

UNITED STATES OF AMERICA
 NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	Docket No. 52-043-ESP
PSEG POWER, LLC AND PSEG)	
NUCLEAR, LLC)	ASLBP No. 15-943-01-ESP-BC01
)	
(Early Site Permit Application))	February 25, 2016

NRC STAFF TESTIMONY RELATED TO FEBRUARY 8, 2016 ORDER
TOPIC 2: ADDITIONAL DISCUSSION OF BUILDING AND OPERATING IMPACTS TO
EASTERN TIGER SALAMANDERS

Q1: Please state your name, occupation, employer, and professional qualifications.

A1: (MW) My name is Michael Willingham. I am employed as a Project Manager in the Hydrology and Meteorology Branch 2, in the Division of Site Safety and Environmental Reviews, in the Office of New Reactors (NRO), U.S. Nuclear Regulatory Commission (NRC). I am the technical reviewer for terrestrial ecology and land use for the environmental review associated with the application submitted May 25, 2010, by PSEG Power, LLC and PSEG Nuclear, LLC (together, PSEG or Applicant) for an Early Site Permit (ESP) at the PSEG Site in Salem County, New Jersey. A statement of my professional qualifications is included in Exhibit (Ex.) NRC002.

(NG) My name is Neil Giffen. I am employed as a Natural Resources Manager of the Facilities and Operations Directorate at the Oak Ridge National Laboratory (ORNL), in Oak Ridge, Tennessee. I am employed by UT-Battelle, LLC (UT-Battelle), a not-for-profit, limited liability partnership between the University of Tennessee and Battelle Memorial Institute, which was established for the sole purpose of managing and operating the ORNL facilities for the U.S. Department of Energy.

As part of my official responsibilities, I assisted the NRC Staff in its environmental review associated with the application submitted May 25, 2010, by PSEG for an ESP at the PSEG Site. My assistance to the NRC Staff was specifically in the areas of terrestrial and wetlands ecology. A statement of my professional qualifications is included in Ex. NRC002.

Q2: Please describe your responsibilities with regard to the Staff’s review of the PSEG Site Early Site Permit (ESP) application.

A2: (MW) As the reviewer for terrestrial ecology and land use assigned to the PSEG ESP environmental review, I was responsible for preparing the terrestrial and wetlands ecology portions of Sections 2.4, 4.3, 5.3, 7.3, and 9.3 of the Final Environmental Impact Statement (FEIS) (Ex. NRC004A and NRC004B).

(NG) In my assignment to the PSEG ESP environmental review, I was responsible for assisting the NRC Staff in preparing the terrestrial and wetlands ecology portions of Sections 2.4, 4.3, 5.3, 7.3, and 9.3 of the FEIS (Ex. NRC004A and NRC004B).

Q3: What is the purpose of your testimony?

A3: (MW, NG) The purpose of our testimony is to explain the staff's review of information and conclusions in the FEIS for the PSEG Site ESP Application regarding the presence of the eastern tiger salamander on Artificial Island and its vicinity.

Q4: Please describe the sources from which the staff gathered information to support its analysis in the FEIS regarding the past and present existence of the eastern tiger salamander on Artificial Island.

A4: (MW, NG) In preparation of the FEIS for the PSEG Site ESP application, the staff reviewed the following documents pertaining to the eastern tiger salamander, which were referenced in the FEIS (Ex. NRC004A and NRC004B):

- CWFNJ (Conserve Wildlife Foundation of New Jersey). 2012. "New Jersey Endangered and Threatened Species Field Guide: Eastern Tiger Salamander (*Ambystoma tigrinum tigrinum*)." Trenton, New Jersey. Available at <http://www.conservewildlifenj.org/species/fieldguide/view/Ambystoma%20tigrinum%20tigrinum/>; and
- PSEG (PSEG Power, LLC). 2015. PSEG Site Early Site Permit Application; Part 3, "Environmental Report." Revision 4, Newark, New Jersey. ADAMS Accession No. ML15169A960 (citing Ichthyological Associates, Inc. 1980. The Terrestrial Ecology of Artificial Island and Vicinity 1972-1978: A Summary. (ADAMS Accession No. ML13309A649)).

Q5: Please describe information on which the staff relied to assess the past and present existence of the eastern tiger salamander on Artificial Island.

