



Department of Energy

Idaho Operations Office
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May 25, 2011

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Mr. Daryl Koch
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SUBJECT: Addendum to Table 1. of the Action Memorandum for General Decommissioning Activities under the Idaho Cleanup Project (DOE/ID-11293, Revision 1) (EM-FMDP-11-055)

Dear Mr. Faulk and Mr. Koch:

The Idaho Cleanup Project (ICP) requests concurrence from the Department of Environmental Quality (DEQ) and the Environmental Protection Agency (EPA) for inclusion of the Accelerated Retrieval Project (ARP) IV structure (WMF-1615), Mass Detonation Area (MDA), and the Test Area North Radioactive Parts Service and Storage Area (RPSSA) with the list of structures to be decommissioned pursuant to the *Action Memorandum for General Decommissioning Activities under the Idaho Cleanup Project* (DOE/ID-11293, Revision 1, January 2009). This non-time critical removal action (NTCRA) approach is intended to simplify administrative processes for management of these structures and associated wastes generated during decommissioning.

The potential for modifying the scope of the NTCRA subsequent to the signing of the Action Memorandum was addressed during the public review period of the *Engineering Evaluation/Cost Analysis for General Decommissioning Activities under the Idaho Cleanup Project* (DOE/ID-11291, August 2006). This provision to modify the list was memorialized in the Action Memorandum itself in Section 1., Statement of Basis and Purpose, which states,

“ICP may be asked to decommission other INL buildings and structures with similar characteristics, contaminants, and complexity to those specifically identified in Section 2.1.10, Table 1. This Action Memorandum intends to allow the potential future inclusion

of such buildings and structures under the scope of this NTCRA, as appropriate. If additional buildings and structures are added to the list in Table 1, concurrence from DEQ and EPA will first be obtained, and a letter will be placed in the Administrative Record for this NTCRA identifying the building or structure and explaining why it is sufficiently similar to the facilities specifically identified in this Action Memorandum and appropriate for inclusion under the scope of the NTCRA.”

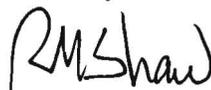
The ARP IV structure is located within the sub-surface disposal area (SDA) of the Radioactive Waste Management Complex and was used to provide containment for the excavation of targeted waste streams. The decommissioning of this structure is similar in nature to the decommissioning for the Glovebox Excavator Method (GEM) Facility as a NTCRA that was completed in 2009. Further information on the ARP IV structure is provided in Enclosure 1 to this letter. The MDA bunker and craters are located approximately 2 miles southeast of the Naval Reactors facility. The bunker was used for explosives storage and testing following World War II and is partially collapsed. The collapsed bunker and three nearby detonation craters were used for disposal of empty powder cans that had contained propellant used in the artillery testing of the 16” diameter navy guns at CFA. Further information on this facility is provided in Enclosure 2 to this letter. The RPSSA asphalt and concrete pads were used for the storage of radioactively contaminated parts and equipment at TAN. The RPSSA is further described in the Enclosure 3 to this letter.

The enclosures to this letter further define the scope of the decommissioning activities and provide explanation as to why these structures are similar in “characteristics, contaminants, and complexity” to the other buildings identified for general decommissioning action memo Table 1, and are appropriate for inclusion as NTCRAs.

Please note that all three of these facilities are already existing CERCLA sites. Wastes generated from these NTCRA locations will be managed as CERCLA waste. These wastes will be managed as described by the applicable or relevant and appropriate requirements (ARARs) identified in the Action Memorandum. Requirements for the management of specific wastes are included in the attachments to this letter where applicable.

Upon receipt of your concurrence with this determination, this letter and attachment, along with your concurrence letters, will be posted to the Administrative Record, and will serve as an addendum to Section 2.1.10, Table 1., of the Action Memorandum. This information will also be incorporated into the next revision of that document.

