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**DISAPPROVAL OF REMOVAL ACTION 22 - WASTE
PIT AREA CONTAINMENT IMPROVEMENTS WORK
PLAN**

10-01-92



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

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REPLY TO THE ATTENTION OF:

Mr. Jack R. Craig
United States Department of Energy
Feed Materials Production Center
P.O. Box 398705
Cincinnati, Ohio 45239-8705

HRE-8J

RE: Disapproval of Removal Action
22-Waste Pit Area Containment
Improvements Work Plan

Dear Mr. Craig:

The United States Environmental Protection Agency (U.S. EPA) has completed its review of the Removal Action Number 22 Work Plan, Waste Pit Area Containment Improvements. This Work Plan details activities to better contain contaminated soil areas, and prevent erosion in the Waste Pit Area. This Work Plan contains the essential components of a Removal Action Work Plan, however, some modifications must be incorporated.

Therefore, U.S. EPA disapproves the Work Plan pending incorporation of the enclosed comments.

Please contact me at (312/FTS) 886-0992 if you have any questions.

Sincerely,

James A. Saric
Remedial Project Manager

Enclosure

cc: Graham Mitchell, OEPA-SWDO
Pat Whitfield, U.S. DOE-HDQ
Dennis Carr, WMCO

WASTE PIT AREA CONTAINMENT IMPROVEMENT
REMOVAL ACTION NO. 22 WORK PLAN

GENERAL TECHNICAL COMMENTS

1. The removal action (RA) work plan has an attached addended removal site evaluation (RSE) report. The RSE indicates that the primary contaminants associated with the site area are radionuclides. DOE may generate substantial contaminated soil and debris during this RA. However, the RA work plan requires only nonradionuclide analyses for determining the disposition of soil and debris. Also, nonradionuclide parameters in the work plan include some Resource Conservation and Recovery Act (RCRA) metals, volatile organic compounds (VOC), and non-RCRA polychlorinated biphenyls (PCB). PRC notes that the list of RCRA parameters does not include all parameters necessary to identify whether a waste is characteristic. PRC believes that two DOE must address: (1) DOE should include radionuclides in the list of analyses because they are the contaminants of concern associated with this RA; (2) DOE should provide justification for its list of nonradionuclide analytes, which includes an incomplete list of RCRA parameters.

2. DOE has provided a schedule for implementation of the RA in Section 4.0. However, the schedule does not indicate a submittal date for a final report and does not identify what the final report will include. The schedule should identify the delivery date of the final report and identify the components of the report. At a minimum the report should include the following: (1) an evaluation of the effectiveness of the RA in meeting RA work plan and RSE objectives; (2) a discussion of the findings of site radiation surveys and analytical data, (3) a discussion of the volume of contaminated soil and debris and its disposition, (4) any data gaps or additional required activities identified as a result of the RA activities, and (5) conclusions including anticipated future RA activities, if any.

US DOE Fernald Environmental Management Project

Waste Pit Area Containment Improvement
Removal Action 22 Work Plan
Revision No. 0
Dated August 1992

Comments by
US EPA Region 5 Radiation Section

GENERAL COMMENTS

1. Health physics concerns are not adequately addressed. Since information on the extent and type of radiological contamination is available from historical records and past studies of the waste pit area, such results should be included in the work plan. This information can then be used to anticipate possible health radiological hazards, both to workers and to the general public, which could arise from implementation of the work plan activities. It is important to assess these hazards early in the work plan process; the hazards are not only important in formulation of the Health and Safety Plan (which is not required as part of the work plan), but also because the design process must take into account the hazards so that construction activities implementation minimizes and contains the health and safety hazards.

Fugitive emission were identified as a possible result of construction activities only in Section 3.3.2 (Implementation of the Protection of Areas of Stressed Vegetation). However, it seems likely that regrading of the ditches and improvement of roads could also lead to considerable fugitive emissions. Details on the extent of such hazards, as well as efforts which will be taken to minimize emissions, should be addressed in all sections on implementation of the work plan.