A5: (MW, NG) On page 22 of the Ichthyological Associates, Inc. (1980) report of the terrestrial ecology of Artificial Island, the study states, "The eastern tiger salamander, *Ambystoma t. tigrinum*, was found in southern New Castle County Delaware just outside the study area and may occur within it." Additionally, Appendix Table 2 on page 77 of the same study reports about the eastern tiger salamander, "We recorded it rarely just out of the study area, near the southwestern corner of New Castle County, Delaware, and it may occur in the Delaware portion of the study area. In new Jersey, it has been recorded for Salem County by Grant (1966)."

In Table 2.4-5 in Section 2.4, pg. 2.4-89, of PSEG ESP Application, Part 3, Environmental Report (2015), the applicant provided a list of reptiles and amphibians observed on-site and in the vicinity of the PSEG Site (Ex. PSEG004S). The table reflects that the eastern tiger salamander was not observed during the 2009-2010 survey (Ex. PSEG004S). However, it noted that the eastern tiger salamander had been observed in a prior survey and referenced the Ichthyological Associates Report from 1980 (Ex. PSEG004S).

CWFNJ (2012) reported that the eastern tiger salamander requires both wetland and upland habitats for its life-cycle. These habitats can consist of old fields, deciduous or mixed woodlands, and ponds. Additionally, CWFNJ (2012) reported that the eastern tiger salamander's range is limited to the far eastern portions of Salem County and Cumberland and Atlantic Counties New Jersey. Artificial Island does not contain the habitat resources needed to support the eastern tiger salamander (Ex. NRC004A and NRC004B).

Q6: Should FEIS subsection 2.4.1.3, which asserts that the eastern tiger salamander was recorded "during an ecological survey conducted on Artificial Island from 1972 through

1978,” be revised to assert that the cited survey examined a study area within a 16 kilometer radius of southern Artificial Island and concluded merely that the eastern tiger salamander was found in southern New Castle County, Delaware “just outside the study area and may occur within it”?

A6: (MW, NG) No, FEIS subsection 2.4.1.3 (Ex. NRC004A), which states, that “tiger salamanders were recorded during an ecological survey conducted on Artificial Island from 1972 through 1978” should not be revised to assert that the cited survey examined a study area within a 16 kilometer radius of southern Artificial Island and concluded merely that the eastern tiger salamander was found in southern New Castle County, Delaware “just outside the study area and may occur within it.” The eastern tiger salamander was not recorded on Artificial Island during the survey conducted from 1972 to 1978. However, the Ichthyological Associates (1980) report did report that the eastern tiger salamander was recorded in Salem County, New Jersey by Grant (1966).

The statement in the FEIS was intended to reflect that the survey on which the staff relied had encompassed Artificial Island, and the staff agrees that the eastern tiger salamander was not recorded on Artificial Island during that survey, which was conducted from 1972 to 1978. The Ichthyological Associates (1980) report did indicate that the eastern tiger salamander was recorded in Salem County, New Jersey by Grant (1966), though this report likewise did not identify any observation of the species on Artificial Island. Ultimately, for the reasons summarized above, in particular that none of the surveys identified by the staff recorded the eastern tiger salamander on Artificial Island and that Artificial Island does not contain the habitat resources needed to support the eastern tiger salamander, the clarification noted by the Board would continue to support the staff’s conclusions that “building a new nuclear power plant on the PSEG Site would not be expected to impact this species” (FEIS Chapter 4, pg. 4-34) and that the operations phase of the PSEG project would not be expected to impact this species” (FEIS Chapter 5, pg. 5-24) (Ex. NRC004A). While the staff therefore does not consider it necessary to more formally revise the statement in the FEIS, this explanation in the mandatory hearing record provides additional clarity regarding that statement and the information underlying the staff conclusions about the eastern tiger salamander.

Q7: Does this conclude your testimony?

A7: (MW, NG) Yes.

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AFFIDAVIT OF MICHAEL WILLINGHAM

I, Michael Willingham, do hereby declare under penalty of perjury that my statements in the foregoing testimony and my statement of professional qualifications (Ex. NRC002) are true and correct to the best of my knowledge and belief. I attest to the accuracy of my testimony and endorse its inclusion into the record of this proceeding.

Executed in Accord with 10 CFR § 2.304(d)

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Executed at Rockville, Maryland
This 25th day of February, 2016

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AFFIDAVIT OF NEIL GIFFEN

I, Neil Giffen, do hereby declare under penalty of perjury that my statements in the foregoing testimony and my statement of professional qualifications (Ex. NRC002) are true and correct to the best of my knowledge and belief. I attest to the accuracy of my testimony and endorse its inclusion into the record of this proceeding.

Executed in Accord with 10 CFR § 2.304(d)

Neil Giffen
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Executed at Oak Ridge, Tennessee
This 25th day of February, 2016