Comments on Sunbury Generation LP – Shamokin Dam draft report

EPA: None

State: None

Company: See letter dated October 15, 2010

Sunbury Generation LP

October 15, 2010

Mr. Stephen Hoffman
US Environmental Protection Agency (5304P)
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Mr. Hoffman:

We have reviewed the Dam Safety Assessment of CCW Impoundments-Sunbury Generation LP dated June 17, 2010 and offer the following comments:

Page 3, Item 2.2 Hazard Potential Classification, Paragraph 2 states that "If the Basin were to overtop and fail in the southwest corner, the close proximity and difference in elevation between the top of the dam and the cottages indicate that the cottages would be inundated, causing significant property damage and possible loss of life".

Comment: A basin overtopping event would require a storm/flood event greater in magnitude than the Mid-Atlantic United States flood of 2006, in which the area received approximately 12-14 inches of rain. This flood was considered by the National Weather Service to be an approximately 200 year storm event and it has been reported that the worst flooding in the state took place in the Susquehanna River valley and its tributaries. During this event, there was no risk of overtopping of the basin noted. Further, and due to the close proximity of the cottages to the Susquehanna River, a voluntary evacuation order was issued for the residents of the cottages by the local emergency management agency. Therefore, as the Susquehanna River would flood this area before any overtopping event were to occur from the basin, it is unlikely that any residents of the cottages would be present given that the local emergency management agency would have already issued an evacuation order. Based upon current elevation maps, in the event of a flood of this magnitude these properties would be significantly underwater prior to over-topping of the ash impoundment basin.

Page 3, Item 2.2, Hazard Potential Classification, Paragraph 4 states that *"The Basin is approximately 20 feet high and impounds approximately 1240 acre-feet of water and coal ash (based on an area of 62 acres and a depth of 20 feet)".*

Comment: As noted later in the report, only 16 acres of the original 62 acres remain ponded. Taking this into consideration, the impounded water/coal ash area is less than 400 acre feet (320 acre/feet) at worst case conditions. As related to this, ash has been placed to grade in 46 acres of the basin and the ash has been dewatered and compacted to the extent that heavy equipment and site vehicles have operated safely for more than 5 years without experiencing any type of "quick-sand" conditions. In fact, dry portions of the basin have received PADEP approval for use as a "lay-down" and staging area for equipment related to the adjacent Sunbury Generation LP power plant. Therefore, in the event that the impoundment would fail, it is impossible that coal ash and water to discharge from the entire 62 acre facility.

Page 6, Item 3.1.1 Stormwater Inflows, Paragraph 4 states the following: *"The regulatory flood event for dam safety regulations is of a significantly greater magnitude. For a Class B structure it can range from the 100 year storm (5-8 inches) to the Probable Maximum Flood (PMF) (25-40 inches)"*

Comment: Based on the fact that the ponded area is now only 16 acres and has a worst case depth of 20 feet, the size of impounded area is 320 acre feet. Therefore, this facility should be classified as C2 (C=Less than 1,000 acre/feet, and 2= Few; no rural communities or urban developments and no more than a small number of habitable structures). Therefore, for this structure the applicable regulatory flood event is a 100 yr to ½ PMF. Depending on the range of the PMF (25-40 inches), ½ of the PMF could range from 12.5 inches on the low end to 20 inches on the high end. Furthermore, the facility was operated during the Mid-Atlantic United States flood of 2006, in which the area received approximately 12-14 inches of rain. This flood was considered by the National Weather Service to be a 200 year storm event and it has been reported that the worst flooding in the state took place in the Susquehanna River valley and its tributaries. During this event, the basin experienced no unusual conditions or damage that required any type of emergency action.

Page 11, Item 5, Conclusions, Paragraph 1 states the following: *"There is significant undesirable and uncontrolled trees and woody vegetation growth on the east embankment slopes……."*

Comment: As discussed in the previous comment, the facility was operated during the Mid-Atlantic United States flood of 2006, in which the area received approximately 12-14 inches of rain. This flood was considered by the National Weather Service to be an approximately 200 year storm event and it has been reported that the worst flooding in the state took place in the Susquehanna River valley and its tributaries. During this flood, there was no damage to the east embankment slopes resulting from the woody vegetation that is in place. Also, a majority of eastern embankment slope is located along the dry portion of the basin where ash has already been placed for at least 10 or more years and no longer contains any impounded water. In fact, 3.0 acres along this side of the basin is currently utilized for the final cover soil stockpile area. As such, it is feared that removing the mature tree growth would only serve to destabilize the embankment until a permanent vegetative cover (grasses) could be established. During this time, the embankment would be highly vulnerable to erosion should a flood of a similar magnitude occur.

Page 12, Item 6.1, Urgent Action Items, of the report indicates the following: *"None of the recommendations are considered to be urgent, since the issues noted above do not appear to threaten the structural integrity of the dam in the near term".*

Comment: The basin rating should be upgraded from poor status to fair status based on the fact that there are no urgent action items listed in Item 6.1. A rating of poor may be incorrectly perceived that Sunbury Generation, LP has and/or is currently neglecting it's operational responsibilities for the basin, and is simply ignoring any safety or environmental requirements or concerns.

General Comments: Sunbury Generation LP has abided by all permit requirements for this facility as issued by the PA Department of Environmental Protection, Bureau of Waste Management under Residual Waste Disposal Impoundment Permit No. 301306. There have been no violations issued for this facility by the PA DEP since Sunbury Generation LP has assumed operation of the impoundment.

Finally, it should be noted that Sunbury Generation LP is currently evaluating the feasibility of a new bottom ash handling system that would no longer require operation of the basin. Should Sunbury Generation LP decide to implement installation of the new system, it will close the basin in accordance with the approved closure plan for this facility as approved by the PA DEP. In addition, other options may include the construction of a much smaller operational containment pond (approximately 2 acres @ 10 feet of depth) that would no longer require the remaining 16 acre area to be impounded.

Please feel free to contact us directly with any additional comments or concerns. We may be reached at 570-884-1247.

Sincerely,

Edward Griegel
Vice President Operations