4556

US EPA COMMENT ON THE PO-32 DISMANTLING 7 REMOVAL ACTION 19 WORK PLAN, REVISION 0, FEBRUARY 1993

06/29/93

DOE-FN/EPA
8 14
RESPONSES

US EPA COMMENTS on the PO-32 Dismantling Plant 7 Removal Action 19 Work Plan, Revision 0, February 1993

4556-

The Removal Action Work Plan, Rev. 0, for Removal Action No. 19: Plant 7 Dismantling was reviewed. General and specific comments on the work plan follow.

GENERAL COMMENTS:

1. *The work plan provides a general description of the Plant 7 dismantling activities. However, control, collection, and sampling of wastewater generated from the decontamination of the Plant 7 materials are not fully described. The sampling and analytical procedures for Plant 7 wastewater and Plant 8 sump water should be described, or existing procedures should be referenced, if appropriate.*

Comment Resolution:

Control of the plant 7 wastewater. The building floor, including sump 4'-9" south of Column line B, will be sealed with a coating. Outside of the building, a curb will be constructed several feet from the building exterior wall, surrounding the building, for containment of any water which leaks through transite openings during washdown. Holes in the interior transite due to damage or penetrations will be patched sealed to the best extent to prevent water loss.

Collection of the decon water will be with wet/dry vacuums to the greatest extent so that gross particulates can be captured. Wash water that seeps to the lower floor will be collected in the elevator shaft pit and/or sump at Col. B4. A sump pump will be used to pump the water to a holding tank placed outside the building. Water collected in vacuums will be transported to the holding tank.

The wastewater in the holding tank will be sampled and analyzed in accordance with the SCQ procedures prior to being transported to the General Sump or Plant 8 Sump, pending analytical results. The decontamination water will initially be sampled for pH, lead, copper, nickel, chromium and uranium.

General Sump operation is described in operations procedure SOP 43-C-701. Sampling results will determine whether the water goes to Plant 8 sump for vacuum filtration prior to being discharged to General Sump. Water sent to General Sump can also be directed to Plant 8 as part of the normal operation of the facility. The ppm limits for discharges from the General Sump are based on and in compliance with flows of the NPDES effluent limits. Ref: PL-3007, NPDES Permit Compliance Plan.

0001

US EPA COMMENTS on the PO-32 Dismantling Plant 7 Removal Action 19 Work Plan, Revision 0, February 1993

ACTION:

Will revise Sections 6.2 and 9.2 of the RAWP to include wastewater/washwater control.

2. *The sampling and analytical procedures to be used for waste characterization of Phase I wastes should be referenced.*

Comment Resolution:

Phase I is being accomplished under the Safe Shutdown program which utilizes in-place Material Evaluation Forms (MEFs) to make the RCRA determination. Any sampling will be done in accordance with the EPA approved SCQ.

ACTION:

RAWP will be revised to reference SCQ procedures.

3. *The final disposition of containerized material generated from this removal action should be described. In particular, off-site shipment destinations and schedules should be included in the work plan.*

Comment Resolution:

Section 6.5 will be revised to include disposition of materials (including miscellaneous steel, piping, ductwork, etc.) which will occur within 90 days of exiting the control zone, as well as identifying NTS as the disposal facility for most of the anticipated waste streams. The structural steel and decking will be segregared for beneficial reuse. In addition, some of the steel, transite and concrete has been identified for use in the OU-3 treatability studies. The asbestos containing material will go into on-site storage pending identification of final disposition.

ACTION:

Section 6.5 will be revised as described above.

US EPA COMMENTS on the PO-32 Dismantling Plant 7 Removal Action 19 Work Plan, Revision 0, February 1993

SPECIFIC COMMENTS:

1. *Section 6.4.1, Page 6-5, Item 2: The work plan should explain in more detail how particulate and water emissions beyond the work area will be controlled.*

Comment Resolution:

Performance based design specifications require the subcontractor to propose method for control of particulate and water emissions beyond the work area. DOE will review subcontractors proposed methods of control.

ACTION:

See Item #1 - General Comments - Control measures are described in Section 6.2.

2. *Section 6.4.2, Page 6-6, Item 1: The work plan should explain in more detail how decontamination water will be controlled and collected for treatment in the Plant 8 sump and FEMP biodenitrification system.*

Comment Resolution:

See Item #1 - General Comments.

