

3737

COMMENTS MAWS PLAN

09/04/92



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George V. Voinovich
Governor

September 4, 1992

RE: COMMENTS
MAWS PLAN

Mr. Jack R. Craig
Project Manager
U.S. DOE FEMP
P.O. Box 398705
Cincinnati, Ohio 45239

Dear Mr. Craig:

Listed below are Ohio EPA's comments on the Minimum Additive Waste Stabilization (MAWS) Regulatory Compliance Plan. Ohio EPA agrees that the goals of this program, waste stabilization and volume reduction are important for future remediation. However, additional work will be needed by both our staffs to resolve the difficult RCRA/CERCLA integration issues raised in this document.

GENERAL COMMENTS

1. Given the scope of remediation activity under consideration for this site, the concept of waste stabilization and volume obviously has merit. Data generated from such a bench-scale project could prove valuable to the Fernald site specifically; however, its value to mixed waste treatment and disposal issues in general is questionable.
2. MAWS proposes to mix "clean" (i.e., non-RCRA) soils with waste pit sludges as a feed material for the vitrification process. Sludge components for the process are identified as mixed wastes, and hazardous waste components of mixed waste are subject to regulation under RCRA. MAWS therefore represents a proposal for on-site treatment of hazardous waste.

This document does not contain a clear proposal for compliance with RCRA issues, most importantly, RCRA permit requirements. Since the State maintains RCRA program authority, the MAWS program must address mechanisms to comply with OEPA hazardous waste requirements. In addition, there is specific language contained within the Consent Decree (State of Ohio v. DOE) which has bearing on a project of this nature. MAWS neither acknowledges nor addresses Consent Decree issues.

3. The identification and resolution of RCRA permit issues would likely be time consuming. MAWS contains some discussion of delisting (Pit 5 wastes), and issuance of a RD&D permit as possible mechanisms to cope with the central RCRA issue. RD&D permits are U.S. EPA mechanisms and may not be appropriate regarding State permit requirements. Alternatively, DOE could investigate the following areas:

Mr. Jack R. Craig
September 4, 1992
Page 2



3737

- a. Utilize the CERCLA exclusion and designate RCRA activity as ARARs.
 - b. An exemption under OAC 3745-50-31 pursuant to ORC 3734.02(G). (OEPA may be very reluctant to issue such an exemption and/or the level of detail required may be prohibitive. The level of detail for exemption, permit, and ARARs should actually be similar in nature.)
 - c. A treatability exclusion under OAC 3745-51-04(F).
4. In "Overview of the MAWS Program" (page 5), the document states, "By implementing the MAWS Program as part of the RI/FS RD/RA processes under CERCLA and using mixed waste as well as low-level radioactive waste for the vitrification "feed", DOE will be developing an innovative and experimental hazardous waste treatment technology." MAWS however, is clearly not designed as a process to treat hazardous waste, and OEPA does not view the program in this context.

MAWS states ("Handling and Storage of the Vitrified Waste," page 21) "If the MAWS process is successful in Phase I and the initial part of Phase 2, the process will be used to develop formulas and processes for other waste pits and FEMP wastes during the rest of Phase 2. Most of these wastes are non-RCRA, and it is important to maintain their non-RCRA identity"

In light of this statement and the stated concepts that MAWS is designed to demonstrate (page 6), it is not clear why RCRA wastes are considered for use as feedstock in the initial phases. MAWS makes a point of using non-RCRA soils. Then why not also use non-RCRA sludges in the initial bench scale project?

5. MAWS (pages. 12, 14, 20) appears to indicate that TCLP analyses satisfy RCRA characterization requirements. TCLP analysis alone will not necessarily fulfill characterization requirements when listed hazardous wastes are involved.
6. It is essential that the MAWS Bench Scale Vit. WP contain significant detail on: (1) the method of waste removal from pit 5, (2) sampling of input wastes and output glass, water, air and soil, and (3) compliance with the substantive requirements of otherwise required permits. This work plan must be completed as a CERCLA document requiring approval by the EPAs. Without full inclusion into the CERCLA process, DOE will not be able to use the CERCLA exclusion from permitting requirements.

