

# RECORD OF TECHNICAL CHANGE

Technical Change No.: CAP-1

Project/Job No. Corrective Action Unit 204

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Date APR 13 2003

Project/Job Name: Corrective Action Unit 204 / Corrective Action Plan

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

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(Name)

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(Title)

## Description of Changes:

1. Page x, 3<sup>rd</sup> bullet. Replace Sentences 3 through 7 with the following:

Two large, sunken, asbestos- and steel-lined pits containing friable asbestos between the steel liners and concrete walls are located north of the Kay Blockhouse. Soil located at the bottom of the pits is impacted with radionuclides, royal demolition explosives, and lead. Steel plates will be attached over the top of the pits. Approximately 535 m<sup>3</sup> (700 yd<sup>3</sup>) of soil impacted with radionuclides in the southern portion of the CAS and 3 m<sup>3</sup> (4 yd<sup>3</sup>) of lead-impacted soil from a small burn pit were identified during characterization. The impacted soil in these two areas will be excavated. The entranceway to the bunker will be repaired and closed, a lock installed, a double-strand wire fence installed around the entire bunker, and warning signs posted. A small amount of soil that is possibly impacted with beryllium may need to be relocated from in front of the door in order to close it.

2. Page 3, Table 1, Row 5 (CAS 05-33-01), Column 5. Delete Sentences 2, 5, 7, and 8 and add the following:

Attach steel plates over the top of the asbestos- and steel-lined pits. Repair, close, and secure the existing wooden door.\*

3. Page 3, Table 1. Replace asterisked footnote with the following:

\* A small amount of soil that is possibly impacted with beryllium may need to be relocated from in front of the door in order to close it.

4. Page 5, Section 2.1.2.1. Replace the 2<sup>nd</sup> sentence with the following:

The bunker is located approximately 914 meters (m) (3,000 feet [ft]) from ground zero of the T-1 atmospheric test and consists of four rooms.

5. Page 8, Paragraph 1. Replace the 3<sup>rd</sup> and 4<sup>th</sup> sentences with the following:

The entrance to the bunker will be closed and secured with a lock to restrict access.

6. Page 8, Section 2.1.2.2, Paragraph 3. Replace the 3<sup>rd</sup> and 4<sup>th</sup> sentences with the following:

The entrance to the bunker will be closed and secured with a lock to restrict access.

7. Page 11, Paragraph 2. Replace the 3<sup>rd</sup> and 4<sup>th</sup> sentences with the following:

The entrance to the bunker will be closed and secured with a lock to restrict access.

8. Page 13, Paragraph 2. Replace Sentences 1 through 6 with the following:

The entrances to the smaller bunker and the main bunker will be closed and secured with a lock to restrict access.

9. Page 15, Paragraph 2. Replace Sentences 4 through 7 with the following:

The two asbestos- and steel-lined pits (sample locations E23 and E24) will be covered by attaching steel plates over the top of each pit.

10. Page 15, Paragraph 2. Replace Sentences 12 through 14 with the following:

Approximately 535 m<sup>3</sup> (700 yd<sup>3</sup>) of soil encompassing sample locations E27, E34, E157, E161, and E163 were identified during characterization as being contaminated with U-238.

11. Page 15. Replace Paragraphs 3 and 4 with the following paragraph:

The existing wooden door to the Kay Blockhouse is hanging on one hinge. The door will be repaired and closed, a hasp installed (if required), and a lock installed. A small amount of beryllium-impacted soil may need to be relocated from in front of the door in order to close it.

12. Page 16. Replace Paragraph 3 with the following paragraph:

In addition to removing waste from the site, administrative controls will be implemented. This includes installing a double-strand wire fence around the bunker and underground structure and berm to the north (see Figure 7) and posting warning signs with contact information according to the FFACO use restriction posting guidance (FFACO, 2003). Once the site has been secured, a use restriction will be implemented to prevent future use of the site.

