding the locations of potential habitat or extant occurrences of federally listed species within its electric transmission system. During this annual coordination process, the continued implementation of the above-listed conservation measures, with any appropriate modifications, will be confirmed. It is PSE&G's intention to perform the majority of our transmission vegetation maintenance activities between October 1 through March 31 so as to accommodate the timing restrictions for most Federal and State threatened and endangered species. Conducting maintenance during these winter months will also minimize impacts to nesting birds, which are protected under the Migratory Bird Treaty Act. As an additional best management practice to protect natural resources, PSE&G will raise mower blades to at least 6 inches above the ground in any areas authorized by NJDEP to use motorized equipment in wetlands.

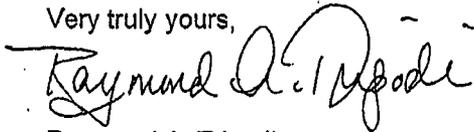
In addition, PSE&G is exploring the potential to mark electric transmission structures) indicating spans with environmental restrictions which include, but are not limited to: areas which do not receive mechanized maintenance; areas with threatened and endangered species timing restrictions, wetlands, streams and riparian zones; and areas which require maintenance activities be conducted by hand. PSE&G is exploring several methods of marking electric transmission structures and will keep the USFWS updated on the process.

As a final item, PSE&G has been working with the USFWS personnel at the Great Swamp National Wildlife Refuge (GSNWR) to restore bog turtle habitat. Refuge staff have expressed an interest in participating in common reed eradication projects along the ROW within the Refuge. To date, Refuge staff members have not expressed any preferred vegetation management practices however PSE&G will continue to coordinate directly with Refuge staff to develop vegetation management tools which complement the management goals of the Refuge. PSE&G will include a discussion of future vegetative maintenance practices within GSNWR in the final restoration plan that will be developed in cooperation with Refuge staff.

If you have any questions or require additional information, please contact Dr. David Grossmueller of our offices at (973) 430-5228.

---

Very truly yours,

A handwritten signature in cursive script that reads "Raymond A. Tripodi". The signature is written in black ink and is positioned above the printed name.

Raymond A. Tripodi  
Manager - Corporate Licenses and Permits

cc: Larry Torok, NJDEP  
Linder Fisher, NJDEP



In Reply Refer to:

2009-1-0417

## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

New Jersey Field Office  
Ecological Services  
927 North Main Street, Building D  
Pleasantville, New Jersey 08232  
Tel: 609/646 9310  
Fax: 609/646 0352  
<http://www.fws.gov/northeast/njfieldoffice>



03/09/2009

Edward J. Keating, Sr. Environmental Advisor  
PSEG Nuclear LLC  
P.O. Box 236  
Hancocks Bridge, New Jersey 08038-0236

Dear Mr. Keating:

The U.S. Fish and Wildlife Service (Service) has reviewed your March 4, 2009 request for information on the presence of federally listed endangered and threatened species in the vicinity of the existing Salem and Hope Creek Generating Stations located on Artificial Island in Lower Alloways Creek Township, Salem County, New Jersey. PSEG Nuclear LLC (PSEG) plans to apply to the U.S. Nuclear Regulatory Commission (NRC) for renewal of the operating licenses for these plants, which expire in 2016 (Salem Unit 1), 2020 (Salem Unit 2), and 2026 (Hope). License renewal would extend the operating period of each reactor for an additional 20 years.

This letter addresses federally listed species in the vicinity of the Salem and Hope plants as well as four existing 500-kV transmission lines that emanate from the plants and extend along southern Salem, Gloucester, and Camden Counties in New Jersey and into New Castle County in Delaware. The proposed relicensing would not involve any expansion of existing facilities, structural modifications or other refurbishments, or change in existing management practices for the plants or the lines. This response has been coordinated with the Service's Chesapeake Bay Field Office regarding the portion of one transmission line that cross into Delaware. This response does not address all Service concerns for wildlife resources, nor any proposals for construction of new or expanded facilities.

#### **AUTHORITY**

This response is pursuant to Section 7 the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA) to ensure the protection of federally listed endangered and threatened species; the Bald and Golden Eagle Protection Act (54 Stat. 250; 16 U.S.C. 668-668d) (Eagle Act); and the Migratory Bird Treaty Act of 1918 (40 Stat. 755; 16 U.S.C. 703-712), as amended. These comments do not preclude separate review and comments by the Service pursuant to the National Environmental Policy Act of 1969 as amended (83 Stat. 852; 42 U.S.C. 4321 *et seq.*) (NEPA).

## FEDERALLY LISTED SPECIES

No federally listed species under Service jurisdiction are known to occur in the vicinity of the existing Salem or Hope Generating Stations.

Known occurrences and other areas of potential habitat for the federally listed (threatened) swamp pink (*Helonias bullata*), and areas of potential habitat for the federally listed (threatened) bog turtle (*Clemmys muhlenbergii*), occur along the Hope Creek/Salem to New Freedom and Salem to New Freedom South transmission lines. PSEG's current maintenance practices along these lines, including State-mandated vegetation control, may adversely affect these species.