ACTION:

Will revise RAWP to include waste/wash water control. Control measures are described in Section 6.2.

1. *Section 6.1, Page 6-1, Line #19, Code c: - Please provide additional information on the "sealing" of the foundation and slab, its purpose and intended result.*

Comment Resolution:

A sealant will be applied prior to the water wash which will prevent contaminants from seeping into the concrete slab during washdown.

US EPA COMMENTS on the PO-32 Dismantling Plant 7 Removal Action 19 Work Plan, Revision 0, February 1993

ACTION:

Section will be revised as identified in the response.

2. *Section 6.2, Page 6-2, Line #12, Code C:*

Please explain the measures that will be in place to ensure that negative pressure is maintained within the building for the duration of the D&D process.

Comment Resolution:

Plant 7 will be subjected to a variety of controls measures to prevent fugitive emissions. During Phase I operations, major cracks and holes in Plant 7 will be sealed. HEPA filtered vacuums will collect loose contamination from all accessible surfaces.

Throughout the plant 7 D&D, direct air flow will be utilized as well as setting up isolation zones, which will be under negative pressure, for the large scale removal of asbestos containing material. Any exhausted air from Plant 7 will pass through a HEPA filtration system prior to discharge.

ACTION:

Section 6.2 will be revised to reflect the identified controls.

3. *Section 6.3, Page 6-3, Line #16, Code M:*

It seems that the Phase III activities required for the disassembly of Plant 7, which involves the removal of the buildings's exterior skin and structure, should not commence until Phase One and Phase Two activities are complete. It also seems that the cessation of negative pressure conditions and the removal and decontamination of the HEPA ventilation system, a Phase II activity, should not commence until all other Phase I and II activities are complete. For the purpose of contaminant control during this removal action, this work plan should ensure that the activities, and the order in which they are performed, minimize the possibility of contaminant release.

US EPA COMMENTS on the PO-32 Dismantling Plant 7 Removal Action 19 Work Plan, Revision 0, February 1993

Comment Resolution:

Phase III activities shall not commence until Phase I and Phase II activities have been completed; however, some overlap could occur between Phase I and Phase II activities.

ACTION:

The work plan will state that Phase III activities can only be implemented once Phases I & II are complete. It will also state that the HEPA filtration equipment can only be removed once all of Phases I and II activities are complete.

4. Section 6.5.3, Page 6-7, Line #29, Code M:

The guidance documents used to determine the release of materials with surface contamination should be included as ARARs for this removal action, and listed in Table 6-4 of this document.

Comment Resolution:

Will comply.

ACTION:

N.R.C. Regulatory Guide 1.86, DOE Order 5400.5, Chapter IV, 40 CFR 192 Subpart B & C, and 10 CFR 834 (58 FR 16281) will be included in Table 6.4.

5. *Section 6.6, Table 6-4, Pages #6-15, Code M:*

The Plant 7 dismantling is considered a modification of a stationary source as defined by 40 CFR 61.15. As such, the effective dose equivalent shall be calculated using the source term derived using Appendix D to Part 61 as input to the computer models described in 40 CFR 61.93. The U.S. EPA Region 5 Radiation Section recommends the use of CAP-88PC for 40 CFR 61 Subpart H computer modeling purposes. In estimating radionuclide emissions as described in Appendix D to Part 61, the radionuclide activities (amounts in curies) present in Plant 7, the multiplication factors dependent upon the radionuclide states, and the emission adjustment factors used should be justified, documented, and attached to the results of the CAP-88 computer model run. The CAP-88 results and documentation supporting emission estimates should then be included as an appendix to this work plan, as well as support the annual radionuclide NESHAP Subpart H report submitted to U.S. EPA.

Comment Resolution:

The Plant 7 demolition is not a modification of a stationary source as defined by 40 CFR 61.15. Section 61.07(c)483 40 CFR 61 (3) of 40 CFR specifies the contents of applications to modify, and calls for an estimation of emissions before and after changes are complete. For Plant 7 demolition, this will be negligible and nonexistent, respectively. Therefore, this demolition does not meet the definition of a modification. As the use of 40 CFR 61 Appendix D is only required for the purpose of evaluating the need to obtain approval to modify/construct, Appendix D is not applicable to this Removal action. We agree that the actual emissions from this activity are subject to NESHAP Subpart H and will be included in the annual compliance demonstration.

