

June 17, 2014

Mr. James Mallon
Early Site Permit Manager
PSEG Power, LLC
244 Chestnut Street
Salem, NJ 08079

SUBJECT: PSEG SITE EARLY SITE PERMIT APPLICATION — DENIAL OF EXEMPTION
REQUEST REGARDING DEFERRAL OF PROBABLE MAXIMUM SURGE
FLOODING ANALYSIS

Dear Mr. Mallon:

The purpose of this letter is to provide the U.S. Nuclear Regulatory Commission (NRC) staff's evaluation of the PSEG exemption request submitted on April 30, 2014. For reasons outlined in the enclosure, the NRC staff has concluded that PSEG's reasons provided in support of the exemption do not provide a sufficient basis for granting the requested exemption. Therefore, your exemption request is denied.

On August 4, 2010, the NRC docketed the PSEG Site Early Site Permit (ESP) application (Agencywide Documents Access and Management System (ADAMS) Accession No. ML102010714), submitted by PSEG Power, LLC, and PSEG Nuclear, LLC (PSEG). On March 5, 2014, the NRC staff issued a letter to PSEG (ADAMS Accession No. ML14049A130) stating that during its review of the response to the Request for Additional Information (RAI) No. 67 related to hydrology storm surge analysis, the NRC staff concluded that it needed further information and documentation in several areas to complete its safety evaluation. Based on the significance and complexity of the issues, the NRC staff also informed PSEG that completion of this review would require significant NRC staff time and resources well in excess of what was originally envisioned for this review prior to submission of the PSEG response to RAI No. 67; and that the NRC staff was unable to issue a revised review schedule.

In an April 30, 2014, letter, PSEG submitted a request for exemption from completing an acceptable maximum probable storm surge flooding hazard analysis that is necessary to demonstrate compliance with Title 10 of the *Code of Federal Regulations* (10 CFR) 52.17(a)(1)(vi) (ADAMS Accession No. ML14134A205). The proposed exemption would authorize deferral of the final analysis for the maximum probable storm surge flooding hazard at the proposed PSEG Site until such time that PSEG submits a Combined License (COL) application.

The regulations in 10 CFR 50.12, "Specific exemptions," state, in part, that the Commission may grant exemptions from the requirements of the regulations, if the exemptions are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security. 10 CFR 50.12 also states that the Commission will not consider granting an exemption unless special circumstances are present. PSEG asserts it has demonstrated special circumstances on three grounds, citing the criteria of

J. Mallon

-2-

10 CFR 50.12(a)(2)(ii), (iii), and (v). Further, on May 12, 2014, PSEG requested that the NRC suspend the review of the hydrology storm surge flood analysis for the PSEG Site ESP application (ADAMS Accession No. ML14135A029).

Within 30 days from the date of this letter, PSEG is requested to either respond to the NRC staff's outstanding information needs, provide a plan for moving forward with the review of the analysis of probable maximum surge flooding, or confirm the continuation of its request to suspend the NRC staff review. If you have any questions, please contact Mr. Prosanta Chowdhury of my staff at 301-415-1647.

Sincerely,

/RA/

Glenn M. Tracy, Director
Office of New Reactors

Docket No.: 52-043

Enclosure:
Staff Evaluation of PSEG
Request for Exemption

cc: See next page

J. Mallon

-2-

10 CFR 50.12(a)(2)(ii), (iii), and (v). Further, on May 12, 2014, PSEG requested that the NRC suspend the review of the hydrology storm surge flood analysis for the PSEG Site ESP application (ADAMS Accession No. ML14135A029).

Within 30 days from the date of this letter, PSEG is requested to either respond to the NRC staff's outstanding information needs, provide a plan for moving forward with the review of the analysis of probable maximum surge flooding, or confirm the continuation of its request to suspend the NRC staff review. If you have any questions, please contact Mr. Prosanta Chowdhury of my staff at 301-415-1647.

