

RECORD OF TECHNICAL CHANGE

Technical Change No. ROTC CAP-1

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Project/Job No. Corrective Action Unit 224

Date 8/8/2007

Project/Job Name Corrective Action Unit 224: Decon Pad and Septic Systems

The following technical changes (including justification) are requested by:

Glenn Richardson
(Name)

Task Manager
(Title)

Description of Change:

1. Page x, second bullet – Replace the third sentence with the following text:

These include a concrete sump containing sludge located adjacent to the concrete pad, any sediment or sludge in the trenches on the concrete pad, and three areas of plutonium (Pu)-239-contaminated soil. A total of approximately 10 yd³ of sludge will be removed from the trenches and the sump, the sump itself will be removed generating approximately 4 yd³ of concrete debris, and a total of approximately 56 yd³ of soil will be excavated. The trenches will be filled with grout.

2. Page 3, fourth paragraph – Replace the fourth and fifth sentences with the following text:

Additionally, the wastewater sump at CAS 06-17-04, including concrete in the sump area, will be removed and disposed of appropriately. Any sediment or sludge in the trenches on the concrete pad will also be removed for disposal, and the trenches will be filled with grout. Radiologically contaminated soil will be removed from several locations identified in these CASs and disposed of appropriately.

3. Page 10 – Add the following text after the second paragraph:

Several samples collected at CASs 06-17-04 and 06-23-01 exceeded the preliminary action level (PAL) of 100 milligrams per kilogram (mg/kg) for TPH-DRO. These samples were moved to a Tier 2 evaluation, which consisted of establishing the final action levels (FALs) for the hazardous constituents of TPH-DRO at their corresponding PAL concentrations as established in the CAIP (NNSA/NSO, 2004). As presented in the following table, the concentrations of the hazardous constituents of TPH-DRO in these samples did not exceed the FALs. Therefore, TPH-DRO is not considered a COC for these CASs.

Maximum Concentrations (mg/kg) of the Hazardous Constituents of Diesel for Samples Containing TPH-DRO Concentrations Greater than 100 mg/kg in CASs 06-17-04 and 06-23-01

Constituent	FAL	CAS 06-17-04	CAS 06-23-01
1,3,5-trimethylbenzene	70	nd	nd
2-methylnaphthalene	190	0.066(J)	nd
anthracene	100,000	nd	nd
benzene	1.4	nd	nd
benzo(a)anthracene	2.1	0.035(J)	nd
benzo(a)pyrene	0.21	nd	nd
benzo(b)fluoranthene	2.1	0.077(J)	nd
benzo(g,h,i)perylene	29,000	nd	nd
benzo(k)fluoranthene	21	nd	nd
chrysene	210	nd	nd
ethylbenzene	400	nd	nd
fluoranthene	22,000	0.05(J)	0.028(J)
fluorene	26,000	nd	nd

**Maximum Concentrations (mg/kg) of the Hazardous Constituents of Diesel for Samples Containing
TPH-DRO Concentrations Greater than 100 mg/kg in CASs 06-17-04 and 06-23-01
(continued)**

Constituent	FAL	CAS 06-17-04	CAS 06-23-01
n-butylbenzene	240	nd	nd
n-propylbenzene	240	nd	nd
phenanthrene	100,000	0.018(J)	nd
pyrene	29,000	nd	0.11(J)
toluene	520	nd	nd
total xylenes	420	nd	nd

nd = not detected above analytical limits in any samples

J = estimated value

4. **Page 10, third paragraph – Delete the list and replace the second sentence with the following text:**
Sludge and concrete will be removed from the wastewater sump area and disposed of appropriately. Any sediment or sludge in the trenches on the concrete pad will also be removed and disposed of appropriately, and the trenches will be filled with grout. Pu-239-contaminated soil will be removed from Areas A, B, and C and disposed of appropriately.
5. **Page 10, fifth paragraph (“Area A”) – Replace the first sentence with the following text:**
Characterization results for soil samples indicated Pu-239 to be above the FAL of 168.1 picoCuries per gram (pCi/g), as determined by the *Residual Radiation* (RESRAD) evaluation (NNSA/NSO, 2005).
6. **Page 11 – Replace Figure 5 with the attached Figure 5.**
7. **Page 12, first paragraph – Replace the first, second, third, and fourth sentences with the following text:**
After the planned volume of soil has been removed, a minimum of two soil verification samples will be collected from the base of each excavation. Samples will be analyzed for isotopic Pu to verify that the remaining soil is below the action level.
8. **Page 12 – Delete the third, fourth, and fifth paragraphs (“Concrete Decontamination Pad” and “Areas D, E, F, and G”).**
9. **Page 14, second paragraph (“Hydrocarbon Waste”) – Replace the first sentence with the following text:**
Although not expected, if hydrocarbon waste is generated, it will be analyzed for gamma-emitting radionuclides by either ISOCS or laboratory analysis, in order to satisfy the landfill disposal restrictions.
10. **Page 14, third paragraph (“Low-Level Waste”) – Replace the first sentence with the following text:**
Closure activities may include removal of radiologically contaminated soil.