Sincerely,



R. Mark Shaw, Federal Project Director
Facilities Disposition Project

Enclosures

UFC: 6000
Disposition Authority: A16-1.5-a
EM-FMDP-11-055

ID DISTRIBUTION:

DOE-ID Administrative Support Center
SHAW, ROBERT M
Hernandez, Nicole
Pinzel, Marcus
Dave Eaton, CWI

CONCURRENCE:

RECORD NOTES:

1. This letter transmits the Addendum to Table 1. of the Action Memorandum for General Decommissioning Activities under the Idaho Cleanup Project (DOE/ID-11293, Revision 1) to the agencies.
2. Mark Shaw wrote this letter.
3. This letter/memo closes Pegasus number N/A
4. The attached correspondence has no relation to the Naval Nuclear Propulsion Program.
5. The attached correspondence has no relation to the ARRA stimulus funding.

Enclosure 1 Accelerated Retrieval Project IV Structure

The Accelerated Retrieval Project (ARP) IV structure (WMF-1615) is located within the Subsurface Disposal Area (SDA) at the Radioactive Waste Management Complex (RWMC). See Figure 1-1. This structure will be decommissioned under the General Decommissioning Action Memo (DOE/ID-11293) as anticipated in the OU 7-13/14 Remedial Action/Remedial Design Work Plan (DOE/ID-11389). The purpose of the ARP structures was to support targeted waste retrieval in order to remove specific waste forms that were highly contaminated with solvents, transuranics, and uranium. The retrieval within ARP IV addressed retrieval from Pit 5 within the SDA and is now complete.



Figure 1-1. Accelerated Retrieval Project IV location.

The NTCRA approach is consistent with anticipated decommissioning approach laid out in the OU 7-13/14 Remedial Design/Remedial Action Workplan (DOE/ID-11389). That document states in Section 3.4, bullet 14, that interim or final removal and disposition of structures (e.g. retrieval enclosures, airlocks, and waste storage facilities) will be planned and executed either under the ICP General Decommissioning Action Memorandum (DOE/ID-11293) or in Phase 3.

The decommissioning of this structure is similar in nature to the decommissioning for the Glovebox Excavator Method (GEM) Facility that was completed in 2009. Waste disposition for the decommissioning of ARP IV was specifically addressed in the OU 7-13/14 RD/RA WP. Table 10 in section 4 of that document (see Table 1-1 below) stated that the waste from decommissioning would be managed as CERCLA waste with disposal in the SDA. The vast majority of waste from the decommissioning of the ARP IV structure will be disposed in the SDA. Only those items that are not compatible with disposal in the SDA would be removed and reused within other ARP structures or prepared for disposal elsewhere. Examples include batteries and lighting systems.

Table 1-1. Excerpt from DOE/ID-11389 Section 4 Table 10.

Waste Stream Description	Expected Type(s)	Storage or Staging Location	Planned Disposition
Miscellaneous waste generated from construction, decontamination, operation, or maintenance of retrieval enclosures, airlocks, or other structures (e.g., rags, absorbed condensate, decontamination water, and plastic)	CERCLA	Retrieval enclosure, airlock, or CERCLA area in the SDA	Disposal in the SDA. Decontamination fluids may be applied as dust suppressant in the retrieval enclosure or absorbed by soils when decontamination is occurring in the retrieval enclosure.
Facility structural components (e.g., building liners, trusses, and foundation blocks) from decommissioning and demolition (Significant amounts are not expected until Phase 3.)	CERCLA	Retrieval enclosure, airlock, or CERCLA area in the SDA	Disposal in the SDA.

The planned disposition of the structure includes the disposal of the fabric covering (false ceiling, inner and outer fabric layers) being laid down within the building footprint. Numerous holes will be punched in the fabric to prevent it from becoming either a moisture/vapor barrier or trap. It is anticipated that the structural steel will also be laid down within the building footprint and covered with soil. A geotechnical evaluation of the compatibility of the placement of the structural steel with respect to the long term performance and stability of the final end state for OU 7-13/14 is being prepared and will be submitted to the Agencies upon completion.

