

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 3: ADDITIONAL DISCUSSION RELATED TO WATER SUPPLY FROM THE
MERRILL CREEK RESERVOIR

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

A1: (PM) My name is Philip Meyer. I am a Senior Research Engineer in the Hydrology Group, Energy and Environment Directorate, at the Pacific Northwest National Laboratory (PNNL). A statement of my professional qualifications is attached (Exhibit (Ex.) NRC002).

(MH) My name is Mohammad Haque. I am a Senior Hydrologist in the Environmental Technical Support Branch, Division of Safety and Environmental Analysis, Office of New Reactors (NRO), Nuclear Regulatory Commission (NRC). A statement of my professional qualifications is attached (Ex. NRC002).

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

A2: (PM, MH) As technical reviewers for the water-related aspects of the NRC Staff's environmental review of the PSEG Site Early Site Permit (ESP) application, we were responsible for the hydrology, water use, and water quality technical content of the Final Environmental Impact Statement (FEIS), and for preparation of final EIS Sections 2.3, 4.2, 5.2, 7.2, and other related content in the FEIS (Ex. NRC004A and NRC004B).

Q3: What is the purpose of your testimony?

A3: (PM, MH) The purpose of our testimony is to explain how the NRC Staff would evaluate the adequacy of the Merrill Creek Reservoir for low flow augmentation as part of the environmental review of a construction permit (CP) or combined license (COL) application that references an ESP for the PSEG Site.

Q4: Will the NRC Staff examine PSEG's ability to obtain adequate water supplies from the Merrill Creek Reservoir during the review of a CP or COL application at the PSEG ESP site?

A4: (PM, MH) Merrill Creek Reservoir (MCR) is owned and operated by the Merrill Creek Owners Group (MCOG) to augment low flows in the Delaware River in compensation for consumptive use of Delaware River Basin water, as required by the Delaware River Basin Commission (DRBC). Releases from the MCR are made during DRBC-declared droughts in lieu of curtailing operations of the designated electric generating units, as stipulated in DRBC Docket No. D-1977-110 CP-18 (Ex.

PSEG014). In evaluating the potential environmental impacts that would be associated with release of the MCR water for low flow augmentation to support operation of a new plant at the PSEG Site, the NRC Staff considered the following information (Ex. NRC004A and NRC004B).

- The equivalent freshwater consumptive water use of a new plant at the PSEG Site, as documented in the PSEG ESP Environmental Report (ER) (Ex. PSEG004B).
- Available storage in the MCR and the allocation owned by PSEG, as documented in the ER (Ex. PSEG004B).
- DRBC requirements for the MCR, the Plan of Operation for the MCR, and the designated electric generating units, as described in DRBC Docket No. D-1977-110 CP-18 (Ex. PSEG014).
- The record of Delaware River discharge at the U.S. Geological Survey gage at Trenton.
- The record of past consumptive use releases and pumping at the MCR, provided by PSEG (Ex. PSEG016).

As part of the preparation of a Supplemental EIS for a CP or COL application referencing the PSEG ESP, the NRC Staff would determine whether there is new and significant information related to the plant's water use. This approach ensures that the Agency's decision regarding construction and operation of a facility will continue to be informed by the NEPA-required "hard look" at the environmental impacts of the proposed action. The NRC Staff will perform its review in the supplemental EIS for the CP or COL, in accordance with the NRC's regulations at 10 CFR 51.20(b)(1) and (2), 51.75(c)(1), and 51.92(b) and (e).

This review may include consideration of any updates or amendments to the information evaluated during preparation of the ESP FEIS and related to the MCR, as listed above. For example, the NRC Staff would look at changes to the list of designated units in the Plan of Operation for the MCR and changes in the allocation of MCR storage. The NRC Staff would also consider, as appropriate, other related new information such as changes in DRBC requirements, new development that increases consumptive water use in the Delaware River basin, and changes in the climate of the region that could impact the occurrence and availability of water resources. New information considered by the NRC Staff would be evaluated for its potential to have a significant effect on the impact determinations of the ESP final EIS. In sum, as part of its NEPA review, if at the CP or COL stage the NRC Staff identifies new and significant information related to the use of the MCR to support operation of a new plant at the PSEG Site, the NRC Staff would accordingly re-examine the potential environmental impacts associated with release of the MCR water for low flow augmentation, which would inform its ultimate licensing decision on the CP or COL.

Q5: Does this conclude your testimony?

A5: (PM, MH) Yes.

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AFFIDAVIT OF MOHAMMAD HAQUE

I, Mohammad Haque, 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)

Mohammad Haque
Senior Hydrologist
Division of Site Safety and Environmental Analysis
Office of New Reactors
U.S. Nuclear Regulatory Commission
Mail Stop T7-E18
Washington, DC 20555-0001
(301) 415-4041
Mohammad.Haque@nrc.gov

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

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AFFIDAVIT OF PHILIP MEYER

I, Philip Meyer, 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)

Philip Meyer
Sr. Research Engineer
Hydrology Group
Pacific Northwest National Laboratory
620 SW 5th Ave, Ste 810
Portland, OR 97204 USA
Tel: 503-417-7552
Fax: 503-417-2175
philip.meyer@pnnl.gov

Executed at Portland, Oregon
This 25th day of February, 2016