ACTION:

Sufficient monitoring will be conducted during all activities associated with the Plant 7 demolition Removal Action so that radionuclide emissions occurring during the activities can be estimated and included in the appropriate NESHAP Subpart H annual report.

6. *Section 12, Page 12-1, Line #6, Code C:*

Please provide two copies of the following document to the U.S. EPA Region 5 Radiation Section: United States Department of Energy, 1992. Radiological Control Manual. Washington: DOE/EH-0256T.

Comment Resolution:

Will comply.

ACTION:

Two copies will be sent forth with the revised RAWP.

OHIO EPA COMMENTS on the PO-32 Dismantling Plant 7 Removal Action 19 Work Plan, Revision 0, February 1993

1. *Section 3, Page 3-1, Line #26, Code c: The use of direct in-place radiological measurements should be implemented until false readings are documented. The potential for false readings should be limited to the east side area adjacent to the 4B warehouse.*

Comment Resolution:

Will Comply.

ACTION:

The sentence will be revised as follows: Direct reading field instruments will be used within Plant 7. If the background interferes with the sampling, then shielded probes will be utilized.

2. Section 3, Page 3-3, Line #14, Code c: What did the empty 5 gallon containers contain? Is there residual material left in the containers?

Comment Resolution:

The empty containers were purchased to hold UF4 but were never used. They were identified as surplus and stored in Plant 7 for a future use.

ACTION:

Will revise RAWP to reflect.

3. *Section 6, Page 6-1, Line #7, Code c: Rephrase the primary purpose of the removal action. Removal actions are not to provide training experience for workers and such. The primary purpose should be to abate conditions as established in 40 CFR 300.415(b)(2)(i) and 40 CFR 300.415(b)(2)(viii)). If it so happens that a great opportunity to gain experience in the matter arises out of it, so much the better.*

Comment Resolution:

The primary purpose will be re-defined.

ACTION:

The primary purpose of this project is to mitigate the actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants, or contaminants.

OHIO EPA COMMENTS on the PO-32 Dismantling Plant 7 Removal Action 19 Work Plan, Revision 0, February 1993

4. *Section 6, Page 6-1, Line #23, Code c: The description of phase one activities leaves the impression that the inventory material will be removed without decontaminating that equipment if necessary. This concern also arises in the detailed description of phase one activities on page 6-3. Any item removed from this building should go through some sort of decon procedures for both rad and asbestos contamination.*

Comment Resolution:

Will comply.

ACTION:

The existing Plant 7 inventory will have loose contamination removed prior to packaging, and then relocated to on-site storage pending final disposition.

5. *Section 6, Page 6-1, Line #37, Code c: "Periodic radiation surveys" is very ambiguous. Since this removal action will serve as a way to gain experience in "removing the potential for contaminant release from plant 7" it should also serve as a way for Health and Safety personnel to gain experience in determining effectiveness of their Health and Safety plan.*

Comment Resolution:

Will comply.

ACTION:

The section will be revised to reflect that radiation surveys will be accomplished prior to leaving the control zone for personnel and equipment.

6. *Section 6.2, Page 6-2, Line #15, Code c: The predetermined levels for asbestos fibers have not been stated. Is it the recommended NIOSH standard of 0.01 f/cc? Industrial Hygiene will monitor the air inside the work place. Is the work place inside or outside of the containment area? Will ambient air monitoring be conducted outside the work zone? Ambient background levels for asbestos should be collected prior tot he start up of any activities to provide levels for comparison. What fiber level will be needed before teardown of the containment occurs? Will a visual inspection of the asbestos containment area be performed prior to final air sampling when a containment is established?*

OHIO EPA COMMENTS on the PO-32 Dismantling Plant 7 Removal Action 19 Work Plan, Revision 0, February 1993

Comment Resolution:

The OSHA Asbestos Construction standard 1926.58 will be used which has an action level of 0.1 fibers/cc (f/cc). Monitoring will be conducted on both the inside and outside the asbestos removal control zone. These zones are located inside Plant 7.