The Service is currently coordinating with PSEG to review all of its 5,402 transmission line spans in New Jersey. When the review is complete, the Service will transmit a Geographic Information System (GIS) layer to PSEG's Environment, Health and Safety Department indicating the presence or potential presence of federally listed species along each span. Concurrent with the Service's review, PSEG is considering written adoption of Service-recommended conservation measures for each federally listed species that could potentially occur along the transmission spans. The Service recommends referencing this coordination process in PSEG's application to the NRC. We also recommend inclusion of all adopted conservation measures in the NEPA documentation for the license renewals. In addition, the Service will recommend inclusion of all adopted conservation measures in PSEG's renewed transmission line maintenance General Permit under the New Jersey Freshwater Wetlands Protection Act (N.J.S.A. 13:9B *et seq.*).

## BALD EAGLE

Numerous areas of nesting, foraging, and wintering habitat for the bald eagle (*Haliaeetus leucocephalus*) are mapped along the subject transmission lines by the New Jersey Department of Environmental Protection. This species could also occur along the line in Delaware. The bald eagle was removed from the Federal List of Endangered and Threatened Wildlife effective August 8, 2007. The bald eagle continues to be federally protected under the Eagle Act and the Migratory Bird Treaty Act. In addition, the bald eagle remains a State-listed species under the New Jersey Endangered and Nongame Species Conservation Act (N.J.S.A. 23:2A *et seq.*), which carries protections under the State land use regulation program. Disturbance of bald eagle nests is also prohibited under Delaware State law (7 Del. C. 1953, § 748; 57 Del. Laws, c. 88; 70 Del. Laws, c. 275, §§ 74-77), and new regulations have been proposed in Delaware to strengthen protections for bald eagles. For the continued protection of bald eagles, and to ensure compliance with Federal and State laws, the Service recommends managing bald eagles in accordance with the National Bald Eagle Management Guidelines and all applicable State regulations. Links to New Jersey State agencies and the Guidelines are available on this office's web site at <http://www.fws.gov/northeast/njfieldoffice/Endangered>. Information on the bald eagle in Delaware is available from the Delaware Natural Heritage and Endangered Species Program; contact information is provided in the enclosed letter from the Chesapeake Bay Field Office.

## MIGRATORY BIRDS

The Migratory Bird Treaty Act prohibits the take of migratory birds, their parts, nests, and eggs, even when incidental to an otherwise lawful activity. To minimize avian electrocution and collision risks, the Service recommends that PSEG modify the four subject transmission lines as needed for consistency with the *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006*. If necessary, upgrades to the *State of the Art* standards can be phased in over time in conjunction with routine maintenance along the lines. If PSEG has not already done so, the Service also recommends preparation of an Avian Protection Plan (APP). The *Suggested Practices* document is available from the Avian Powerline Interaction Committee (<http://www.aplic.org/>). Guidance for preparing APPs is available from the Service (<http://www.fws.gov/migratorybirds>, under Bird Hazards).

## CONCLUSION

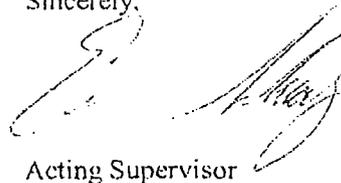
Further consultation with the Service under Section 7 of the ESA is necessary to evaluate and minimize adverse effects to federally listed species from PSEG's current transmission line maintenance practices in New Jersey. The Service appreciates PSEG's cooperation to address impacts from transmission line maintenance on a State-wide basis. We recommend that PSEG reference this effort in its application to NRC, and in NEPA documents for the relicensing. The Service recommends that PSEG comply with the above-referenced guidance documents to minimize impacts to the bald eagle and other migratory birds.

Except for the above-mentioned species, no other federally listed or proposed threatened or endangered flora or fauna are known to occur within the vicinity of the proposed project. If additional information on listed and proposed species becomes available or if project plans change, this determination may be reconsidered.

Please refer to our web site at <http://www.fws.gov/northeast/njfieldoffice/Endangered/> for current lists of federally listed and candidate species in New Jersey. The web site also provides contacts for obtaining current information regarding State-listed and other species of concern from the New Jersey Natural Heritage and Endangered and Nongame Species Programs. Contact information for the Delaware Natural Heritage and Endangered Species Program is provided in the enclosed letter from the Chesapeake Bay Field Office.

Please contact Wendy Walsh at (609) 383-3938, extension 48, if you have any questions or require further assistance regarding federally listed threatened or endangered species.

Sincerely,



Acting Supervisor

Enclosures



## United States Department of the Interior

OFFICE OF THE SECRETARY  
Office of Environmental Policy and Compliance  
408 Atlantic Avenue – Room 142  
Boston, Massachusetts 02110-3334



January 14, 2011

9043.1  
ER 10/926

Bo Pham, Chief  
Project Branch 1, Division of License Renewal  
Office of Nuclear Reactor Regulation  
Nuclear Regulatory Commission  
Washington, D.C. 20555-0001  
Attn: Leslie Perkins

**RE: COMMENTS**  
**Draft Environmental Impact Statement for License Renewal of Nuclear Plants,**  
**Regarding Hope Creek Generating Station and Salem Nuclear Generating Station,**  
**Units 1 and 2, Supplement 45 to NUREG-1437, Lower Alloway Creek Township,**  
**Salem County, New Jersey**

Dear Mr. Pham:

The U. S. Department of the Interior (Department) has reviewed the October 2010 Draft Plant-Specific Supplement 45 to the Generic Environmental Impact Statement for License Renewal for the Hope Creek Generating Station and Salem Nuclear Generating Station, Units 1 and 2 (draft SEIS). The generating stations are located on Artificial Island in Lower Alloway Creek Township, Salem County, New Jersey. Notice of availability for the draft SEIS was published in the October 29, 2010, Federal Register (Vol. 75, No. 209, page 66756). PSEG Nuclear, LLC (PSEG Nuclear) has applied to the U.S. Nuclear Regulatory Commission (NRC) for renewal of the operating licenses for these plants, which expire in 2016 (Salem Unit 1), 2020 (Salem Unit 2), and 2026 (Hope). License renewal would extend the operating period of each reactor for an additional 20 years. Four existing 500-kV transmission lines emanate from the plants and extend along southern Salem, Gloucester, and Camden Counties in New Jersey and into New Castle County in Delaware. The proposed relicensing would not involve any expansion of existing facilities, structural modifications or other refurbishments, or change in existing management practices for the plants or the lines. This response does not address any proposals for construction of new or expanded facilities.

### **AUTHORITY**

This response is pursuant to the National Environmental Policy Act of 1969 as amended (83 Stat. 852; 42 U.S.C. 4321 *et seq.*); the Fish and Wildlife Coordination Act (48 Stat. 401; 16 U.S.C.

661 *et seq.*); Section 7 of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA); the Bald and Golden Eagle Protection Act (54 Stat. 250; 16 U.S.C. 668-668d) (Eagle Act); and the Migratory Bird Treaty Act of 1918 (40 Stat. 755, as amended; 16 U.S.C. 703-712).

## **FEDERALLY LISTED SPECIES**

The Department's U.S. Fish and Wildlife Service (FWS) provided relevant information and recommendations regarding federally listed species via letters dated September 9, 2009; November 4, 2009; and June 29, 2010 (enclosed). No federally listed species under FWS jurisdiction are known to occur in the vicinity of the existing Salem or Hope Generating Stations. However, known occurrences and other areas of potential habitat for the federally listed (threatened) swamp pink (*Helonias bullata*), and areas of potential habitat for the federally listed (threatened) bog turtle (*Clemmys muhlenbergii*), occur along the Hope Creek/Salem to New Freedom and Salem to New Freedom South transmission lines.

Via letter dated October 23, 2009 (enclosed), Public Service Electric and Gas Company (PSE&G) adopted several conservation measures to avoid adverse effects to federally listed and candidate species from State-mandated vegetation management and other maintenance activities along its transmission system throughout New Jersey, including the four transmission lines emanating from the Salem and Hope Creek Generating Stations. FWS concurred with those conservation measures in its letter of November 4, 2009.

FWS previously recommended that NRC include of all PSE&G's adopted conservation measures in the SEIS, and as conditions of any renewed license. This recommendation is not reflected in the draft SEIS. During a January 4, 2011, conference call, NRC clarified that PSE&G is a wholly separate company from PSEG Nuclear, and is not subject to any provisions of PSEG Nuclear's license to operate the Salem and Hope Creek Generating Stations. On the call, FWS indicated that PSE&G's continued adherence to acceptable conservation measures along the Hope Creek/Salem to New Freedom and Salem to New Freedom South transmission lines is essential to avoiding adverse impacts to federally listed species. The Department requests that NRC clarify potential effect in the final SEIS, and acknowledge that it must reinitiate Section 7 consultation for the continued operation of the Salem and Hope Creek Generating Stations if PSE&G should ever terminate its implementation of acceptable conservation measures along the transmission lines.

## **BALD EAGLE AND MIGRATORY BIRDS**

In their September 9, 2009, letter, FWS provided recommendations regarding the bald eagle (*Haliaeetus leucocephalus*) and other migratory birds. The FWS recommendations are not reflected in the draft SEIS. The Department requests that NRC address requirements of the Eagle Act in the final SEIS, specifically the need for PSEG Nuclear to follow the National Bald Eagle Management Guidelines (Guidelines) in managing any future eagle activity in the vicinity of the Salem and Hope Creek Generating Stations. The final SEIS should also note that numerous areas of bald eagle nesting, foraging, and wintering habitat are mapped along the subject transmission lines. In correspondence of October 23, 2009, PSE&G agreed to notify FWS if the Guidelines cannot be followed in the course of transmission line maintenance. The

Department also requests that final SEIS address FWS's recommendations to minimize electrocution, collision risks to migratory birds and time of year restrictions for any tree clearing.

### **AQUATIC RESOURCES**

The Department is concerned that the continued re-licensing of the PSEG Nuclear plants will impact fish and wildlife resources associated with the continued operation of the project. During the initial project construction, and subsequent New Jersey Department of Environmental Protection Water Quality Permits (pursuant to the Clean Water Act), it was anticipated that numerous fish and wildlife resources would be impacted from the intake of up to 3 billion gallons of water per day for plant cooling needs. Estimates based on PSEG Nuclear's impingement and entrainment data indicate over 6 million pounds annually of fish and other marine life from the Delaware Bay are lost annually as a result of plant operation. The applicant asserted that the FWS's preferred alternative (installation of cooling towers) was not economically viable and instead developed an Estuarine Enhancement Program (EEP) feature for the life of the plant. The FWS requests that additional project features commensurate with project impacts be added to the existing EEP for implementation until such time that the project is finally closed.