Sincerely,

/RA/

Glenn M. Tracy, Director
Office of New Reactors

Docket No.: 52-043

Enclosure:
Staff Evaluation of PSEG
Request for Exemption

cc: See next page

DISTRIBUTION:

PUBLIC	BKaras, NRO	RidsNroDnrlResource
LB1 R/F	KRoach, OGC	RidsRgn1MailCenterResource
PChowdhury, NRO	AFetter, NRO	RidsNroDnrlLb1Resource
JMcLellan, NRO	SBurnell, OPA	RidsOgcMailCenterResource
JSegala, NRO		RidsAcrsAcnwmailCenter

ADAMS Accession No.: ML14127A308 *via e-mail NRO-002

OFFICE	DNRL/LB1:PM	DNRL/LB1:LA	DSEA/RHMB:BC
NAME	PChowdhury	JMcLellan	RKaras
DATE	06/12/2014	06/11/2014	06/12/2014
OFFICE	DNRL/LB1:BC	OGC: NLO	DNRL:DD
NAME	JSegala MDelligatti <i>for</i>	KRoach *JMartin <i>for</i>	MDelligatti
DATE	06/17/2014	06/17/2014	06/17/2014
OFFICE	DSEA:D	DNRL:DD	NRO:D
NAME	SFlanders	FAkstulewicz	GTracy
DATE	06/17/2014	06/17/2014	06/17/2014

OFFICIAL RECORD COPY

ESP - PSEG Mailing List

(Revised 06/03/2014)

cc:

Mr. James Mallon
Mr. Richard L. Baker
Bechtel Power Corporation
5275 Westview Drive
Frederick, MD 21703-8306

Early Site Permit Manager
PSEG Power, LLC
224 Chestnut St.
Salem, NJ 08079

Mr. Lionel Batty
Nuclear Business Team
Graftech
12300 Snow Road
Parma, OH 44130

Manager
GT-MHR Safety & Licensing
General Atomics Company
PO Box 85608
San Diego, CA 92186-5608

Mr. R. C. Braun
Senior Vice President - Nuclear Operations
PSEG Nuclear, LLC
One Alloway Creek Neck Rd.
Hancock's Bridge, NJ 08038

Mr. Edward L. Quinn
Longenecker and Associates
Utility Operations Division
23292 Pompeii Drive
Dana Point, CA 92629

Norm Cohen
Coord, Unplug Salem Campaign
321 Barr Ave.
Linwood, NJ 08221

Mr. David Repka
Winston & Strawn LLP
1700 K. Street, NW
Washington, DC 20006-3817

Mr. Eugene S. Grecheck
Vice President
Nuclear Support Services
Dominion Energy, Inc.
5000 Dominion Blvd.
Glen Allen, VA 23060

David Robillard
Principal Nuclear Engineer
PSEG Power, LLC
224 Chestnut Street
Salem, NJ 08079

Mr. Roy Hickok
NRC Technical Training Center
5700 Brainerd Road
Chattanooga, TN 37411-4017

Mr. Robert E. Sweeney
IBEX ESI
4641 Montgomery Avenue
Suite 350
Bethesda, MD 20814

David Lochbaum
Union of Concerned Scientists
1825 K St. NW, Suite 800
Washington, DC 20006-1232

Mr. Gary Wright, Director
Division of Nuclear Facility Safety
Illinois Emergency Management Agency
1035 Outer Park Drive
Springfield, IL 62704