Mr. Jack R. Craig
September 4, 1992
Page 3

SPECIFIC COMMENTS

1. Introduction, page 1: Please clarify for the reader the meaning of such designations as "[A, 21]" and "[C, 2]."
2. Introduction, page 2, 3rd paragraph: Correct sentence to read, "the RI/FS is divided into five operable units . . ."
3. Introduction, page 2, 4th paragraph: This is a very cursory review of operable unit wastes. A reference to a more detailed report such as the SWCR should be made.
4. Table 3, page 4: Pits 1 and 2 are not the only ones to contain 55 gallon drums. Pit 4 contains drums; see page 6 of this MAWS document.
5. Overview, page 5, 3rd paragraph: The designation of <35 pCi/g soils as clean must be followed by a statement which clarifies the fact that this is potentially higher than the final cleanup level. The use of 35 pCi/g as the cut off for this treatability study will still leave questions about its effectiveness for a final remedy. DOE must pursue a determination of the lowest achievable concentration in washed soils. The determination of this lowest achievable level is essential in the justification of this effort as a treatability study.
6. Overview, page 6, last paragraph: The second sentence is confusing and needs to be clarified.
7. Process, page 7, 3rd paragraph: Has the "Treatability Study Work Plan - Remedy Design Laboratory Studies Vol. 1, Vitrification" been submitted to the EPA as suggested in this paragraph. If so, Ohio EPA has not yet received a copy.
8. Soil Washing, page 10, 2nd paragraph:
 - a. Discharge soils need to be fully characterized to determine the effectiveness of the soil washing as well as any contamination which may result from the process. Laboratory analysis is essential to supporting the process screening and must be detailed within the work plan.
 - b. The free release of soils below 35 pCi/g for use on the site is not advisable knowing the final remedial goal may be below this number.
9. Water Treatment, page 11, 1st paragraph: Effluent from the water treatment systems must be analyzed for multiple contaminants due to the various waste streams entering it. Contaminants other than uranium may

Mr. Jack R. Craig
September 4, 1992
Page 4

be present in soils and transfer to the water during soil washing, etc. In order to produce an effective and useful treatability study, it is necessary to know specifically what goes into the system and what comes out in the various pathways.

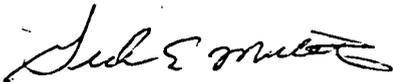
10. Vitrification System, page 12, 6th paragraph: Regardless of whether the vitrified Pit 5 waste passes TCLP, which it might do prior to vitrification, it is still a hazardous waste and will need to be stored as such.
11. Off-Gas, page 13, 1st paragraph: The work plan should list specific ARARs and the discharge requirements of those ARARs. Additionally, sampling for constituents other than those required by the ARARs is needed to ensure wastes are being treated and not just changing media. Emissions sampling is just another component in the mass balance equation of determining where the specific contaminants go as a result of the treatment process.
12. Monitoring of Discharges, page 14: As stated in previous comments, for this to be a useful treatability study, it is necessary for DOE to fully characterize wastes being treated and the products of the treatment system. This sampling will answer questions of efficiency and the transfer of contaminants between media.
13. Regulatory Requirements, page 14: In order for this process to be approved as a treatability study in time for a January start up, DOE must submit the work plan now. As stated previously, if DOE intends to use the CERCLA exclusions, then it must meet the requirements of regulatory approval prior to initiation.
14. Wastewater Cleaning, page 23, bullet 4:
 - (a) Remove references to the FEMP NPDES limits from this bullet. Radiation doses and radioactive discharges are not regulated under the NPDES permit. This bullet suggests the State of Ohio has a means of limiting the amount of radionuclides DOE discharges, which is clearly not the case.
 - (b) DOE should note that it must maintain the 1,700 lbs. uranium yearly discharge agreed to under the South Plume Removal Action.
15. Asbestos Removal, page 26: This paragraph should reference Removal Action #26, Asbestos Program Procedures.
16. Contamination Levels, page 26, bullet 22: A diagram showing the location of the pit and herculite within Plant 9 as well as the location of MAWS equipment would be helpful.

3737

Mr. Jack R. Craig
September 4, 1992
Page 5

If you have any questions about these comments, please contact Tom Schneider or me.

Sincerely,



Graham E. Mitchell
Project Manager

GEM/klj

cc: Jennifer Kwasniewski, DERR, CO
Tom Schneider, DERR, SWDO
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