### **CONCLUSION**

Continued operation of the Salem and Hope Creek Generating Stations is not likely to adversely affect the federally listed swamp pink and bog turtle. A key factor in this concurrence is PSE&G's continued adherence to conservation measures along the transmission lines that emanate from these plants. The Department requests that NRC clarify this situation in the final SEIS, and acknowledge that it must reinitiate Section 7 consultation for the continued operation of the Salem and Hope Creek Generating Stations if PSE&G should ever terminate its implementation of acceptable conservation measures along the transmission lines. The Department also requests NRC's attention to FWS recommendations to protect the bald eagle and other migratory birds. Additional project features should be added to the existing EEP, if the project continues to operate past the current license

Thank you for the opportunity to review and comment on this DEIS. If you need further information, please contact Ron Popowski (FWS) at (609) 241-7065. Please contact me at (617) 223-8565 if I can be of assistance.

Sincerely,



Andrew L. Raddant  
Regional Environmental Officer

Enclosures

Endnotes



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE



In Reply Refer To:  
2010-I-0417

New Jersey Field Office  
Ecological Services  
927 North Main Street, Building D  
Pleasantville, New Jersey 08232  
Tel: 609/646 9310  
Fax: 609/646 0352  
<http://www.fws.gov/northeast/njfieldoffice/>

JUN 29 2010

Bo Pham, Chief  
Project Branch 1, Division of License Renewal  
Office of Nuclear Reactor Regulation  
Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Dear Mr. Pham:

The U.S. Fish and Wildlife Service (Service) has reviewed your December 23, 2009 request for information on the presence of federally listed endangered and threatened species in the vicinity of the existing Salem and Hope Creek Generating Stations located on Artificial Island in Lower Alloways Creek Township, Salem County, New Jersey. PSEG Nuclear LLC (PSEG) has applied to the U.S. Nuclear Regulatory Commission (NRC) for renewal of the operating licenses for these plants, which expire in 2016 (Salem Unit 1), 2020 (Salem Unit 2), and 2026 (Hope). License renewal would extend the operating period of each reactor for an additional 20 years.

This letter addresses federally listed species in the vicinity of the Salem and Hope plants as well as four existing 500-kV transmission lines that emanate from the plants and extend along southern Salem, Gloucester, and Camden Counties in New Jersey and into New Castle County in Delaware. The proposed relicensing would not involve any expansion of existing facilities, structural modifications or other refurbishments, or change in existing management practices for the plants or the lines. This response has been coordinated with the Service's Chesapeake Bay Field Office regarding the portion of one transmission line that cross into Delaware. This response does not address all Service concerns for wildlife resources, nor any proposals for construction of new or expanded facilities.

#### AUTHORITY

This response is pursuant to Section 7 of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA) to ensure the protection of federally listed endangered and threatened species. These comments do not preclude separate review and comments by the Service pursuant to the National Environmental Policy Act of 1969 as amended (83 Stat. 852; 42 U.S.C. 4321 *et seq.*); the Bald and Golden Eagle Protection Act (54 Stat. 250; 16 U.S.C. 668-668d); or the December 22, 1993 Memorandum of Agreement among the U.S. Environmental Protection Agency, New Jersey Department of Environmental Protection (NJDEP), and the Service, if project implementation requires a permit from the NJDEP pursuant to the New Jersey Freshwater Wetlands Protection Act (N.J.S.A. 13:9B *et seq.*).

## FEDERALLY LISTED SPECIES

Via letter to PSEG dated September 9, 2009 (enclosed), the Service indicated that no federally listed species under Service jurisdiction are known to occur in the vicinity of the existing Salem or Hope Generating Stations.

Known occurrences and other areas of potential habitat for the federally listed (threatened) swamp pink (*Helonias bullata*), and areas of potential habitat for the federally listed (threatened) bog turtle (*Clemmys muhlenbergii*), occur along the Hope Creek/Salem to New Freedom and Salem to New Freedom South transmission lines.

Via letter dated October 23, 2009, PSEG adopted several conservation measures to avoid adverse effects to federally listed and candidate species from maintenance practices (including State-mandated vegetation control) along its transmission system throughout New Jersey, including the four transmission lines emanating from the Salem and Hope Creek Generating Stations. Based on these conservation measures, the Service concurred that PSEG's continued maintenance of its transmission lines in New Jersey is not likely to adversely affect federally listed or candidate species (see enclosed letter dated November 4, 2009).

The Service recommends inclusion of all adopted conservation measures in the Supplemental Environmental Impact Statement, and as conditions of any renewed NRC license.

## OTHER SERVICE CONCERNS

Please see our September 9, 2009 letter for Service recommendations regarding the bald eagle (*Haliaeetus leucocephalus*) and migratory birds.

## CONCLUSION

The Service recommends inclusion of PSEG's adopted conservation measures for transmission line maintenance in the Supplemental Environmental Impact Statement, and as conditions of any renewed NRC license. We appreciate NRC's attention to our recommendations to protect the bald eagle and migratory birds.

Please contact Wendy Walsh at (609) 383-3938, extension 48, if you have any questions or require further assistance regarding federally listed threatened or endangered species.