Justification:

The samples collected at CASs 06-17-04 and 06-23-01 that exceeded the PAL for TPH-DRO were moved to a Tier 2 evaluation, which consisted of establishing the FALs for the hazardous constituents of TPH-DRO at their corresponding PAL concentrations. The concentrations of the hazardous constituents of TPH-DRO in these samples did not exceed the FALs. Therefore, TPH-DRO does not represent a significant risk and is no longer considered a COC for these CASs. Soil in Areas D, E, F, and G, where samples exceeded the PAL for TPH-DRO, will therefore be left in place. The concrete decontamination pad was originally planned to be removed in order to access the TPH-DRO-contaminated soil located beneath the pad. Because the soil beneath the pad will be left in place, the concrete decontamination pad will also be left in place.

The project time will be decreased by approximately 8 days.

Applicable Project-Specific Document(s):

Corrective Action Plan for Corrective Action Unit 224: Decon Pad and Septic Systems, Nevada Test Site, Nevada.
July 2006. DOE/NV--1143. Las Vegas, NV.

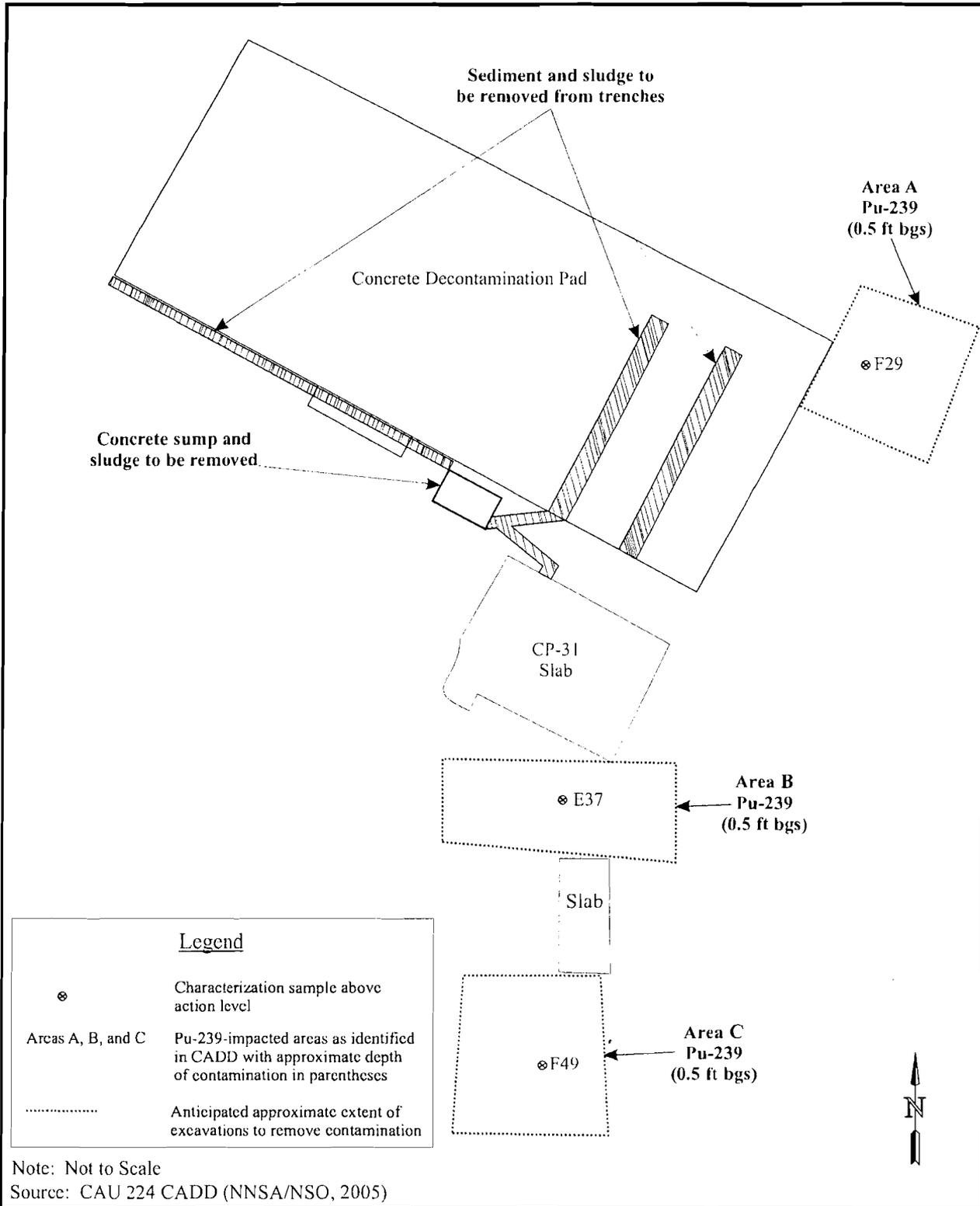


FIGURE 5.
 CAS 06-05-01, LEACHFIELD; CAS 06-17-04, DECON PAD AND
 WASTEWATER CATCH; AND CAS 06-23-01, DECON DISCHARGE PIPING

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Approved By:

NNSA/NSO Federal Sub-Project Director

Date 8-8-07

NNSA/NSO Acting Federal Project Director

Date 8-8-07

NDEP

Date 8/10/07
