



PSEG Nuclear Development Early Site Permit Review Status Office of New Reactors

June 10, 2014



Agenda

- ESP Hydrology Review Timeline
- PSEG Options for Probable Maximum Storm Surge
- ESP Finality
- PSEG Request for Temporary Exemption Related to the Storm Surge Analysis
- Moving Forward

ESPA Hydrology Review Timeline

ESPA Hydrology Review – 1 Dimensional Model

- December 2009 NRC public pre-application meeting to discuss approach
- May 25, 2010 – PSEG submits ESP application
 - includes 1 Dimensional PMSS model
 - August 4, 2010 – NRC accepts and docketes ESPA
- November 29, 2010 – Initial NRC Review schedule issued
 - FSER to be issued 7/2013 (36 months from acceptance)
- February 15 – 18, 2011 – Site Hydrology Audit
 - positive feedback from staff on PMSS model
- October 27, 2011 – First PMH RAI issued (RAI #39)

ESPA Hydrology Review Timeline (cont)

ESPA Hydrology Review – 2 Dimensional Model

- October 29, 2012 – RAI #67 issued
 - staff requests that PSEG provide an analysis of the PMH events using a conservative, current practice approach such as those predicted by a two-dimensional storm surge model
- November 27, 2012 – PSEG informs NRC that RAI #67 response will be submitted by May 15, 2013
- May 13, 2013 – PSEG informs NRC that the PMSS analysis will be conducted using the JPM-OS methodology
 - RAI #67 response date revised to October 31, 2013

ESPA Hydrology Review Timeline (cont)

- July 1, 2013 – PSEG presents RAI #67 response methodology (JPM-OS) to staff
 - positive feedback from staff
 - Meeting summary stated “approach to, and scope and depth of the forthcoming response to RAI 67 is reasonable.”
- September 26, 2013 – PSEG presents JPM-OS results to staff
 - positive feedback from staff
 - Meeting summary stated “approach to, and scope and depth of the forthcoming response to RAI 67 is reasonable.”
- November 27, 2013 – PSEG submits final response to RAI #67

ESPA Hydrology Review Timeline (cont)

ESPA Hydrology Review – 2-D JPM-OS Model

- January 8, 2014 - public telephone conference with PSEG on RAI #67 response
 - questions regarding PSEG's use of the Joint Probability Method (JPM) for the storm surge analysis
- February 4 – 6, 2014 – Site Hydrology Audit
 - focused on RAI #67 response and JPM-OS methodology
 - NRC identified areas where further information or documentation is needed
 - SSAR Subsection 2.4.5 markup submitted with RAI #67 response
 - documentation of supporting models and modeling assumptions

ESPA Hydrology Review Timeline (cont)

Schedule Impact

- March 5, 2014 – NRC issues schedule revision letter
 - several modeling decisions and assumptions relative to the probabilistic storm surge analysis that will require additional information and substantial staff review
 - requires significant staff time and resources well in excess of what was originally envisioned for the SSAR review
 - unable to issue a revised review schedule
- March – April 2014 – numerous calls with NRC staff to discuss revised review schedule – no clear success path

PSEG PMSS Options

- 1) Answer JPM questions and delay review of application for 1+ years
- 2) Submit a different 2-D analysis for which there is no review guidance - could require additional lengthy review
- 3) Suspend review until NRC develops experience and review guidance for JPM method
- 4) COL Action Item or ESP Permit Condition
- 5) Exemption request

PSEG ESP FINALITY

- **Emergency Planning**
 - complete and integrated E-plan
 - State and local participation affirmed
 - EALs defined at COL phase
- **ER**
 - “new and significant” hurdle
 - technology-specific impacts
- **SSAR**
 - technology selection
 - changing regulatory guidance (seismic, flooding, site hazards)
 - new methodologies adopted, but not supported by review guidance

ESPA Temporary Exemption Request

- Temporary exemption from the storm surge flood analysis required by 10 CFR 52.17(a)(1)(vi)
 - minimize unnecessary schedule delays
 - minimize effort due to evolving regulatory guidance
 - enable NRC to complete review of similar analyses for operating plants (including Salem and Hope Creek)
- PSEG commitment to complete full storm surge flood analysis as part of a COLA
- Exemption request meets all requirements set forth in 10 CFR 52.7 and 10 CFR 50.12

ESPA Temporary Exemption Requirements

- The exemption is authorized by law
- The exemption does not present an undue risk to the public health and safety
 - exemption only affects timing of final analysis for PMSS flooding
 - issuance of an ESP for the PSEG Site does not allow PSEG to perform any construction activities
 - will not affect any NRC requirements for existing units
- The exemption is consistent with the common defense and security
 - will not authorize possession of licensed material or affect any NRC security requirements

ESPA Temporary Exemption Requirements (cont)

- Special circumstances are present
 - PSEG has made a good faith effort to adequately and accurately describe the flooding hazard
 - analysis of PMSS flooding is not necessary to achieve the underlying purpose of the rule
 - compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted
 - exemption would provide only temporary relief from the applicable regulation
 - SSAR states “Floor elevations for safety-related SSCs ... will be established to maintain one foot of clearance above the DBF”
 - existing PSEG units CLB provide acceptable flood levels
 - COLA design will incorporate any necessary changes to flood levels

ESPA Temporary Exemption Summary

- Deferral of final resolution of PMSS flooding hazard to COL phase will
 - enable NRC review of the PSEG Site ESPA to be completed without further schedule jeopardy
 - not adversely affect the NRC staff's ability to make a final safety conclusion on the remaining aspects of the PSEG Site ESP application
 - ensure that PSEG will undertake no licensed construction activities until after it obtains a future COL after completing the storm surge flood analysis

Other (non-PMSS) ESP actions

■ PSEG Actions

- complete Advanced SER review for remaining SSAR sections within 14 days
- support ACRS subcommittee meeting schedule
- prompt response to follow-up RAIs

■ NRC Actions

- expeditious approval of the temporary exemption request
- schedule the remaining ACRS subcommittee meeting by July 1, 2014
- issue the DEIS in accordance with the revised schedule (September 2014)