Sincerely,



Ron Popowski  
Assistant Supervisor



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

New Jersey Field Office  
Ecological Services  
927 North Main Street, Building D  
Pleasantville, New Jersey 08232  
Tel: 609/646 9310  
Fax: 609/646 0352  
<http://www.fws.gov/northeast/njfieldoffice>



In Reply Refer to:

2009-I-0707

Raymond A. Tripodi, Manager  
Corporate Licenses and Permits  
PSEG Services Corporation  
80 Park Plaza, T17  
Newark, New Jersey 07102-4194  
Attention: Dr. David Grossmueller

Dear Mr. Tripodi:

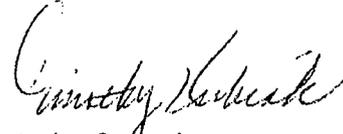
The U.S. Fish and Wildlife Service (Service) has reviewed your October 23, 2009 letter adopting conservation measures for federally listed species that Public Service Electric and Gas Company (PSE&G) will implement during vegetation maintenance activities within its existing electric transmission Right-of-Way (ROW) system, which is located in Sussex, Passaic, Bergen, Warren, Morris, Essex, Hudson, Hunterdon, Somerset, Union, Middlesex, Mercer, Burlington, Camden, Gloucester, and Salem Counties, New Jersey. PSE&G has applied to the New Jersey Department of Environmental Protection (NJDEP) for renewal of a general permit (000-02-0031.2) under the New Jersey Freshwater Wetlands Protection Act (N.J.S.A. 13:9B *et seq.*) to authorize vegetation maintenance within the PSE&G transmission system through 2014. PSE&G's adopted conservation measures were developed in coordination with the Service, pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) and the Bald and Golden Eagle Protection Act (54 Stat. 250; 16 U.S.C. 668-668d). The conservation measures refer to transmission system segments (spans) that have been identified by the Service as habitat for federally listed and candidate species. This information was transmitted to PSE&G as a GIS shapefile via electronic mail on September 30, 2009.

Based upon PSE&G's adoption of the conservation measures listed in your October 23, 2009 letter, the Service concurs that continued vegetation maintenance activities within the transmission system are not likely to adversely affect federally listed or candidate species. The conservation measures also include practices to avoid or minimize adverse impacts to bald eagles, other migratory birds, Great Swamp National Wildlife Refuge, and wetlands. The Service appreciates the cooperation of PSE&G to develop and adopt these measures. As described in your October 23, 2009 letter, PSE&G will coordinate annually with the Service to determine if any new locations or information regarding federally listed species has become available, and to consider if any of the conservation measures require modification.

NOV 4 2009

Please contact Wendy Walsh at (609) 383-3938, extension 48, if you have any questions or require further assistance regarding federally listed threatened or endangered species.

Sincerely,

A handwritten signature in cursive script, appearing to read "Cindy Kerkut".

Acting Supervisor

cc: Linda Fisher, DLUR  
Larry Torok, DLUR  
Steve Henry, Great Swamp NWR  
Coop Chavis, OLE  
Jorris Naiman, DOI Solicitor



October 23, 2009

Ms. Wendy Walsh  
U.S. Fish and Wildlife Service  
New Jersey Field Office  
927 North Main Street  
Heritage Square, Building D  
Pleasantville, New Jersey 08232

**RE: PUBLIC SERVICE ELECTRIC AND GAS COMPANY (PSE&G)  
FRESHWATER WETLANDS PERMIT NO. 000-02-0031.2  
ENDANGERED SPECIES COMPLIANCE DURING  
ELECTRIC TRANSMISSION RIGHT-OF WAY  
VEGETATION MAINTENANCE ACTIVITIES**

Dear Ms. Walsh:

Pursuant to your August 19, 2009 electronic mail correspondence, your May 28, 2008 letter, and subsequent coordination regarding vegetation maintenance along Public Service Electric and Gas Company (PSE&G) electric transmission Rights-of-Way (ROW), PSE&G is providing this letter to confirm our commitment to protecting both Federally and State listed threatened and endangered species. As discussed during our meeting of August 19, 2009, PSE&G is working to shift from vegetation maintenance which requires extensive tree cutting to one which maintains the ROWs by mowing brush and eventually grasses. As the new maintenance program continues, it is hoped that ROWs overgrown with woody vegetation will become the exception rather than the norm. PSE&G adopts the conservation measures recommended by the U.S. Fish and Wildlife Service (USFWS) for each species as follows:

**Indiana Bat**

- PSE&G will maintain a seasonal restriction on cutting trees greater than five (5) inches in diameter at breast height (dbh) from April 1 through November 15 in those spans identified by the USFWS as hibernacula foraging habitat (HI) and as hibernacula and maternity colony foraging habitat (HIMA).
- In spans identified as maternity colony foraging habitat (MA), PSE&G will maintain a seasonal restriction on cutting trees greater than five (5) inches in diameter at breast height (dbh) from April 1 through September 30.
- PSE&G does not believe it can fully implement USFWS's recommendation to "notify the Service before cutting any suitable roost tree at any time of year." The main purpose for PSE&G's application for the GP-1 was to obtain pre-approval for its vegetative maintenance activities in an attempt to avoid impact to Federal and/or State protected species, avoid numerous independent submittals to Federal and State regulators, and

avoid down time to PSE&G's work schedule while awaiting regulatory response. In consideration of the numerous seasonal tree cutting restrictions, which in certain areas can reduce the annual cutting season to 30 days, a notification / response requirement would adversely impact PSE&G's ability to complete its other regulatory obligations. As you are aware, the New Jersey Public Board of Utilities (NJBPU) regulations required PSE&G to clear its ROWs of woody vegetation (greater than three (3) feet) under the power lines and no woody vegetation greater than 15 feet in the areas adjacent to the power lines. However, within hibernation (HI) and/or maternity areas (MA), PSE&G will make every effort to trim and/or girdle (with or without herbicide) suitable roost trees instead of removing them, to the extent possible given the NJBPU vegetative maintenance requirements. Suitable roost trees are described in the USFWS document "Characteristics of Indiana Bat Summer Habitat."

- For spans marked as occurring within the Geographic Range of the bats (P), PSE&G will not cut more than five (5) trees greater than five (5) inches in diameter at breast height (dbh) per linear mile between April 1 and September 30 unless such a tree is found to exist at a height determined to pose a hazard to system reliability and/or PSE&G would violate its other regulatory obligations. Under such circumstances, PSE&G will notify USFWS of the tree location and our intention to cut or trim, and will implement additional site-specific USFWS recommendations if possible.

#### **Bog Turtle**

- PSE&G will utilize a recognized, qualified bog turtle surveyor to examine spans identified by the USFWS as potential habitat (P) or an extant occurrence (E) of the bog turtle. Areas identified by the surveyor as suitable bog turtle habitat, plus a 150-foot buffer, will be flagged prior to any vegetation maintenance activities being conducted in that span, and a recognized, qualified bog turtle surveyor will be on-site during maintenance activities in flagged areas.
- PSE&G will conduct all maintenance activities by hand within flagged areas; will avoid stepping on hummocks or tussocks when working in flagged areas; will not allow the use of motorized equipment in flagged areas; and will not allow the storage of materials or equipment in flagged areas.
- PSE&G will remove woody vegetation within the flagged areas by hand between October 15 and March 31; will not pull woody vegetation out by the roots in the flagged areas to prevent disturbing potential hibernacula; and will use only glyphosate-based herbicides applied manually and directly to stumps in the flagged areas.
- All flagging will be removed upon completion of work in the area.
- PSE&G will not apply herbicide in known nesting areas between June 1 and August 30 to protect the habitat. Known nesting areas include all flagged areas associated with an extant occurrence (E) of the bog turtle as identified by the USFWS and/or observation of an actual bog turtle in the field:
- In accordance with the timing restrictions set forth in the New Jersey Department of Environmental Protection's (NJDEP) existing "Utility Right-of-Way No-Harm Best Management Practices (2009)" PSE&G will avoid disturbance in areas identified by the USFWS and confirmed by a recognized, qualified surveyor as known or suitable bog

turtle habitat during nesting (May 1 – June 30). PSE&G will follow all other applicable bog turtle provisions of the most current version of the "Utility Right-of-Way No-Harm Best Management Practices," including any provisions that are more restrictive than those listed above.

- Upon completion of recognized, qualified bog turtle surveyor's results report, PSE&G will forward a copy to USFWS for its files.

#### **Swamp Pink**

- On ROW spans identified by USFWS as potential habitat (P) or an extant occurrence (E) of swamp pink, PSE&G will utilize a qualified botanist to survey any suitable forested wetland habitat on and adjacent to the ROW for the presence or absence of swamp pink. Survey reports will be provided to USFWS as surveys are completed.
- PSE&G will utilize a qualified botanist to flag a 200 foot radius around any identified swamp pink population and no maintenance activities of any kind will be initiated within the flagged areas without USFWS approval. All flagging will be removed upon completion of work in the area.
- Herbicide application within 500 feet of a known population will be to woody stumps only, and will be conducted manually.

#### **Dwarf Wedgemussel**

- PSE&G will conduct all vegetation maintenance activities by hand within 300 feet of streams identified by USFWS as potential habitat (P) for the dwarf wedgemussel. If herbicide is necessary in these areas, application will be to woody stumps only and will be conducted manually.

#### **Small Whorled Pogonia**

- PSE&G will conduct a preliminary habitat assessment along spans identified by USFWS as potential habitat (P) for small whorled pogonia to determine if any areas of suitable upland woods are designated for removal. If so, PSE&G will arrange for a qualified botanist to survey such woods for the presence or absence of this species between late July and mid-September (before frost). The habitat assessment and results of any survey will be provided to USFWS upon completion of the survey. Further consultation will be conducted if any small whorled pogonia plants are found.

#### **Other Listed Plants**

- In spans identified by USFWS as potential habitat (P) for Knieskern's beaked-rush, American chaffseed, and/or sensitive joint vetch, PSE&G will not use herbicide and will raise mower blades to at least 6 inches above the ground. PSE&G does not perform vegetative maintenance activities in the tidal marshes required by sensitive joint vetch.

#### **Bog Asphodel**

- PSE&G will arrange for a qualified botanist to survey suitable habitats in and adjacent to spans identified by USFWS as potential habitat (P) for bog asphodel for the presence or

absence of this Federal candidate species. Survey results will be provided to USFWS. Further consultation will be conducted if any bog asphodel plants are found at the completion of the survey.

