Comments on Draft Dam Assessment Report – Flint Creek Plant

- June 6, 2011 -

AEP has reviewed the draft report provided by Dewberry & Davis (D&D) as part of their assessment of the primary and secondary ash impoundment facilities at the Flint Creek Plant and would like to offer the following comments. AEP's comments are denoted in italic print after each excerpt from the D&D draft report.

1.1.2 Conclusions Regarding the Hydrologic/Hydraulic Safety of the Management Unit(s)

Hydrologic and hydraulic analyses provided to Dewberry indicate adequate impoundment capacity to contain the 1-percent probability/Probable Maximum Precipitation design storm without overtopping the dikes.

The reference to a "1-percent probability/Probable Maximum Precipitation design storm" seems confusing. The H&H analysis report concluded that "both dams are hydraulically adequate for the full range of storm events from the 10¬year to the 100% PMF event."

Table 2.1: Summary of Dam Dimensions and Size	
	Primary Bottom Ash Pond
Dam Height (ft)	46.5
Crest Width (ft)	12
Length (ft)	820
Side Slopes (upstream) H:V	3:1
Side Slopes (downstream) H:V	3:1
Table 2.1a: Summary of Dam Dimensions and Size	
	Secondary Bottom Ash Pond
Dam Height (ft)	35
Crest Width (ft)	12
Length (ft)	750
Side Slopes (upstream) H:V	3:1
Side Slopes (downstream) H:V	3:1

The dam height listed for the primary ash pond in Table 2.1 of the consultant's report is 46.5 ft. The base of the dam at the lowest point on the downstream toe is slightly above El. 1110 ft. (as shown on Dwg. FCX-3, Sheet 1) and the top of dam is at El. 1155 ft. (as shown on Dwg. FCX-3, Sheet 2) which results in a conservative dam height of 45 ft.

Table 2.3a: Maximum Capacity of Unit	
Primary Bottom Ash Pond	
Surface Area (acre)[1]	42.8
Current Storage Capacity (cubic yards)[1]	80,700
Total Storage Capacity (acre-feet)	484.1
Crest Elevation (feet)	46.5
Normal Pond Level (feet)	36.5
Table 2.3b: Maximum Capacity of Unit	
Secondary Bottom Ash Pond	
Surface Area (acre)[1]	3.7
Current Storage Capacity (cubic yards)[1]	Minimal- Ash is routinely removed for beneficial use
Total Storage Capacity (acre-feet)	24.3
Crest Elevation (feet)	35
Normal Pond Level (feet)	22

Tables 2.4a and 2.4b (which are mislabeled as 2.3a and 2.3b) list the crest elevations and normal pond levels in height. These data are normally reported as elevations. The crest elevation and normal pond level for the primary ash pond are El. 1155 ft. and 1146 ft., respectively, and for the secondary ash pond are El. 1155 ft. and 1143 ft., respectively.

3.0 SUMMARY OF RELEVANT REPORTS, PERMITS, AND INCIDENTS

Summary of Reports on the Safety of the Management Unit

SWEPCO provided two dam inspection reports:

- Report For The Inspection Of Flint Creek Ash Pond, Golder Associates May 2009 (See Appendix A – Doc 5)
- Dam & Dike Inspection Report, SWEPCO, September 16, 2009 (See Appendix A – Doc 6)

Please note that the Dam & Dike Inspection Report, SWEPCO, September 20, 2010, was also provided.

5.2 PRIMARY/SECONDARY POND WEST DIKE

The title for Section 5.2 should be corrected. D&D refers to the Primary / Secondary Pond West dike, which should be the Secondary Ash Pond Dike.

5.3 INCISED PRIMARY AND SECONDARY PONDS

5.3.1 Incised

The titles for Section 5.3 and Section 5.3.1 are confusing and the wording should be modified in the paragraph. Flint Creek has no incised ponds. Dikes are on the west side of the primary pond with the railroad track along the north side of the pond. For the secondary pond, the dike is along the north side of the pond. The other sides of the ponds are natural ground, which would not require a visual inspection.

Appendix A

We note that D&D has chosen to include a copy of all documents provided to them by AEP as appendices to the report. While we have not raised a claim of business confidentiality for these documents, we do not believe it is necessary to include the several hundred pages of supporting documents that we provided for D&D's review. In reviewing the final reports posted by EPA on their website for other facilities, most reports from the earlier rounds of site assessments contain none of these types of documents and question why it is now being done.

We strongly recommended that the documents supplied by AEP in Appendix A be removed and as an alternative that a list of the documents that were provided be given as a bibliography in an appendix, similar to what was done by Paul C. Rizzo Associates, Inc. for Duke Energy's Dan River Steam Station, (see Appendix E):

http://www.epa.gov/epawaste/nonhaz/industrial/special/fossil/surveys2/dan-river-final.pdf

NOTE

Subject: EPA Comments on Southwestern Electric Power Co - Flint Creek Power Station, Gentry, AR
Round 9 Draft Assessment Report

To: File

Date: September 26, 2011

1. On p. 1-2, Section 1.1.7 "Conclusions Regarding the Adequacy of the Surveillance and Monitoring Program," in the third line, replace "monitor" with "monitoring."

2. On pp. 2-3 and 2-4, tables 2.3 a and b, there appears to be a footnote designation after "Surface Area (acre)" and "Current Storage Capacity (cubic yards)" in each table, yet no footnote exists.

3. On page 9-1, Section 9.0 "Adequacy of Surveillance and Monitoring Program", it is not noted that there exists any daily inspection procedure, but rather on a monthly basis. If there is any daily visual inspection or any procedure for noting the height of the water within the impoundment or high water alarm, it should be noted in the report.

4. pp. 197-199 of the document are blank pages, please correct/remove.

5. On p. 4 of each of the field observation checklists, under "Liner" the response provided is "N/A." Please indicate if the unit has a liner or not for each impoundment.

M E M O R A N D U M

TO: Jana Englander

FROM: Jerry Strauss

cc:

Date: December 01, 2011

SUBJECT: AEP Southwestern Electric Power, Flint Creek Power Station, Response to Comments

EPA Comments: editorial comments were addressed. Daily inspections referenced. We deleted blank pages in Appendix A; Corrected the Checklists to reflect No Liners

AEP Comments:

- Dewberry revised the Tables in section 2 – correcting the dam heights and providing crest elevations.
- Noted the Dam & Dike Inspection Report, SWEPCO, sep 20 2010.
- Section 5 – revised titles to avoid confusion.
- Dewberry did not reduce the number of docs in Appendix A. Those provided are needed by the reader to confirm our findings.