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March 31, 2014

Task Order LM00-502
Control Number 14-0476

U.S. Department of Energy
Office of Legacy Management
ATTN: Gwen Hooten
Site Manager
2597 Legacy Way
Grand Junction, CO 81503

SUBJECT: Contract No. DE-AM01-07LM00060, The S.M. Stoller Corporation, a wholly owned subsidiary of Huntington Ingalls Industries (Stoller)
Transmittal of Responses to Ohio Environmental Protection Agency Comments on the Operational Design Adjustments-1 WSA Phase-II Groundwater Remediation Design, Fernald Preserve, October 2013 and Revised Document

REFERENCE: 1) Task Order LM00-502-06-506 ODA CERCLA/RCRA Fernald, Ohio, Site
2) Letter, T. Schneider to G. Hooten, "Draft Comments – Operational Design Adjustments-1, WSA Phase-II Groundwater Remediation Design, Fernald Preserve, October 2013", dated December 20, 2013

Dear Ms. Hooten:

Enclosed for your review and approval are responses to Ohio Environmental Protection Agency (Ohio EPA) comments on the Operational Design Adjustments-1 WSA Phase-II Groundwater Remediation Design, Fernald Preserve, October 2013 and a revised document that incorporates the comment responses. Upon your approval, both documents should be forwarded to U.S. EPA and Ohio EPA for their review and approval.

The enclosed documents were developed through a series of informal emails and meetings with Ohio EPA between January 16 and February 28, 2014.

Please call me at (513) 648-3894 if you have any questions.

Sincerely,

William A. Hertel
Stoller Site Manager

WAH/KAB:dsm

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Ms. Gwen Hooten
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Enclosures

cc: (electronic)
Ken Broberg, Stoller
rc-ohio
File: FER 115.02.05(A)
Administrative Records (thru B. Irvine)

**Responses to Ohio EPA Comments on the
Operational Design Adjustments-1, WSA Phase II-Groundwater Remediation
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..."

Response: The Executive Summary, Introduction, and the Summary have been revised as requested, and the report is being re-issued as final.

Action: As stated in the response.

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).

Response: The report has been revised as requested. Figures 1 and 3 identify the three wells proposed for shutdown. Table 2 identifies pumping changes. The report is being re-issued as final.

Action: As stated in the response.

Specific 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.

Response: The requested discussion has been added to Section 5.1. Water level contours were added to Figures 4 and 5 to aid the discussion. The report is being re-issued as final.

Action: As stated in the response.

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.

Response: This comment is similar to Comment 3. Please see response to Comment 3.

Action: Please see response to Comment 3..

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.

Response: This comment is similar to Comment 3. Please see response to Comment 3.

Action: Please see action to Comment 3.

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.

Response: As explained on the bottom of page 10; the operational adjustments recommended in this report were modeled as beginning in 2012. Therefore, model-predicted cleanup dates are based on the 2012 start date. If the operational adjustments are implemented, completion dates will need to be

adjusted to take into consideration the actual start date. Revisions have been made to Section 5 to clarify timeframes. The report is being re-issued as final.

Action: As stated in the response.

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.

Response: Agree. Text has been revised to read as follows: "Any proposed pumping change that results in a remedy design modification will require review and approval by both EPA and Ohio EPA prior to implementation." The report is being re-issued as final.

Action: As stated in the response.

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.

Response: Agree. DOE has a current commitment to maintain a treatment capacity of 500 to 600 gpm. This treatment capacity is anticipated to be more than adequate to address any treatment needs created by adopting the Modified Baseline Alternative pumping rates. Also, please note that numerous years of operational experience and familiarity with the Testpump spreadsheet were factored into the conclusion that little or no treatment will be required in order to meet discharge limits.

DOE anticipates additional discussions with EPA and Ohio EPA regarding wastewater treatment will be occurring in the next year or two as the current facility (CAWWT) was only intended to operate until ~2012. The age and condition of CAWWT are such that DOE intends to complete condition assessment and alternatives analysis for the facility in the next year. DOE will keep the EPA and Ohio EPA informed regarding the condition assessment /alternatives analysis and will seek EPA/Ohio EPA input and approval regarding any changes to the currently agreed to treatment capacity of 500 to 600 gpm.

Action: As noted in the response

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.

Response: Section 5 has been revised to state that these metrics will be addressed annually. The report is being re-issued as final.

Action: As stated in the response.

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.

Response: The text actually states "will clean up of the **southern** South Field approximately 8 years earlier than predicted under the Baseline Alternative." The table on page 18 only compares overall South Field cleanup between the two alternatives because under the Baseline Alternative the South Field is treated as one area. Under the Modified Baseline Alternative the South Field is treated as two areas; north and south. Revisions have been made to Section 5 to clarify this. The report is being re-issued as final.

Action: As stated in the response.

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 modelling of the plume and its source are necessary as well as evaluation of active remediation options prior to any consideration of MNA.

Response: The intent of the bullet is to propose that MNA be further evaluated. DOE agrees with Ohio EPA that additional characterization and modeling are necessary as well as evaluation of active remediation options in order to have a productive discussion on the potential future use of MNA.

Action: No action required.

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)."

Response: Section 6.3 has been revised to address this comment. The report is being re-issued as final.

Action: As stated in the response.