

US EPA ARCHIVE DOCUMENT

Comments on DTE's Monroe Plant

EPA:

Could not find EPA Inspection Checklist for Bottom Ash Stormwater Pond.

State: None

Company: See attached letter dated March 8, 2011

Detroit Edison



A DTE Energy Company

PAUL TRACY
Plant Manager
(734)384-6812

March 8, 2011

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

Re: GZA GeoEnvironmental, Inc. Round 7 Dam Assessment – Draft Report
Detroit Edison Monroe Power Plant Fly Ash Basin and Bottom Ash Pond

The Detroit Edison Company (Detroit Edison) appreciates the opportunity to review and provide comments, clarifications and/or corrections to the draft report Round 7 Dam Assessment DTE Energy Monroe Power Plant Fly Ash Basin and Bottom Ash Stormwater Pond.

Detroit Edison understands that the draft report was prepared by GZA GeoEnvironmental, Inc. (GZA) at the request of the U.S. Environmental Protection Agency (EPA) under Contract No. EP10W001313, Order No. EP-CALL-0001 and that the purpose of the draft report was to provide EPA with the details of the site-specific inspection of the impoundments to assist EPA in assessing the structural stability of the impoundments under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act Section 104(e).

Detroit Edison also understands that based on GZA's visual inspection, and in accordance with the EPA's criteria, the Fly Ash Basin and the Bottom Ash Stormwater Pond were found to be in **SATISFACTORY** condition, and that these comments will be provided so that EPA can assess the factual correctness and completeness of the draft report.

COMMENTS:

Page 3, section 1.2.4: The steepest exterior slope is 1.8H:1V, not the stated 1.5H:1V. Additionally, since this slope only occurs along the drier, southern embankment, and not along the highest portions of the embankment; a clarifying comment to that effect would seem appropriate. Furthermore, while the 2009 Geosyntec report, referenced by GZA, did state that the flattest sections of the embankment were 2.3H:1V, this was a condition that existed in 2009 and not when the GZA inspection was done. The maintenance work done in 2010, and prior to the GZA inspection, changed the flattest section to 2.5:1H:1 V. Since the draft GZA report uses the present tense when it states that "...the embankment has a slope ranging from approximately...to 2.3H:1V, it does not factually describe the flattest slope that existed at the time of the 9/23/2010 inspection. The draft report should therefore both 1.) change the maximum

slope from 1:5H:1V to 1:8H to 1:V and 2.) and describe how the flattest slopes changed from 2:3H:1V to 2:5H:1V during 2010.

The above slopes are obtained by dividing the overall width of any given length of the embankment by the associated overall height. As GZA has noted elsewhere in the draft, locally steeper slopes, associated with surficial sloughs and only occurring for a few foot distance, are being corrected by the ongoing dike maintenance.

Page 7, section 1.2.9: The Bottom Ash Stormwater Pond is improperly rated as a “Low Hazard Potential”. According to the rating procedure provided in the Appendix, the Pond should instead be given a “Less than Low Hazard Potential” for the following reasons.

The dikes forming two of the sides of the pond are only retaining, on average, an approximate height of 3 feet of water. The height of water behind the dike, relative to Lake Erie is provided as an average, because the elevation of Lake Erie fluctuates slightly. The approximate acreage of open water in the Bottom Ash Stormwater Pond is 50 acres, consequently, even in the improbable event of a breach of the massively armored dike (the dike is armored with rip rap to protect it against wind and storm damage), only about 150 acre- feet or about 50 million gallons of water would be released to the plant’s cooling canal. Over 1,000 million (one billion) gallons of cooling water from the power plant are discharged through this canal every day and an incremental flow of 50 million gallons would indeed be inconsequential.

Additionally, the fill in the pond is neither high, nor close to the waters edge and is composed largely of granular bottom ash. GZA remarked during their site tour of the Bottom Ash Stormwater Pond that even if the dike failed, there would be no offsite movement of pond sediment.

Considering the above, there would be neither a water nor solids related impact from loss of the bottom ash dike. Accordingly, Detroit Edison suggests that this pond should be rated as “Less than Low Hazard Potential”.

Page 7, Section 1.3.1: The drainage area for the Bottom Ash Stormwater Pond should be changed from the draft’s 1200 acres to the actual 500 acres. While the draft report correctly cited the “Welcome to Detroit Edison’s Monroe Power Plant” pamphlet as stating that the entire plant occupies 1200 acres; a portion of this 1200 acres includes the 400 acre fly ash pond, which does not drain to the Bottom Ash Stormwater Pond, as well as other areas south and west of the main power plant block that drain elsewhere.

Page 8, Section 1.3.2: Detroit Edison recommends that the phrase “Is approximately bordered” may be a better choice of words than “is enclosed” to describe the relationship of the Fly Ash Basin to I-75, Plum Creek and Lake Erie. None of these features are next to the basin. On all sides of the basin, Detroit Edison owns hundreds of feet of additional land between the toe of the

Mr. Stephen Hoffman
March 4, 2011
Page 3

dike and these geographic features. None of these features “enclose” the basin or form any sort of physical wall or barrier.

Page 11, Section 1.3.8: After the language “According to DTE, no monitoring wells, piezometers, surface monuments, or slope indicators exist or are required at the Bottom Ash Stormwater Pond” please add “because the underlying aquifer has artesian groundwater flow, preventing a discharge to groundwater from the basin and because the basin dike is less than the 6 feet in height and exempt from state regulation”. These additional statements, offered at the time of the GZA September 23rd, 2010 inspection, provide both important site specific information and the basis for the company’s beliefs. Without this information, the uninformed reader might wrongly conclude that Detroit Edison did not have a basis for making its informed decision.

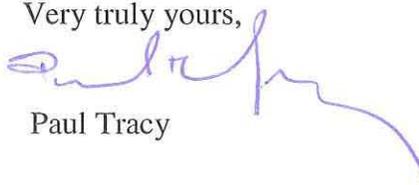
Page 18, Section 3.1: Detroit Edison contends that the statement that “No deficiencies were observed at the Bottom Ash Stormwater Pond ...with the exception of the large tree growth...” is incorrectly considered a deficiency. The following sentence of the draft GZA report correctly states: “However, the height to width ratio of this embankment is small and this vegetation helps protect the impoundment from erosion damage caused by wind and wave action”. These trees also have aesthetic value. Detroit Edison suspects that neither GZA nor EPA actually considered the presence of these trees to be a deficiency, but a literal reading of the report may reach that conclusion. Agency and contractor intent could be misinterpreted by some readers, unless this section of the report is revised. The presence of the trees on the Bottom Ash Stormwater Pond should not be identified as a deficiency.

ADDITIONAL STUDIES AND MAINTENANCE PERFORMED SINCE THE 9/23/2010 GZA REPORT

Detroit Edison has already implemented most of the GZA recommendations and otherwise further improved the design and operation of the basin. Rather than describe those activities now, Detroit Edison will more formally describe all of these efforts when it provides EPA with its response to the Recommendations that will be contained in the final report.

In closing, the Detroit Edison Company again appreciates this opportunity to review the draft report and looks forward to offering its formal response to the recommendations that will be contained in the final report.

Very truly yours,

A handwritten signature in blue ink, appearing to read "Paul Tracy", is written over the typed name.

Paul Tracy

Mr. Stephen Hoffman
March 4, 2011
Page 4

cc: Dennis Leonard
Michael Solo