13. Page 17, Paragraph 5 ("Mixed Low-Level Waste"). Replace the 1<sup>st</sup> sentence with the following:

The soil at CAS 05-33-01, Kay Blockhouse, from sample location E21 is impacted with lead and radionuclides (NNSA/NSO, 2004).

14. Page 17. Delete Paragraph 6 ("Beryllium-Impacted Soil").

15. Page 19, Section 2.4.2, Paragraph 1. Replace the 3<sup>rd</sup> sentence with the following:

Additional activities among the five CASs include: conducting radiological surveys to appropriately locate RMA boundaries, removal of soil impacted with lead and radionuclides, removal of friable asbestos, and removal of construction debris from the sites.

16. Page 19, Paragraph 5 ("CAS 05-33-01"). Replace the last sentence with the following:

There are four locations at this site where contaminated soil will be removed during site remediation.

17. Page 20, Paragraph 1. Replace the 2<sup>nd</sup> sentence with the following:

After a portable XRF unit indicates that lead levels are below the PAL as described in Section 2.1.2, a minimum of five verification soil samples will be collected from the excavation.

18. Page 20. Replace Paragraph 2 with the following:

No soil will be removed from sample locations E23 and E24 (Figure 7). Steel plates will be attached over the top of the pits, and closure will be confirmed by visual inspection and photographic documentation of the final condition of the two pits.

19. Page 20, Paragraph 3. Replace the 1<sup>st</sup> sentence with the following:

At sample location E27 and extending past sample locations E34, E157, E161, and E163 (Figure 7), radionuclide-impacted soil will be removed.

20. Page 20. Replace Paragraph 4 with the following:

Beryllium-impacted soil may need to be relocated from in front of the door to Kay Blockhouse in order to close the door to the bunker. Because no COCs are present at this location, no verification samples will be collected from this area.

21. Page 20, Paragraph 5. Remove the 1<sup>st</sup>, 4<sup>th</sup>, and 5<sup>th</sup> bullets, and replace the 3<sup>rd</sup> bullet with the following:

U-238 concentrations are less than 63.2 pCi/g (NCRP, 1999).

22. Page 21, Table 2. Remove last three rows and \*\* footnote.

Justification:

Changes 1, 2, 9, 13, 15, 16, 18, 21, and 22 are needed because the waste located in the pits will be difficult to excavate safely and completely. Entry into the pits would be required to fully remove impacted material from the pits. It would be time-consuming and costly to fill the pits with soil. Therefore, it is proposed to instead attach steel plates over the top of each pit to mitigate environmental impacts due to exposure and migration of the waste.

Changes 1, 10, 17, and 19 are needed to account for the possibility that more contaminated soil may be identified during cleanup activities than what was estimated in the CADD. The proper notifications will still be made; however, an ROTC to the CAP will not be necessary if additional contaminated soil is removed from any of these locations.

Changes 1, 2, 3, 5-8, 11, 12, 14, and 20 are needed due to the historical significance of these bunkers. Due to the historical significance of the sites, the bunker doors will not be welded closed, and the wooden entranceway to the Kay Blockhouse (CAS 05-33-01) will not be demolished. Beryllium-impacted soil will not be disposed, but it will remain near its original location.

Change 4 is needed because CAS 01-34-01 is located near ground zero of the T-1 test, not the T-3 test.

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The project time will be unchanged by approximately 0 days.

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Applicable Project-Specific Document(s): *Corrective Action Plan for Corrective Action Unit 204: Storage Bunkers, Nevada Test Site, Nevada, Revision 0, September 2004, DOE/NV-1003.*

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Approved By: *Joseph J. Spazelli* Date 4/6/05  
NNSA/NSO Project Manager

*Robert M. Rasmussen* Date 4/7/05  
NNSA/NSO Environmental Restoration Division Director

*Don [Signature]* Date 4/11/05  
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