### **Bald Eagle**

- It is anticipated that PSE&G will comply with the National Bald Eagle Management Guidelines; however, PSE&G wishes to reserve the right to discuss this matter until such time as we complete our review of the Guidelines. PSE&G will notify the USFWS if the Guidelines cannot be implemented, to determine if a permit is required under the Bald and Golden Eagle Protection Act.
- Unless NJDEP indicates otherwise, PSE&G will, in accordance with the timing restrictions set forth in NJDEP's existing "Utility Right-of-Way No-Harm Best Management Practices (2009)," PSE&G avoid disturbance within 1000 feet of areas identified by the NJDEP as eagle nesting and foraging buffers during nesting (December 15 August 31).

It should be noted that the NJDEP is currently conducting an assessment of PSE&G's entire electric transmission network in order to identify spans containing State listed plants and animals, including bald eagles.

PSE&G will contact USFWS annually at least 60 days prior to the start of vegetative maintenance activities to request any new information regarding the locations of potential habitat or extant occurrences of federally listed species within its electric transmission system. During this annual coordination process, the continued implementation of the above-listed conservation measures, with any appropriate modifications, will be confirmed. It is PSE&G's intention to perform the majority of our transmission vegetation maintenance activities between October 1 through March 31 so as to accommodate the timing restrictions for most Federal and State threatened and endangered species. Conducting maintenance during these winter months will also minimize impacts to nesting birds, which are protected under the Migratory Bird Treaty Act. As an additional best management practice to protect natural resources, PSE&G will raise mower blades to at least 6 inches above the ground in any areas authorized by NJDEP to use motorized equipment in wetlands.

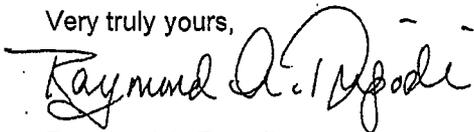
In addition, PSE&G is exploring the potential to mark electric transmission structures) indicating spans with environmental restrictions which include, but are not limited to: areas which do not receive mechanized maintenance; areas with threatened and endangered species timing restrictions, wetlands, streams and riparian zones; and areas which require maintenance activities be conducted by hand. PSE&G is exploring several methods of marking electric transmission structures and will keep the USFWS updated on the process.

As a final item, PSE&G has been working with the USFWS personnel at the Great Swamp National Wildlife Refuge (GSNWR) to restore bog turtle habitat. Refuge staff have expressed an interest in participating in common reed eradication projects along the ROW within the Refuge. To date, Refuge staff members have not expressed any preferred vegetation management practices however PSE&G will continue to coordinate directly with Refuge staff to develop vegetation management tools which complement the management goals of the Refuge. PSE&G will include a discussion of future vegetative maintenance practices within GSNWR in the final restoration plan that will be developed in cooperation with Refuge staff.

If you have any questions or require additional information, please contact Dr. David Grossmueller of our offices at (973) 430-5228.

---

Very truly yours,

A handwritten signature in black ink, appearing to read "Raymond A. Tripodi". The signature is written in a cursive style with a large, prominent initial "R".

Raymond A. Tripodi  
Manager - Corporate Licenses and Permits

cc: Larry Torok, NJDEP  
Linder Fisher, NJDEP



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

New Jersey Field Office  
Ecological Services  
927 North Main Street, Building D  
Pleasantville, New Jersey 08232

Tel: 609/646 9310

Fax: 609/646 0352

<http://www.fws.gov/northeast/njfieldoffice>



In Reply Refer to:

2009-1-0417

03/09 9:20AM

Edward J. Keating, Sr. Environmental Advisor  
PSEG Nuclear LLC  
P.O. Box 236  
Hancocks Bridge, New Jersey 08038-0236

Dear Mr. Keating:

The U.S. Fish and Wildlife Service (Service) has reviewed your March 4, 2009 request for information on the presence of federally listed endangered and threatened species in the vicinity of the existing Salem and Hope Creek Generating Stations located on Artificial Island in Lower Alloways Creek Township, Salem County, New Jersey. PSEG Nuclear LLC (PSEG) plans to apply to the U.S. Nuclear Regulatory Commission (NRC) for renewal of the operating licenses for these plants, which expire in 2016 (Salem Unit 1), 2020 (Salem Unit 2), and 2026 (Hope). License renewal would extend the operating period of each reactor for an additional 20 years.

This letter addresses federally listed species in the vicinity of the Salem and Hope plants as well as four existing 500-kV transmission lines that emanate from the plants and extend along southern Salem, Gloucester, and Camden Counties in New Jersey and into New Castle County in Delaware. The proposed relicensing would not involve any expansion of existing facilities, structural modifications or other refurbishments, or change in existing management practices for the plants or the lines. This response has been coordinated with the Service's Chesapeake Bay Field Office regarding the portion of one transmission line that cross into Delaware. This response does not address all Service concerns for wildlife resources, nor any proposals for construction of new or expanded facilities.