Background ambient air samples will be collected prior to the commencement of asbestos removal activities. The PCM method will be used to verify that 0.1 fibers/cc is met prior to dismantling the containment.

ACTION

Will revise RAWP to reflect.

7. *Section 6.3, Page 6-3, Line #21-30, Code c: Expand in further detail where this material will be moved to, stored or disposed.*

Comment Resolution:

The material will be re-located to another warehouse pending final disposition. Potential locations include Buildings 30, 67 and 68.

ACTION:

Will revise RAWP to reflect.

8. *Section 6.3, Page 6-3, Line #40, Code c: Define significant.*

Comment Resolution:

The sentence will be revised. The duct work will be inspected for accumulated materials, which will be removed and containerized.

ACTION:

Will revise RAWP to reflect.

OHIO EPA COMMENTS on the PO-32 Dismantling Plant 7 Removal Action 19 Work Plan, Revision 0, February 1993

9. *Section 6.3, Page 6-4, Line #7, Code c: HEPA filtration will not prevent the egress of radionuclides if, at a minimum, critical barriers are not in place and a negative atmosphere established and maintained. In this filtration system to serve as a barrier for asbestos fibers also?*

Comment Resolution:

Plant 7 will be subjected to a variety of controls measures to prevent fugitive emissions. During Phase I operations, any major cracks and holes in Plant 7 will be sealed. HEPA filtered vacuums will collect loose contamination from all accessible surfaces.

Once all interior components have been removed under Phase II, the sealant will be applied to the base slab and a high pressure water wash will be utilized. Finally, a fixative will be applied where required to the interior to Plant 7.

Throughout the Plant 7 D&D, direct air flow will be utilized as well as setting up isolation zones, which will be under negative pressure, for the large scale removal of asbestos containing material. In addition, critical barriers will be established for asbestos abatement. Any exhausted air from Plant 7 will pass through a HEPA filtration system prior to discharge.

ACTION:

Section 6.3 will be revised to reflect the identified controls.

10. *Section 6.3, Page 6-4, Line #24, Code c: The use of latex paint is an expensive alternative for sealing the friable asbestos material. There are products specifically designed to encapsulate asbestos material that are more effective, less expensive, easier to apply.*

Comment Resolution:

Various sealants are being investigated through literature searches and communications with sites which have utilized these products.

ACTION:

The sentence will be revised to reflect the above.

OHIO EPA COMMENTS on the PO-32 Dismantling Plant 7 Removal Action 19 Work Plan, Revision 0, February 1993

11. *Section 6.5.3, Page 6-9, Line #Table 6-2, bullet 3, Code c: Provide the referenced Table 2-2. Use the word provided not proved.*

ACTION:

Will correct.

12. *Section 6.6, Page 6-11, Line #15, Code c: The urgency referenced in this statement is understood but not really defined by the document. The point of gaining the experience in eliminating the potential for contamination has been stressed more.*

Comment Resolution:

The statement referenced by this comment relates to the identification and compliance with ARARs for this project. The urgency of the situation and scope of the removal action are two of the criteria that DOE, as the lead agency, is required, under 40 CFR 300.415(i), to consider to determine the practicality of ARAR compliance.

This statement was not meant to circumvent the need and schedule for the removal action. Based on the RSE, this removal action was determined to be non-time critical. As such, ARAR compliance was based on this non-time critical designation. To clarify this point, a statement was added to this section.

DOE recognizes Ohio EPA's desire to expedite completion of this removal action and is committed to taking steps that are necessary to provide for the timely, safe, and effective removal of Plant 7. As previously stated, the primary purpose of the removal was re-defined (see response to OEPA Comment #3). The need to gain appropriate experience is stressed more in the Work Plan since the Work Plan focuses more on the implementation of the removal action (the hours) as opposed to the need and urgency of the situation which was previously established under the RSE. In addition, the experience gained via the removal action will be basis for all future D&D activities.

ACTION:

The following sentence will be added to Section 6.6: "The list of ARARs and associated compliance/implementation strategies were developed based on the non-time critical designation of the removal action (see RSE Section 5 - Appendix A).

13. *Section 7.3, Page 7-2, Line #8, Code c: HEPA filters have an efficiency rate of 99.99%. It is not capable of removing "any" airborne asbestos fiber present as stated.*

ACTION:

The word "any" will be deleted.