ESP - PSEG Mailing List

Email

Alicia.Williamson@nrc.gov (Alicia Williamson)
Allen.Fetter@nrc.gov (Allen Fetter)
APAGLIA@Scana.com (Al Paglia)
awc@nei.org (Anne W. Cottingham)
Christine.Neely@pseg.com (Christine Neely)
CumminWE@Westinghouse.com (Edward W. Cummins)
cwaltman@roe.com (C. Waltman)
david.hinds@ge.com (David Hinds)
david.lewis@pillsburylaw.com (David Lewis)
david.robillard@pseg.com (David Robillard)
donald.woodlan@luminant.com (Donald Woodlan)
draleigh@curtisswright.com (Denna Raleigh)
ecullington@earthlink.net (E. Cullington)
ed.burns@earthlink.net (Ed Burns)
erg-xl@cox.net (Eddie R. Grant)
Frieda.Fisher-Tyler@state.de.us
gcesare@enercon.com (Guy Cesare)
George_Stramback@Charter.net (George Stramback)
GovePA@BV.com (Patrick Gove)
greg.gibson@unistarnuclear.com (Greg Gibson)
James.Mallon@pseg.com (James Mallon)
james1.beard@ge.com (James Beard)
jerald.head@ge.com (Jerald G. Head)
john.elnitsky@pgnmail.com (John Elnitsky)
Joseph_Hegner@dom.com (Joseph Hegner)
keepermaya@delawareriverkeeper.org (Maya K. van Rossum)
KSutton@morganlewis.com (Kathryn M. Sutton)
kwaugh@impact-net.org (Kenneth O. Waugh)
lchandler@morganlewis.com (Lawrence J. Chandler)
maria.webb@pillsburylaw.com (Maria Webb)
marilyn.kray@exeloncorp.com
mark.a.giles@dom.com (Mark Giles)
media@nei.org (Scott Peterson)
MSF@nei.org (Marvin Fertel)
murawski@newsobserver.com (John Murawski)
nirsnet@nirs.org (Michael Mariotte)
Nuclaw@mindspring.com (Robert Temple)
patriciaL.campbell@ge.com (Patricia L. Campbell)
patrick.mulligan@dep.state.nj.us (Patrick Mulligan)
paul.baldauf@dep.state.nj.us (Paul Baldauf)
Paul@beyondnuclear.org (Paul Gunter)
pbessette@morganlewis.com (Paul Bessette)
RJB@NEI.org (Russell Bell)

ESP - PSEG Mailing List

robert.kitchen@pgnmail.com (Robert H. Kitchen)
sabinski@suddenlink.net (Steve A. Bennett)
sfrantz@morganlewis.com (Stephen P. Frantz)
stephan.moen@ge.com (Stephan Moen)
trsmith@winston.com (Tyson Smith)
Vanessa.quinn@dhs.gov (Vanessa Quinn)
Wanda.K.Marshall@dom.com (Wanda K. Marshall)
whorin@winston.com (W. Horin)

Staff Evaluation of PSEG Request for Exemption from the Analysis of Probable Maximum Surge Flooding Required by 10 CFR 52.17(a)(1)(vi) for the PSEG Site Early Site Permit Application (Docket No. 52-043)

On August 4, 2010, the NRC docketed the PSEG Site Early Site Permit (ESP) application (Agencywide Documents Access and Management System (ADAMS) Accession No. ML102010714), submitted by PSEG Power, LLC, and PSEG Nuclear, LLC (PSEG). On March 5, 2014, the NRC staff issued a letter to PSEG (ADAMS Accession No. ML14049A130) stating that during its review of the response to the Request for Additional Information (RAI) No. 67 related to hydrology storm surge analysis, the NRC staff concluded that it needed further information and documentation in several areas to complete its safety evaluation. Based on the significance and complexity of the issues, the NRC staff also informed PSEG that completion of this review would require significant NRC staff time and resources well in excess of what was originally envisioned for this review prior to submission of the PSEG response to RAI No. 67.

In an April 30, 2014, letter, PSEG submitted a request for exemption from completing an acceptable maximum probable storm surge flooding hazard analysis that is necessary to demonstrate compliance with Title 10 of the *Code of Federal Regulations* (10 CFR), Section 52.17(a)(1)(vi) (ADAMS Accession No. ML14134A205). The proposed exemption would authorize deferral of the final analysis for the maximum probable storm surge flooding hazard at the proposed PSEG Site until such time that PSEG submits a Combined License (COL) application.

The regulations in 10 CFR 50.12, "Specific exemptions," state, in part, that the Commission may grant exemptions from the requirements of the regulations, if the exemptions are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security. 10 CFR 50.12 also states that the Commission will not consider granting an exemption unless special circumstances are present. PSEG asserts it has demonstrated special circumstances on three grounds, citing the criteria of 10 CFR 50.12(a)(2)(ii), (iii), and (v). The NRC staff has evaluated these bases for special circumstances and found them insufficient for granting the requested exemption as discussed below.

1. 10 CFR 50.12(a)(2)(ii)

PSEG cites 10 CFR 50.12(a)(2)(ii) as a basis supporting its exemption request. This criterion states, "Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule."

