



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

December 20, 2013

Ms. Gwendolyn Hooten
Fernald Site Mgr
DOE-LM-20.1
10995 Hamilton Cleves Hwy
Harrison Ohio 45030

**RE: DRAFT COMMENTS – OPERATIONAL DESIGN ADJUSTMENTS-1, WSA
PHASE-II GROUNDWATER REMEDIATION DESIGN, FERNALD PRESERVE;
OCTOBER 2013**

Ms. Powell:

Ohio EPA has reviewed Fernald Preserve's "Operational Design Adjustment – 1, WSA Phase-II Groundwater Remediation Design", received on October 31, 2013. Ohio EPA comments are enclosed.

If you have any questions, please contact me at (937) 285-6466.

Sincerely,

A handwritten signature in black ink, appearing to read "T. A. Schneider".

Thomas A. Schneider
Fernald Project Mgr
Division of Environmental Response and Revitalization
Federal Facilities Section

TS/kb

ec: Tim Fischer, US EPA
Bill Hertel, Stoller Corp.

**OHIO EPA COMMENTS ON THE OPERATIONAL DESIGN
ADJUSTMENTS-1, WSA PHASE II-GROUNDWATER
REMEDATION DESIGN, FERNALD PRESERVE
OCTOBER 2013**

General Comments:

1. Commenting Organization: Ohio EPA

Section: General

Comment: Please add an anticipated timeframe to general statements in the Executive Summary, the Introduction, the Summary, and elsewhere that proposed pumping modifications will "result in a remedy that meets cleanup standards sooner..."

2. Commenting Organization: Ohio EPA

Section: General

Comment: According to the proposal (Executive Summary, the Introduction, the Modified Baseline Alternative section, and the Summary), pumping saved through shutdown of WSA well EW-28A and South Field extraction wells EW-31 and EW-32 will be reallocated to the "southern portion of the South Field." In the proposal discussion please identify the locations of the three proposed wells, as specified in Appendix 5.0 and depicted in Figure A-22. Please modify the proposal to clarify that wells are proposed not only in the southern portion of the South Field (wells IW-10 and IW-11), but also in the South Plume (well KN-1).

Comments:

3. Commenting Organization: Ohio EPA

Section: Section 5.0 Page: 17

Comment: Please add discussion addressing how uranium cleanup of the South Plume underlying Wiley Road will be achieved, despite an apparent lack of ten-year capture zone interception under both current and Modified Baseline Alternative pumping conditions. Appendix Section A.3.2.1.2 notes that the latest Five-Year Review Report (2011) stated that extraction system changes might be needed to address this stagnation zone. As shown in Modified Baseline Alternative Figures 4 and 5, no ten-year particle traces for the "2012 to South Plume Clean" time period intercept the Wiley Road area.

4. Commenting Organization: Ohio EPA

Section:

Comment: Please provide explanation as to why the Wiley Road stagnation zone area will not be intercepted under the Modified Baseline Alternative (Figures 4 and 5). With an additional 700 gpm of pumping proposed amongst three new wells to be located in the southern portion of the South Field and the South Plume, and with a proposed pumping increase at South Plume extraction wells RW-6 and RW-7, the South Plume capture area would be expected to increase.

5. Commenting Organization: Ohio EPA

Section:

Comment: Please clarify why the Wiley Road stagnation area referenced in this proposal is not depicted in the Site Environmental Report (see Figure A.3-5, Appendix A.3, 2012). According to the SER, the entirety of the uranium plume is intercepted under current pumping conditions, including the Wiley Road stagnation area.

6. Commenting Organization: Ohio EPA

Section: 5.1 Page: 18

Comment: Please clarify the apparent discrepancy between predicted timeframes for South Plume cleanup under the Modified Baseline Alternative. According to the second paragraph, cleanup will be achieved in 9 years. However, according to the table at the top of the page, the South Plume cleanup date is year 2020, which would equate to 6 years presuming start-up beginning in 2014.

7. Commenting Organization: Ohio EPA

Section: 5.1 Page: 29

Comment: This section states changes to the pumping would be discussed with the agencies. Ohio EPA believes this type of change will require review and approval by the agencies not just discussion.

8. Commenting Organization: Ohio EPA

Section: 5.1 Page: 29

Comment: The potential uranium discharge concentrations and mass are closer to the limits than they have been in a number of years. It will be essential to have the treatment system operational to make sure limits are not exceeded. Ohio EPA believes it may be oversimplifying to suggest no or limited treatment will be needed.

9. Commenting Organization: Ohio EPA

Section: 5.1 Page: 29

Comment: In order to track progress of the Modified Baseline Alternative, Ohio EPA recommends the proposal discussion be modified to include provisions for reporting at least three measures of success annually as follows: 1) predicted average annual uranium mass removal as shown in Appendix Table A-1; 2) predicted average annual uranium discharge concentration; and 3) annually measured capture zone expanse. Ohio EPA recommends these measures be compared to predicted goals and reported annually for each year of system operation.

10. Commenting Organization: Ohio EPA

Section: 5.2 Page: 30

Comment: The second bullet suggests the proposed alternative will clean up the South Field approximately 8 years earlier however the table on page 18 suggest no more than 1 year will be saved in any project area over the baseline. Please clarify this discrepancy.

11. Commenting Organization: Ohio EPA

Section: 6.0 Page: 30

Comment: Ohio EPA disagrees with the third bullet and believes it is inappropriate to contemplate MNA for the WSA plume. Additional characterization and modeling of the plume and its source are necessary as well as evaluation of active remediation options prior to any consideration of MNA.

12. Commenting Organization: Ohio EPA

Section: 6.3 Page: 32

Comment: A typographical error appears to exist in the last sentence of the first paragraph of page 32. Ohio EPA recommends the words "lower" and "higher", in relation to the discussion of modeled water levels, be reversed to state as follows: "higher water levels (resulting in potentially failing certification due to concentration rebound when the pumping stops) and lower water levels (with the potential in some cases for pulling uranium into deeper portions of the aquifer)."