14. *Section 7.5, Page 7-2, Line #38, Code c: Revisions to NESHAP sets up categories for ACM. Floor tile is now a category one material and the Regs allow for it to remain in place when a building is being razed provided the material is in good shape and will not become friable during the demolition. This needs to be evaluated further. If the floor tile does not need to be removed, the costs associated with such actions will be dramatically reduced.*

Comment Resolution:

Per 40 CFR 61 Subpart M, Section 61.145(c)(1)(i), the floor tile is a Category I Non Friable Material (Regulated Asbestos-Containing Material (RACM)). Per this statute, the floor tile can remain in the facility as the facility is being razed. However, this material must be treated as an ACM during building razing.

The following criteria shall apply to the Category I Nonfriable RACM (floor tile):

1) The material must be adequately wetted during any cutting or disjoining.

2) The material must be adequately wet until final disposition.

ACTION:

RAWP will be revised to reflect the above.

15. *Section 7.5, Page 7.3, Line #2-12, Code c: The removal of the transite panels may be effectively done using a point source vacuum system. If the fasteners can be removed under this type of system, then better emission controls will be achieved. These techniques will be very applicable to the exterior panels were limited to no containment or filtration will be able to be employed. Point source vacuum system can be easily developed using a HEPA equipped vacuum with a device attached onto the end of the hose such as a PVC Tee fitting. This device can be held against the transite covering the fastener, while a vacuum is being pulled form the side of the tee. Any asbestos fiber or lead dust disturbance will be effectively captured. Use of a point source filtration system will eliminate the need for costly containments; however, the use of critical barriers should be employed were applicable.*

The application techniques of a sealant (encapsulating agent) have not been discussed. How does DOE intend to apply these materials?

Comment Resolution:

The anticipated dismantling technique for the transite panels is unbolting, since the panels are considered non-friable. However, if a panel is cut, a portable HEPA vacuum will be used to control emissions. In addition, a "point source vacuum" will be used during unbolting - (See next page for additional information.)

Performance based designed specifications require the subcontractor to propose the application techniques for the sealant. The DOE will then review these proposed techniques.

ACTION:

The work plan will be revised to reflect the response.

16. *Section 9.2, Page 9-2, Line #7, Code c: Determining that listed wastes do not exist is fine; however, DOE will need to determine if the waste streams exhibit characteristics that will make it a hazardous waste. One can not assume this material will not exhibit characteristic properties (e.g. TCLP, corrosive). In addition, previous submittals from DOE indicate that the lead coverings may be mixed wastes.*

OHIO EPA COMMENTS on the PO-32 Dismantling Plant 7 Removal Action 19 Work Plan, Revision 0, February 1993

Comment Resolution:

Based on process knowledge, the materials in Plant 7 do not exhibit characteristic properties nor are they a listed waste.; There is a concern with lead-based paint exceeding regulatory guidance levels. As a result of this concern, the document within Appendix C identifies the methodology which will be used to determine if the Plant 7 will meet/exceed RCRA levels. During dismantling activities, lead flashing, caps, and sheet lead will be separated and evaluated for the possibility of recycling as identified in Table 6-1, Disposition Summary.

ACTION:

The work plan will be revised to reflect the response.

17. *Section 9-1, Page 9-3, Line #10-14, Code c: The number of grab samplers should be increased to close some of the potential gaps in the sampling areas. Since this will be a new type of project, the over-sampling would ensure that all engineering controls are working. This data can be applied to future projects with certainty of design effectiveness.*

Comment Resolution:

Will comply.

To verify the presence of negligible fugitive air emissions, six High-Volume Grab Samplers will be erected around the perimeter of Plant 7. This action will obtain a representative sample from an unconfined volume of air in the vicinity of the emission source. Emphasis will be placed on positioning the samplers in line with the prevailing winds. Two units will collect samples from the south and west sides for measurements of radionuclide concentrations prior to the winds crossing Plant 7. The remaining four will provide surveillance on the north and east sides of Plant 7. These units shall collect samples prior to the commencement of Removal Action 19 and through out the dismantling process. The preliminary readings shall establish the baseline against which all readings through the removal action shall be compared.

ACTION:

Will revise work plan text to reflect the response.