PSEG Basis

In Section VI, "Application of 10 CFR 50.12(a)," under item 4 of the enclosure to the April 30, 2014, letter, PSEG states that 10 CFR 50.12(a)(2)(ii) is met because application of the regulation to the PSEG Site Early Site Permit Application (ESPA) analysis of probable maximum surge flooding is not necessary to achieve the underlying purpose of the rule. PSEG further states that Site Safety Analysis Report (SSAR) Section 2.4.5, along with the response to Request for Additional Information (RAI) No. 67, provides the description and results of two analyses PSEG performed to determine the probable maximum storm surge flooding hazard at

ENCLOSURE

the PSEG Site. PSEG states that both of these analyses were performed using analytical techniques identified as appropriate in the applicable U.S. Nuclear Regulatory Commission (NRC) regulatory guidance. PSEG also states that it has made a good faith effort to adequately and accurately describe the flooding hazard from storm surge at the PSEG Site. However, PSEG states that due to the relative newness of the use of the Joint Probability Method with Optimal Sampling (JPM-OS) method of determining the surge hazard in NRC required analyses, the NRC staff is unable to use the JPM-OS results as the basis for their safety determination at this time.

Staff Response

This basis for PSEG's claim that special circumstances are present under 10 CFR 50.12(a)(2)(ii), does not apply. The maximum probable storm surge flooding hazard analysis, as part of the hydrology review, is a site characteristic that is essential to the NRC staff's finding of whether the site is suitable for issuance of an early site permit under 10 CFR 52.17. As an ESP is an NRC approval that a site suitable for locating a nuclear power facility or facilities, issuing an ESP while deferring the review of a major component of a safety site characteristic would be inconsistent with the NRC's regulatory intent and policy. A fundamental premise of the PSEG argument appears to be that PSEG has already completed a flooding hazard analysis in accordance with NRC regulatory guidance. While PSEG did provide two separate analyses based on analytical techniques identified in applicable NRC regulatory guidance, PSEG did not satisfactorily resolve the NRC staff's questions regarding the accuracy and technical sufficiency of these methods as applied to the evaluation at the proposed PSEG Site. The NRC staff performed an audit of the methods and their application, and met with PSEG staff on several occasions to resolve these issues without success. The NRC staff also met with PSEG to discuss options available to address the deficiencies identified by the NRC staff or alternative methods to evaluate site hazard storm surge. Although PSEG's use of the JPM-OS methodology for determining the maximum probable storm surge flooding hazard at the proposed PSEG site adds some complexity to the NRC staff's review, the need to satisfactorily resolve the NRC-identified deficiencies with PSEG's model results and assumptions is the primary impediment to the NRC staff completing its hydrology review. Because the NRC staff must complete its hydrology review in order to make a site suitability determination, deferring this review and making no storm surge findings would be inconsistent with the purposes of 10 CFR 52.17. Thus, PSEG has not shown that special circumstances are present under 10 CFR 50.12(a)(2)(ii).

2. 10 CFR 50.12(a)(2)(iii)

PSEG also cites 10 CFR 50.12(a)(2)(iii) as a basis supporting its exemption request. This criterion states, "Compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated."

PSEG Basis

In Section VI, "Application of 10 CFR 50.12(a)," under item 4 of the enclosure to the April 30, 2014, letter, PSEG states that 10 CFR 50.12(a)(2)(iii) is satisfied because more than 26 months after docketing of the PSEG ESPA, the NRC staff issued RAI No. 67 requesting that PSEG use more recent guidance than contained in the SRP. PSEG claims that the associated NRC staff review of PSEG's RAI response will impose undue hardships on PSEG by causing a substantial delay in issuance of the ESP attributable to NRC's request for PSEG to use analytical methods

not contained in the Standard Review Plan (SRP) as referenced in 10 CFR 52.17(a)(1)(xii). PSEG also states that the review will result in a significantly longer NRC review schedule than incurred by the other ESP applicants.

