

PSEGESPCEm Resource

From: Elizabeth Koniers Brown [elizabeth@delawariverkeeper.org]
Sent: Tuesday, December 14, 2010 11:50 PM
To: PSEGESPEIS Resource
Subject: Salem Early Site Permit Comment
Attachments: Salem Early Site Permit Public Comment 12.14.10 FINAL.pdf

Elizabeth Koniers Brown
Director of Strategic Initiatives
Of Counsel
Delaware Riverkeeper Network
300 Pond Street, 2nd Floor
Bristol, PA 19007
p. 215.369.1188 x108
f. 215.369.1181
e. elizabeth@delawariverkeeper.org

Remember the River

www.delawariverkeeper.org/remember

To remind us all to Remember the River in every decision we make; And to hold our elected officials accountable to do the same.

CONFIDENTIALITY NOTICE: This message is intended only for the use of the Addressee and may contain information that is privileged and confidential. If you are not the intended recipient, you are hereby notified that any dissemination of this communication is strictly prohibited. If you have received this communication in error, please erase all copies of the message and its attachments and notify us immediately. Thank You.

Please consider the environment before printing this email.

Federal Register Notice: 75FR63521
Comment Number: 4

Mail Envelope Properties (002601cb9c13\$8300a3c0\$8901eb40\$)

Subject: Salem Early Site Permit Comment
Sent Date: 12/14/2010 11:49:52 PM
Received Date: 12/14/2010 11:49:57 PM
From: Elizabeth Koniers Brown

Created By: elizabeth@delawareriverkeeper.org

Recipients:
"PSEGESPEIS Resource" <PSEGESPEIS.Resource@nrc.gov>
Tracking Status: None

Post Office: org

| Files | Size | Date & Time |
|---|-------------|------------------------|
| MESSAGE | 1074 | 12/14/2010 11:49:57 PM |
| Salem Early Site Permit Public Comment 12.14.10 FINAL.pdf | | 74890 |

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:



VIA ELECTRONIC MAIL

Chief, Rules, Announcements, and Directives Branch
Division of Administrative Services
Office of Administration
Mailstop TWB-05-B01M
US Nuclear Regulatory Commission
Washington, DC 20555-0001
PSEGSITE.ESP@nrc.gov

Re: Docket NRC–2010–0215; Public Comment on NEPA Scoping for PSEG (Salem)
Early Site Permit Application

Dear Commission Chief:

On behalf of the Delaware Riverkeeper and Delaware Riverkeeper Network (collectively DRN), I am pleased to provide the following comments. As you may know, DRN is committed to restoring the watershed's natural balance where it has been lost and ensuring its preservation where it still exists. DRN understands that PSEG Power LLC and PSEG Nuclear, LLC (PSEG) have submitted an application for an early site permit (ESP) for the PSEG Site, which is located on the southern part of Artificial Island on the east bank on the Delaware River in Lower Alloways Creek Township, Salem County, NJ.¹ The application was submitted pursuant to 10 C.F.R. Parts 51 and 52. DRN also understands that the Nuclear Regulatory Commission (NRC or Commission) intends to prepare an Environmental Impact Statement (EIS) as part of its

¹ The PSEG Site is defined as the land area owned (819 acres [ac.]) and/or controlled by PSEG when the combined license is issued. All but 45 ac. of the lands used for new plant construction will be within the PSEG Site property boundaries. ER 4.1.1.

review of the proposed ESP for the PSEG Site and is accepting comments as part of the scoping process.

PSEG submitted an Environmental Report (ER) to NRC in May 2010 which contains the project proponent's assessment of environmental issues related to site construction and operation. The ER uses the NRC criteria established in 10 CFR 51, Subpart A, Appendix B, Table B-1, Footnote 3 to assess whether environmental effects will be "small", "moderate" or "large".² Delaware Riverkeeper Network is concerned that the characterizations of environmental effects by PSEG will be accepted whole-cloth in an EIS for the Project, in effect outsourcing the burden of drafting the EIS to the project proponent. This would constitute an inappropriate use of the NEPA process. Therefore, DRN urges NRC to review certain issues in more detail, including: clearer evaluation of PSEG's use of the Army Corps confined disposal facility, and cumulative impacts resulting from use of that site; water impacts including dredging and construction impacts; filling of wetlands; floodplain impacts; habitat impacts and impacts to species, especially Atlantic sturgeon; and impacts and evaluation of alternatives for cooling systems.