Enclosure 2

Mass Detonation Area (MDA) Bunker and Craters (ORD-13)

The MDA is a munitions response site that was identified in the *Record of Decision Experimental Breeder Reactor-I/Boiling Water Reactor Experiment Area and Miscellaneous Sites, Operable Units 6-05 and 10-04, Idaho National Engineering and Environmental Laboratory* as part of the Naval Proving Ground munitions response area. The MDA is located 1.6 km (1 mi) east of mile marker 8 on Lincoln Boulevard, north of the INTEC and approximately 3.2 km (2 mi) east of the Naval Reactors Facility. The MDA site encompasses approximately 322 ha (796 acres) and has been used for a number of small-to-large-scale detonation tests. The MDA site includes numerous blast craters varying in dimensions from a few feet to several tens of feet. As stated in the ROD, the MDA is littered with large quantities unexploded ordnance, pieces of explosives, and structural debris scattered during past testing and more recent ordnance detonation activities.

While remediation of munitions and explosives of concern (MEC) at the MDA is addressed in the ROD, addressing demolition of the bunker and craters that were used for waste disposal is not specifically addressed. Conducting this work under a NTCRA is recommended as the expeditious course of action to address health and safety concerns associated with the partially destroyed structure and craters that present physical hazards to human health and the environment that are unrelated to MEC. The potential for MEC in work areas will be evaluated and cleared by an explosives ordnance disposal subject matter expert prior to being released for specific work activities under this NTCRA.

The 26'-6" wide by 81'-0" long MDA explosives storage magazine (or bunker) was constructed in 1945 to support full-scale tests in 1945 and 1946. As a result of planned explosives detonation(s) within the structure itself, the bunker's ceiling collapsed leaving twisted rebar and concrete rubble. The partially destroyed bunker was subsequently used as a disposal location for empty powder cans (see Figures 2-1 and 2-2). The discarded empty powder cans at one time contained propellant used in the testing of the 16" diameter navy guns at CFA. Similarly detonation craters within the MDA were also used for the disposal of those powder cans.

The proposed action would address the physical hazards at the site by demolishing the bunker (i.e., collapse in place) and crushing empty powder cans in both the bunker and craters followed by covering them with soil and contouring the area to facilitate revegetation. No known hazardous substances are present within the bunker due to the energetic nature of the tests. The inert debris can be disposed on-site consistent with the *Engineering Evaluation/Cost Analysis for General Decommissioning Activities under the Idaho Cleanup Project* (DOE/ID-11291, August 2006) and associated Action Memorandum that provide for items that are not contaminated to be "left in place, backfilled and brought to grade."



Figure 2-1. View of MDA bunker from the west



Figure 2-2. View of MDA bunker from southwest corner

Enclosure 3

Radioactive Parts Storage and Service and Storage Area

Radioactive Parts Storage and Service and Storage Area (RPSSA)(TSF-43) consists of concrete pads, asphalt pads, and other open areas that were used to store radioactively contaminated parts and equipment. See Figure 3-1 below. Previously the buildings TAN-647 and TAN-648 were located within this area. RPSSA is located in the northwest corner of the TSF. There are no current operational activities occurring within this area. Soil beneath and surrounding the pads may be radioactively contaminated from releases from the contaminated equipment stored in this area.

The NTCRA approach for the RPSSA consists of removal of the asphalt and concrete pads for disposal at the ICDF. Contaminated soils within the TSF-43 area will also be removed for disposal at ICDF as necessary to meet the OU 10-08 remediation goals for the contaminants of concern (Cs-137 and mercury). Waste disposal at ICDF is dependent upon meeting the applicable ICDF Waste Acceptance Criteria.

The NTCRA will involve removing and disposing of contaminated asphalt pads, concrete pads, soil, and debris. Contaminated soil will be excavated to a nominal depth of up to 10 ft bgs for hypothetical future residential use as necessary to meet the OU 10-08 remediation goals. Waste will be characterized to facilitate proper management and demonstrate compliance with the ICDF Waste Acceptance Criteria. The excavated area will be characterized sufficiently to provide a basis for the implementation of institutional controls or for the area to be released for unrestricted land use. The excavated site will be backfilled, contoured to match surrounding grade, and revegetated. A completion report will be prepared upon completion of the NTCRA providing sufficient documentation to allow for the appropriate application of ICs or for release for unrestricted use.

