

DOE ORDE4700.1

02-RF-00458



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CARLSON, R.	
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DORR, K.	
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AUBLE, M.	
GIBBS, F.	X
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ITO, F. M.	
JENKINS, K.	
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Steve Tower
D&D Program Lead
DOE, RFFO

RETYPING OF B551 AND B662 - DWF-010-02

B551 and B662 underwent Reconnaissance Level Characterization (RLC), and findings were reported in the Group A RLC Report, dated June 14, 2000. Both facilities were typed as Type 2 facilities, primarily because of elevated readings on the exterior metal roofs. However, the elevated readings were not investigated during RLC to determine if they were due to the presence of DOE-added radioactive material or naturally occurring radioactive material (NORM). Therefore, the RISS Project recently investigated the original elevated readings found on these two buildings. Specifically, a metal coupon was collected from the exterior of each facility where the highest activity was detected during the RLC. Coupon sample results did not show any activity associated with DOE isotopes of concern, and indicate that the facilities should be re-typed as Type 1 facilities. Characterization details are presented below and the coupon sample results are included as an attachment to this letter.

B551 RLC Investigation

B551 was surveyed as part of the RLC on 04/19/99. Results showed three total surface activity alpha readings above 100 dpm/100cm² on the metal exterior roof, these were survey points #24, 156 dpm/100cm², #26, 228 dpm/100cm², and #27, 102 dpm/100cm² (a roof drain).

The three points were surveyed again during late November 2001, and elevated readings were again detected. These points were then covered and re-surveyed during early December 2001 to determine if significant decay would occur. Significant decay would indicate the presence of short-lived radon decay products. Results from the re-survey indicated elevated readings and no significant decay, which indicated the presence of long-lived radon decay products (e.g., naturally occurring polonium-210) and/or DOE-added radioactive material. Two of the points (excluding the roof drain point) were surveyed again on 01/08/02; elevated readings were again detected.

On 01/31/02 a metal coupon sample from the roof of B551 was taken (Sample No. 02D0736-001.001). The sample was taken from Point #26, the point that had the highest reading during RLC. Results did not detect any of the DOE isotopes of concern.

CORRES. CONTROL	X	X
ADMIN RECD/080	X	X
TRAFFIC		
ATS/130		

CLASSIFICATION:	
UCNI	
UNCLASSIFIED	X X
CONFIDENTIAL	
SECRET	

AUTHORIZED CLASSIFIER
SIGNATURE: *J. Parsons*
DATE: 02/17/02

REPLY TO RFP CC NO.:

ACTION ITEM STATUS:	
PARTIAL OPEN	
CLOSED	

LTR APPROVALS:

ORIG. & TYPIST INITIALS:
DP:wjd

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ADMIN RECD

IA-A-000906

F-48469(Rev.9/94)
1/3

Because the B551 RLC was conducted to type the facility, radiological surveys were not conducted in accordance with the RFETS Pre-Demolition Survey (PDS) requirements. Therefore, a B551 PDS will be conducted, and a PDS Report (PDSR) will be submitted to CDPHE for approval prior to building demolition. In addition, the B551 chemical dispensary will be evaluated again after all chemicals and storage racks have been removed. However, no chemical contamination of the dispensary is anticipated. The dispensary was used to store primarily paints and painting supplies, and the RLC indicated no spill history. In addition, there was no physical evidence of contamination (i.e., no visible stains).

B662 RLC Investigation

B662 was surveyed as part of the RLC on 04/15/99. Results showed six total surface activity (*alpha*) readings above 100 dpm/100cm²:

Four on exterior roof survey points – Point #31, 210 dpm/100cm², Point #32, 226 dpm/100cm², Point #33, 232 dpm/100cm², and Point #34, 330 dpm/100cm².

Two on interior floor cracks – Point #35, 288 dpm/100cm² and Point #36, 126 dpm/100cm².

The six points were surveyed again on 12/06/01, and elevated readings were again detected. These six points were then covered and re-surveyed on 12/10/01 to determine if significant decay would occur. Significant decay would indicate the presence of short-lived radon decay products. Results from the re-survey indicated elevated readings and no significant decay, which indicated the presence of long-lived radon decay products (e.g., naturally occurring polonium-210) and/or DOE-added radioactive material. The four exterior metal roof points were surveyed again on 12/19/01; elevated readings were again detected.

On 01/31/02 a metal coupon sample from the roof of B662 was taken (Sample No. 02D0736-002.001). The sample was taken from Point #34, the point that had the highest reading during the RLC. Results did not detect any of the DOE isotopes of concern.

Because the B662 RLC was conducted to type the facility, radiological surveys were not conducted in accordance with the RFETS Pre-Demolition Survey (PDS) requirements. Therefore, a B662 PDS will be conducted, and a PDS Report (PDSR) will be submitted to CDPHE for approval prior to building demolition.

Based on the B662 facility-specific Historical Site Assessment, and RLC and subsequent survey data, the building concrete slab may be radiologically and chemically contaminated, and therefore, will be dispositioned separately from the uncontaminated metal structure. The RISS Project will conduct additional PDS characterization of the slab, which may include taking core samples. Decisions on the removal and disposal of the slab, including necessary EH&S controls, will be made based on this characterization. During the demolition of the B662 structure, the slab may be treated as radiologically and chemically contaminated, and appropriate EH&S controls will be established to avoid any contaminant release.

Steve Tower
DWF-010-02
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Conclusion

Based on the above information and the attached data, Kaiser-Hill requests the re-typing of Buildings 551 and 662 from Type 2 to Type 1 facilities, and seeks concurrence from DOE, RFFO and CDPHE. It should be noted that these facilities do not have unrestricted release status. Pre-demolition Surveys will be conducted prior to their disposition. As a part of the future PDS, a more in-depth characterization of the B662 slab will need to be performed to determine appropriate waste disposal paths. Metal roof coupon sample results for B551 and B662 are attached. Follow-up investigation surveys or original elevated readings are on file in the B116 characterization files, and are available for review upon request. Please notify me or Duane Parsons at extension 6458 if you need any additional information to concur with this re-typing request. Thank you for your consideration in this matter.

Dennis Ferrera

Dennis W. Ferrera
Vice President and Project Manager
Remediation, Industrial D&D, & Site Services
Kaiser-Hill Company, LLC

DP:wjd

Enclosure:
As Stated

Orig. and 1 cc – S. Tower

cc w/o Encl:
Fred Gerdeman