The EIS should require clearer evaluation of PSEG's use of the Army Corps confined disposal facility, the agreement to do so, and any cumulative impacts resulting from use of the site. According to the ER 4.1-9, there will be construction laydown and related activities located in the Corps CDF site. It is unclear what long-term or permanent impacts may result,

² Small effects are defined as "Environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource. For the purposes of assessing radiological impacts, the Commission has concluded that those impacts that do not exceed permissible levels in the Commission's regulations are considered small. Moderate effects are defined as "Environmental effects are sufficient to alter noticeably, but not to destabilize, important attributes of the resource." Large effects are defined as, "Environmental effects are clearly noticeable and are sufficient to destabilize important attributes of the resource."

despite the site use for temporary activity. The NRC should consider these potential impacts and the full range of alternatives in its EIS. Moreover, the EIS should consider the chain reaction of environmental impacts if the CDF is used for another purpose. The NRC should also examine the mechanism by which the Army Corps is providing the use of this land and any impacts this may have on Army Corps permit reviews or regulatory processes for the Project.

The ER acknowledges that hydrogeological impacts will result from dredging near-shore areas of the Delaware River for water intake, water discharge, and barge access areas (modifying the existing HCGS barge slip.) DRN has long advocated for comprehensive environmental review of dredging projects that will result in significant harm to the Delaware River's environmental values through dredging and filling, blasting, and degraded water quality. Section 4.2.1.1.4 of PSEG's ER describes the proposed dredging as follows:

Alteration of surface waters within the Delaware River include those associated with the development of shoreline features (intake structure, barge facility, heavy haul road), and dredging (Figure 3.1-2). Constructed features along the Delaware River shoreline require the filling of 9.5 ac. of coastal wetlands and shallow open water areas (Subsection 4.3.2.3). Construction of these facilities includes the installation of sheet piling, bulkheads, and backfilling to create the constructed project utilization area. Shorelines will be stabilized and protected from erosion by the use of hardened bank applications (concrete, riprap, etc.). Consequently, in consideration of the small area of river to be modified relative to the size of the Delaware River, and based on the use of hardened bank treatments that minimize shoreline erosion, potential construction related impacts to the Delaware River are SMALL, but warrant mitigation in accordance with the NJDEP and USACE requirements.

Sediments from the near-shore area of the Delaware River Estuary will be dredged to provide for water intake and discharge and to provide adequate draft for barge access during construction. Construction of the new barge unloading facility and mooring area will require lowering of the river bottom an average of 4.5 ft. over an area of 61 ac. (dredging of 440,000 cubic yards of sediment). Barge mooring caissons will be constructed. Each caisson is 20 ft. in diameter resulting in the loss of 0.05 ac. of river bottom habitat for seven caissons. Construction of the new intake structure requires lowering the river bottom an average of 4.5 ft. over an area of 31-ac. (dredging of 150,000 cubic yards of sediment).

The total area to be dredged is 92 ac., extending riverward 1700 ft. from the shoreline, or 13 percent of the 2.5-mi. river width at this location. Dredging may include both mechanical and hydraulic dredging methods. Dredged material removed as part of this construction activity will be transported to and placed in an on-site or other approved upland disposal facility. The potential impacts of the dredging activities on water quality are described in Subsection 4.2.3.1.

Potential impacts to benthic organisms are discussed in Section 4.3. BMPs for dredging implemented during this activity will comply with requirements of the USACE Section 10/404 and NJDEP permits. Hydrologic alterations associated with this activity include localized changes in flow patterns along the river bottom due to differences in bottom contours at the edges of the dredge zone. From a river flow cross section perspective, the dredged area for barge access would add a total of 7500 square feet (sq. ft.) to an existing cross section of 220,000 sq. ft. (low water) to 270,000 sq. ft. (high water), or a localized increase in flow area that is in the range of 2.5 to 3.5 percent. Accordingly, the average velocity within the dredged area is reduced in proportion to the increase in cross sectional area. However, these small scale alterations in river flow are minimal in the context of the large size of the Delaware River and regular tidal flows. In consideration of the magnitude of the tidal flow and the size of the Delaware River, potential impacts associated with dredging are SMALL.

Clearly, the EIS will need to address the impact of dredging and related shoreline disturbance and take all viable alternatives into account.