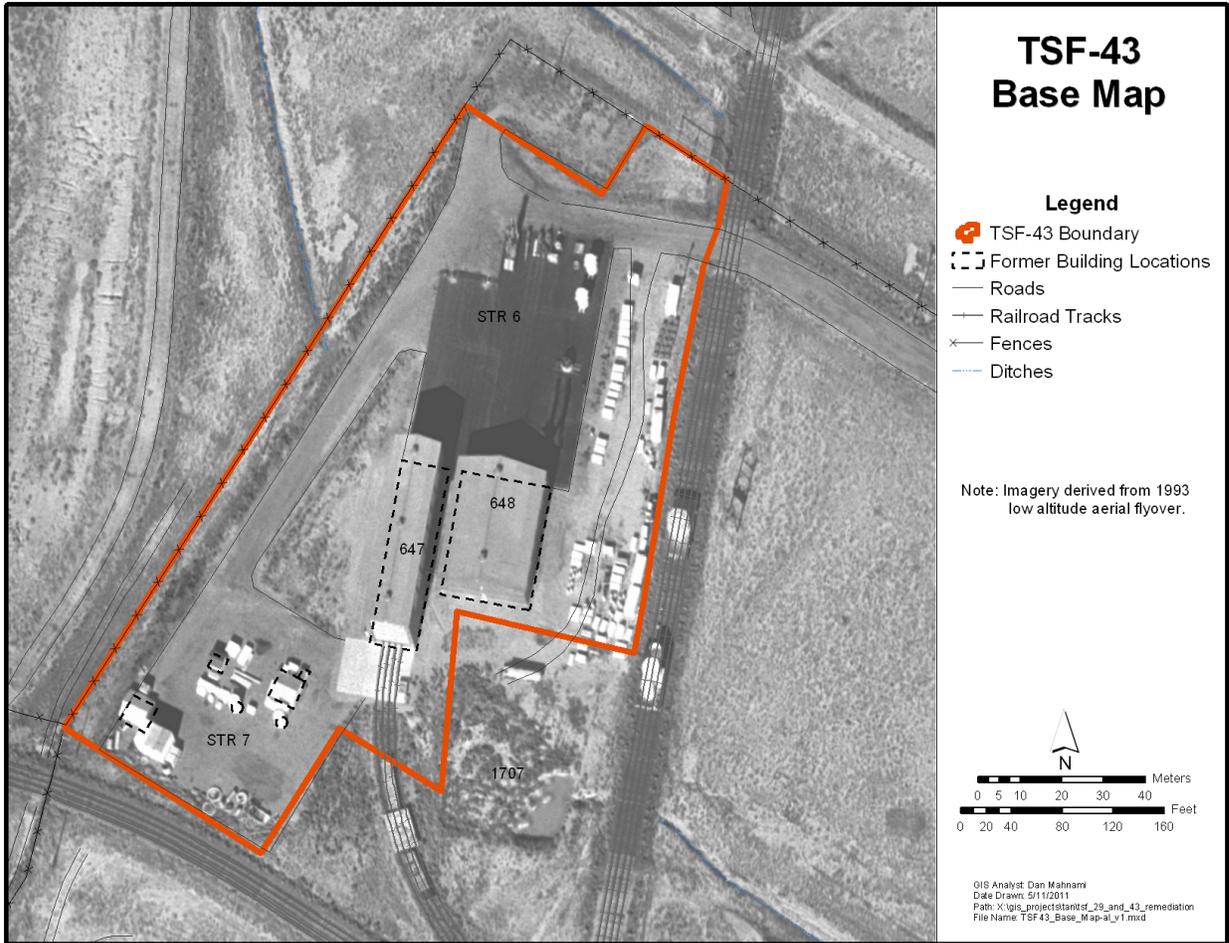


Figure 3-1. TSF-43 Radioactive Parts Service and Storage Area