1. Overview

Provide a knowledgeable expert to discuss the relocation of a section of Walker Run, specifically:

- Mapping the locations of the section to be filled, the section to be build, and tributaries that might be affected, and the location of Market Street. - S&L
- The length of the constructed section versus that of the section that would be filled. - S&L
- The consideration of recent runoff pattern (versus the historic patterns described in the ER Section 2) in the redesign of Walker Run and any other water bodies that would be modified by the proposed actions. - Rizzo
- The Natural Channel Design Method. - S&L
- The potential effects of relocation Walker Run closer to Market Street versus its present location. - Rizzo
- Walker Run location and characteristics of the reference channel mentioned on ER page 4-43. - S&L
- The times of the year that the stream relocation would occur and its potential effects on re-colonization of the new channel. - Rizzo
- The potential rescue of fish in the section of Walker Run to be relocated. - Areva

2. References

- Figure 4.3-3, Relocated Portions of Walker Run
- ER pages 4-41 and 4-42

3. Response

Response to Bullet No. 1

See Figure 4.3-3, Relocated Portions of Walker Run. There are no tributaries to Walker Run that are directly affected. However, where Walker Run turns west a tributary ties to Walker Run from the west. That tributary is storm water that flows in an un-named tributary from the east and then north. A 60" culvert on the tributary carries flow under Beach Grove Road, which is the road on the north side of the plant. From Beach Grove Road to the plant site, the only portions of the drainage path that are blocked and replaced using culverts are just south of Beach Grove Road where the tributary is crossed by a railroad track, and two places east of the plant where the drainage path is blocked by a plant road. The pathway is totally blocked by installation of the power block. To keep the waterway active a large culvert connects the pathway with the wetlands south of the power block.

Response to Bullet No. 2

Figure 4.3-3 shows the two lengths. The length of Walker Run to be filled is 2400 feet long. The length of the relocated section is 3190 feet long.

Response to Bullet No. 3 (from April 3, Rizzo Response, presented at the Audit)

From FSAR 2.4.2 "…All runoff from the BBNPP site enters the North Branch Susquehanna River at the mouth of
Walker Run. The BBNPP site sits on a relatively flat upland area about 174 ft (53 m) elevation above the nominal Susquehanna River level. The site is 22 mi (35 km) downstream of Wilkes-Barre, PA and 5 mi (8 km) upstream of Berwick, PA. The BBNPP site is situated in the Walker Run watershed, which is within the Middle Susquehanna River Sub-basin and has a drainage area of 4.10 mi2 (10.6 km2). Walker Run Stream flows along the western side of the BBNPP site. An Unnamed Tributary to Walker Run flows along the south/southeast boundary of the site.

Walker Run was analyzed for the Probable Maximum Flood (PMF) due to its proximity to the fact that the site lies within Walker Run Watershed. The analysis was based on the reroute of Walker Run to reflect the post-construction site layout as displayed in Figure 2.4-5. Walker Run flows towards the south until it converges with the Susquehanna River at approximately river mile 164 (km 264). Walker Run collects runoff from the area surrounding the plant site and also areas northwest, west, and southwest of the plant site. The total collection area for the Walker Run watershed is approximately 4.10 $mi^2$ (10.61 $km^2$). Walker Run has a difference in elevation of approximately 290 ft (88 m) over its entire length with an overall slope of 1.5 percent. The PMF evaluation for SSES Units 1 & 2 showed the PMF elevation on the Susquehanna River would not reach an elevation of 548 feet. The site elevation for SSES Units 1 & 2 is 670 ft (204 m) msl. There is a 122 foot difference in elevation for the existing PMF evaluation and the site grade. BBNPP site elevation is 674 feet and after assessing the PMF evaluation, it is not possible for the PMF to increase to 126 feet to cause any flooding at the proposed BBNPP site (PPL, 1999). The Unnamed Tributary adjacent to the project site was modeled as a flow change location within the Hydrologic Engineering Center's River Analysis System Version 3.1.3 (HEC-RAS 3.1.3) at the corresponding cross section location 11,594. The Unnamed Tributary channel will be removed and the flow will be diverted to ESWEMS Retention Pond. All safety-related structures, systems, and components for BBNPP are located at approximately El. 674 ft (205.4 m) msl. The results of the PMF analysis indicate a maximum PMF water surface elevation of 670.96 ft (204.51 m) msl at Walker Run."….