The ER also estimates that the Project will permanently disturb 126.6 acres of wetlands on the site. The EIS must make a full and fair evaluation of the impacts of this permanent loss of wetlands and habitat, and consider all viable alternatives to this loss.

The impact of the Project, standing alone, as well as that of the cumulative land-use and development patterns in Salem County and the surrounding area, upon stormwater pollution should also be considered in depth in the EIS. The ER does not adequately address this issue.

Impacts to habitat and important aquatic species must also be rigorously evaluated in the EIS. In particular, DRN is concerned with the impact of the Project on Atlantic sturgeon. The ER acknowledges that appropriate habitat for juvenile Atlantic sturgeon exists in the project area, that direct impacts to Atlantic sturgeon could include exposure to fine sediments, or collisions

with propellers or water borne equipment, and that “dredging activities will likely displace this and other fish from the immediate dredge zone.”

Since the preparation of the ER, NOAA’s National Marine Fisheries Service (NMFS) issued a proposed rule (October 6, 2010) to list five distinct population segments (DPS) of the Atlantic sturgeon as threatened or endangered under the Endangered Species Act (ESA). In recognition of the many threats to riverine habitat, including dredging, filling, and degraded water quality, facing Atlantic sturgeon in the Hudson and Delaware Rivers, NMFS proposed to list a DPS consisting of these populations, the New York Bight (NYB) DPS, as endangered. See, 75 Fed. Reg. 61,872 at 61,881 (Oct. 6, 2010). We also note with alarm that the Delaware River population of Atlantic sturgeon is more precariously poised than the Hudson River population, according to research on the record. According to the *Delaware River State of the Basin Report, 2008*, which is based on science collected in the region, the status of the Atlantic Sturgeon is considered “poor and getting worse” with numbers “estimated to be less than 1,000 and probably less than 100 across the Estuary.” Furthermore, there is scientific evidence that the Delaware River is home to a genetically unique population of Atlantic Sturgeon, and that this small but distinct population is currently reproducing. That the Delaware River population is not only genetically unique but also may have a population of fewer than 100 fish makes protection of this portion of the NYB DPS a critical priority.

This change in status means that a critical piece of information is missing from the ER, and must be evaluated fresh in NRC’s creation of the EIS.

Finally, NRC must evaluate the impacts and all viable alternatives for cooling. DRN notes that EPA’s Phase I regulations for new sources require closed-cycle cooling, which the new plant will have. 68 Fed. Reg. 36749-36755 (June 19, 2003). DRN has long advocated for

closed-cycle cooling at the existing Salem facility. However, that does not mean that closed-cycle cooling is without impacts, or that one size fits all when selecting the specific cooling technology. According to the ER “Compared with a once-through cooling system, a closed cycle cooling system substantially reduces the volume of water diverted for cooling but increases consumptive water use as a result of evaporation loss in the cooling tower.”

Although the water volume withdrawn from the Delaware River by the closed cycle new plant is substantially lower, there will still be impingement and entrainment of aquatic life, as well as potentially significant thermal impacts from the closed-cycle cooling system. Maximum intake of the new plant is estimated in the ER to be equivalent to 3.7 percent of the intake flow of once-through cooling at the existing Salem facility. However, regarding thermal discharge, the new plant discharge is located within the region already influenced by the thermal discharges of the existing Salem and Hope Creek facilities. The impact of this situation on thermal plume must be fully and rigorously evaluated in the EIS, regardless of any applicable mixing zone.

The ER notes that PSEG is evaluating three different closed-loop designs for the cooling water system of the new plant: mechanical draft, natural draft, and fan-assisted natural draft. However, only the mechanical and natural draft designs were evaluated in the ER. The EIS must evaluate all alternatives, including any not evaluated in the ER, to ensure that all environmental impacts are adequately assessed.

One final note is that in considering impacts in the EIS, construction-phase impacts should not be discounted as temporary. According to the ER, construction – and therefore construction-related impacts – will occur over an approximately five year time period and will include site excavation and the construction of safety-related structures.

DRN also stresses the importance of public transparency concerning the Army Corps' role in this Project, including transparency regarding the Corps' prior and anticipated commitments to PSEG that may impact its permit review function.

Thank you for your consideration of these comments.

Respectfully submitted,

Elizabeth Koniers Brown

Elizabeth Koniers Brown
Director of Strategic Initiatives