### **AUTHORITY**

This response is pursuant to Section 7 the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) (ESA) to ensure the protection of federally listed endangered and threatened species; the Bald and Golden Eagle Protection Act (54 Stat. 250; 16 U.S.C. 668-668d) (Eagle Act); and the Migratory Bird Treaty Act of 1918 (40 Stat. 755; 16 U.S.C. 703-712), as amended. These comments do not preclude separate review and comments by the Service pursuant to the National Environmental Policy Act of 1969 as amended (83 Stat. 852; 42 U.S.C. 4321 *et seq.*) (NEPA).

## FEDERALLY LISTED SPECIES

No federally listed species under Service jurisdiction are known to occur in the vicinity of the existing Salem or Hope Generating Stations.

Known occurrences and other areas of potential habitat for the federally listed (threatened) swamp pink (*Helonias bullata*), and areas of potential habitat for the federally listed (threatened) bog turtle (*Clemmys mühlenbergii*), occur along the Hope Creek/Salem to New Freedom and Salem to New Freedom South transmission lines. PSEG's current maintenance practices along these lines, including State-mandated vegetation control, may adversely affect these species.

The Service is currently coordinating with PSEG to review all of its 5,402 transmission line spans in New Jersey. When the review is complete, the Service will transmit a Geographic Information System (GIS) layer to PSEG's Environment, Health and Safety Department indicating the presence or potential presence of federally listed species along each span. Concurrent with the Service's review, PSEG is considering written adoption of Service-recommended conservation measures for each federally listed species that could potentially occur along the transmission spans. The Service recommends referencing this coordination process in PSEG's application to the NRC. We also recommend inclusion of all adopted conservation measures in the NEPA documentation for the license renewals. In addition, the Service will recommend inclusion of all adopted conservation measures in PSEG's renewed transmission line maintenance General Permit under the New Jersey Freshwater Wetlands Protection Act (N.J.S.A. 13:9B *et seq.*).

## BALD EAGLE

Numerous areas of nesting, foraging, and wintering habitat for the bald eagle (*Haliaeetus leucocephalus*) are mapped along the subject transmission lines by the New Jersey Department of Environmental Protection. This species could also occur along the line in Delaware. The bald eagle was removed from the Federal List of Endangered and Threatened Wildlife effective August 8, 2007. The bald eagle continues to be federally protected under the Eagle Act and the Migratory Bird Treaty Act. In addition, the bald eagle remains a State-listed species under the New Jersey Endangered and Nongame Species Conservation Act (N.J.S.A. 23:2A *et seq.*), which carries protections under the State land use regulation program. Disturbance of bald eagle nests is also prohibited under Delaware State law (7 Del. C. 1953, § 748; 57 Del. Laws, c. 88; 70 Del. Laws, c. 275, §§ 74-77), and new regulations have been proposed in Delaware to strengthen protections for bald eagles. For the continued protection of bald eagles, and to ensure compliance with Federal and State laws, the Service recommends managing bald eagles in accordance with the National Bald Eagle Management Guidelines and all applicable State regulations. Links to New Jersey State agencies and the Guidelines are available on this office's web site at <http://www.fws.gov/northeast/njfieldoffice/Endangered>. Information on the bald eagle in Delaware is available from the Delaware Natural Heritage and Endangered Species Program; contact information is provided in the enclosed letter from the Chesapeake Bay Field Office.

## MIGRATORY BIRDS

The Migratory Bird Treaty Act prohibits the take of migratory birds, their parts, nests, and eggs, even when incidental to an otherwise lawful activity. To minimize avian electrocution and collision risks, the Service recommends that PSEG modify the four subject transmission lines as needed for consistency with the *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006*. If necessary, upgrades to the *State of the Art* standards can be phased in over time in conjunction with routine maintenance along the lines. If PSEG has not already done so, the Service also recommends preparation of an Avian Protection Plan (APP). The *Suggested Practices* document is available from the Avian Powerline Interaction Committee (<http://www.aplic.org/>). Guidance for preparing APPs is available from the Service (<http://www.fws.gov/migratorybirds>, under Bird Hazards).

## CONCLUSION

Further consultation with the Service under Section 7 of the ESA is necessary to evaluate and minimize adverse effects to federally listed species from PSEG's current transmission line maintenance practices in New Jersey. The Service appreciates PSEG's cooperation to address impacts from transmission line maintenance on a State-wide basis. We recommend that PSEG reference this effort in its application to NRC, and in NEPA documents for the relicensing. The Service recommends that PSEG comply with the above-referenced guidance documents to minimize impacts to the bald eagle and other migratory birds.

Except for the above-mentioned species, no other federally listed or proposed threatened or endangered flora or fauna are known to occur within the vicinity of the proposed project. If additional information on listed and proposed species becomes available or if project plans change, this determination may be reconsidered.

Please refer to our web site at <http://www.fws.gov/northeast/njfieldoffice/Endangered/> for current lists of federally listed and candidate species in New Jersey. The web site also provides contacts for obtaining current information regarding State-listed and other species of concern from the New Jersey Natural Heritage and Endangered and Nongame Species Programs. Contact information for the Delaware Natural Heritage and Endangered Species Program is provided in the enclosed letter from the Chesapeake Bay Field Office.

Please contact Wendy Walsh at (609) 383-3938, extension 48, if you have any questions or require further assistance regarding federally listed threatened or endangered species.

Sincerely,



Acting Supervisor

Enclosures