2. Although it may not be necessary to provide design details of the removal action (RA) activities, the performance criteria which will be used to 1) design construction activities, and 2) evaluate the effectiveness of the RA, should be developed at this point and included in the work plan. Without having such information, it is difficult to determine whether the RA will adequately fulfill its objectives.

SPECIFIC COMMENTS

1. Section 2.1

Page 2-1, paragraph 2

Although it is stated in Section 3.1.1 (p. 3-1) that the road between Waste Pits 5 and 3 will be improved, this information is not included here in the description of areas of concern. Please correct this discrepancy.

2. Section 3.1.2

Page 3-2, paragraph 1

A figure should be included in the document showing the three construction zones that will be established during implementation activities to upgrade the drainage ditches.

3. Section 3.1.2

Page 3-6, paragraph 1

It should be specified what steps will be taken to ensure that excavation is kept to a minimum during ditch improvement.

4. Section 3.1.2

The control of fugitive emissions and surface water erosion should be addressed under implementation of the drainage ditch regrading, since both seem likely to result from construction activities to contain contaminated soils. If these issues are not considered to be of concern, then the reason for such a decision should be supported and justified.

The description of soil containment implementation should also contain information on the criteria which will be used to determine the effectiveness of this part of the RA. Performance criteria for judging RA effectiveness should be developed and described here, since these criteria directly affect the design and implementation of field activities. In addition, a schedule should be generated for evaluating continuing effectiveness of the regrading.

5. Section 3.2.2

Page 3-7, paragraph 4

More specific details should be provided on what is meant by "as needed". Specific criteria should be developed for determining whether the mud has been adequately stabilized or the addition of more stabilizing material is needed.

6. Section 3.2.2

The control of fugitive emissions and surface water erosion should be addressed under implementation of the Pit 4 Berm correction, since both seem likely to result from construction activities to stabilize the berm. If these issues are not considered to be of concern, then the reason for such a decision should be supported and justified.

The description of berm stabilization implementation should also contain information on the criteria which will be used to determine the effectiveness of this part of the RA. Performance criteria for judging RA effectiveness should be developed and described here, since these criteria directly affect the design and implementation of field activities. In addition, a schedule should be generated for evaluating continuing effectiveness of the stabilization and regrading.

7. Section 3.3.2

Page 3-8, point number 4

More detail should be provided on the methods which will be used to identify sources of fill soil and topsoil. For instance, it should be stated whether or not off-site sources for material will be considered, if laboratory tests will be used to confirm the soil characteristics, etc.

8. Section 3.3.2

Page 3-10, paragraph 4

More detail should be provided on what type of surface water control will be provided to minimize erosion. Even if interim erosion control measures are implemented during the RA, it seems likely that construction equipment and activities could cause greater than average amounts of erosion. It should be clarified what efforts will be made to trap and contain the runoff since it could contain large amounts of contaminated soil.

9. Section 3.3.2

Page 3-11, paragraph 2

Performance criteria for the quality of the revegetation covering should be developed and included in the work plan since they directly affect the design and implementation of RA activities. The frequency of quality control tests should also be specified here.

10. Section 4.1

Page 4-1, paragraph 2

In view of the imminent change in contractor at FEMP, which falls within the 44 week timeline for completion of this RA, please clarify whether WEMCO will continue to be responsible for implementation of this RA Work Plan even after a new contractor is on site at FEMP. In addition, clarify whether the subcontractors cited here will still be working at the site.

11. Section 7.1

Page 7-1, paragraph 2

It is stated that air monitoring will be used to establish the effectiveness of the RA. Results of air monitoring should also be used during RA implementation to ensure that control measures (for fugitive emission, for example) are performing adequately.

12. Section 7.2

Page 7-1, paragraph 3

It should be specified what guidelines will be used to determine if roads are radiologically contaminated.

13. Section 7.4

Page 7-4, paragraph 2

As noted above under General Comments (comment #1), information on the extent and type of contamination should be included in the RA work plan to ensure that RA construction activities are designed to adequately address health concerns and are sufficient to meet the

objectives of the RA.

14. Section 7.4

Page 7-5, Table 7-2

Please justify why radionuclides are not included in the list of hazardous constituents for analysis of excess material.