Staff Response

The NRC staff disagrees with this stated basis as well. The maximum probable storm surge flooding hazard analysis is required of all ESP applicants. The NRC staff reviewed PSEG's one-dimensional storm surge analysis using NRC guidance, as part of the initial ESP application. The NRC staff has completed reviews of similar analyses for multiple other projects. During its review, the NRC staff identified areas where additional information was needed, and issued RAI No. 39 on October 27, 2011 (ADAMS Accession No. ML11300A108) requesting that PSEG provide a technically correct and complete response. During review of the PSEG response to RAI No. 39, the NRC staff identified areas where critical information was missing, and issued RAI No. 67 (ADAMS Accession No. ML12303A012). This RAI likewise requested that PSEG address the missing information and provide a technically correct and complete response for the NRC staff to complete its review. The issues the NRC staff examined as part of PSEG's response to RAI No. 67 were not technically novel and were consistent with NRC guidance and reviews conducted for other ESP and COL applications. Rather than provide the information needed to resolve technical issues with PSEG's original analysis, which the NRC staff believes was nearly complete, PSEG submitted a new storm surge analysis. This model used the JPM-OS methodology. The NRC staff had questions about the assumptions and methods used in this new model. The costs incurred by PSEG in performing this new analysis are the result of PSEG's choice to take a different approach to its analysis (rather than providing the information requested by the staff to resolve its questions about PSEG's initial analysis), not the result of the NRC staff review. PSEG opted not to proceed with resolving the NRC staff's requests for additional information, and has instead requested an exemption. This exemption request would leave a major safety significant site characteristic unresolved in the ESP review process, which is intended to determine whether a site is suitable for constructing a nuclear plant. Moreover, it appears to the NRC staff that this safety issue could be resolved with a relatively small amount of additional analysis to address the staff's questions (e.g., several additional runs of the two dimensional deterministic storm surge analysis and use of the hierarchical hazard approach (HHA) methodology). The foreseeable delay in completing the NRC staff's review of the alternative methodology selected by PSEG (the JPM-OS methodology) does not constitute a special circumstance to justify the deferral of this review.

3. 10 CFR 50.12(a)(2)(v)

PSEG cites 10 CFR 50.12(a)(2)(v) as a basis supporting its exemption request. This criterion states, "the exemption would provide only temporary relief from the applicable regulation and the licensee or applicant has made good faith efforts to comply with the regulation."

PSEG Basis

In Section VI, "Application of 10 CFR 50.12(a)," under item 4 of the enclosure to the April 30, 2014, letter, PSEG states that 10 CFR 50.12(a)(2)(v) is met because the exemption would provide only temporary relief from the applicable regulation and PSEG has made good faith efforts to comply with the regulation. PSEG asserts that the temporary relief would be remedied when it submits a COL application for the PSEG site with a state-of-the-art storm surge analysis.

Staff Response

The NRC staff disagrees with PSEG's position. An ESP is a licensing action that is independent of a COL or Construction Permit (CP) action. By requesting an exemption to the requirement to provide the storm surge analysis, PSEG is not, in fact, requesting temporary relief from the requirements necessary to grant an ESP; it is requesting permanent relief from addressing this requirement as part of its ESP application.

The NRC staff also concludes that deferring its review of the safety significant storm surge flooding hazard to a later, separate licensing stage is not supported by applicable ESP regulatory history.

While the NRC ESP regulations specifically indicate that certain findings can be deferred to a later licensing stage (e.g., approval of complete and integrated emergency plans, or the National Environmental Policy Act (NEPA) evaluation of alternative energy sources or the costs and benefits of the proposed action, such as the "need for power"), NRC regulations do not support a conclusion that determination of any safety site characteristic – let alone one that is as central to the ultimate question of site suitability as the probable maximum flood – can be left unresolved until a later licensing application without undercutting the regulatory purpose of an ESP to resolve all necessary site suitability issues. For these reasons, PSEG has not shown that the special circumstance criterion in 10 CFR 50.12(a)(2)(v) is applicable.

Overall Staff Conclusion

The NRC staff finds that PSEG has not demonstrated that special circumstances in 10 CFR 50.12 are present. Therefore, the NRC staff denies the exemption request for completing an acceptable analysis of probable maximum surge flooding in their ESP application.