

## ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE REGULATORY CONTACT RECORD

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**Date/Time:** December 9, 2004

**Site Contact(s):** Dyan Foss  
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**Regulatory Contact:** Edd Kray  
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**Agency:** CDPHE

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**Purpose of Contact:** Disposition of Area 5 Survey Units 12 and 43

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### Discussion

In accordance with the 776/777 DOP, Appendix I, the preparation of the facility for demolition is conducted in consultation with the CDPHE and is based on a series of decisions primarily related to maintaining releases to the environment and doses to the workers as low as reasonably achievable (ALARA). This contact record documents the activities that were conducted to prepare Area 5 Survey units 12 and 43 for demolition. Survey unit 12 consisted of rooms 134, 135, and 140. Survey unit 43 consisted of the east most portion of room 134.

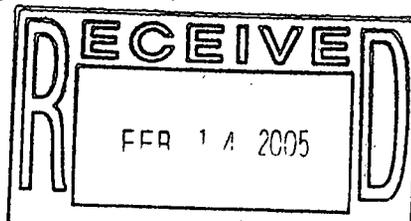
The preparation process for Survey unit 12 was initiated March 6, 2004 when a package for in-process radiological surveys was prepared and executed. Once the surveys were complete, the following actions were taken as part of the ALARA-based decontamination effort:

- Concrete shaving was performed on floor surfaces and stairway landing; manual chipping was used to remove hot spots.
- Expansion joints were remediated by manual chipping.
- Portions of contaminated masonry walls were removed around the plenum penetrations.

The area was resurveyed in accordance with the Radiological Pre-Demolition Survey Plan for Buildings 776/777. The surveys were provided to the CDPHE project representative, and a walk down of the area was conducted.

In addition to the radiological hazards, the non-radiological hazards have also been addressed in Survey unit 12. The following summarizes the non-radiological activities:

- Survey unit 12 contained a number of RCRA units, all of which have been closed. Room 134 was a RCRA permitted container storage area in Unit 776.1. This room also provided secondary containment for mixed residue tanks T-360 and T-370 (Units 94.007, 94.008) and ancillary piping. The tank systems were closed by



removal, and the secondary containment was closed by the rinsate method as documented in a contact record with Harlen Ainscough dated 7/28/04. Room 134 also contained the Supercompactor, RCRA interim status unit 74, which was closed by removal. Room 135 contained the pilot Fluidized Bed Incinerator, RCRA interim status unit 49.02. The equipment was closed by removal, and the secondary containment was closed by the rinsate method as documented in a contact record with Harlen Ainscough dated 7/28/04.

- Chemicals and hazardous substances have been removed.
- Beryllium regulated and controlled areas have been closed. This survey unit comprises the west end of room 134 and all or portions of rooms 130, 130A, 135, and 140. The Advanced Size Reduction Facility (ASRF) is located in room 134, which is addressed in survey unit 1. The location of the ASRF was listed on the historical list of rooms with potential beryllium contamination. The baseline beryllium characterization of the rooms in this survey unit, conducted by KH in 1999, found no removable beryllium contamination. Prior to final encapsulation the room was again surveyed. Twenty five (25) samples were collected in the survey unit on horizontal surfaces from floor to ceiling. All samples were below the analytical reporting limit of 0.1 ug/100 cm<sup>2</sup>.
- Polychlorinated biphenyls (PCB) hazards and equipment have been removed.
- Asbestos has been abated.

The preparation process for Survey unit 43 was initiated June 8, 2004 when a package for in-process radiological surveys was prepared and executed. Once the surveys were complete, the following actions were taken as part of the ALARA-based decontamination effort:

- Performing decontamination (wiping) on the stainless steel floor and walls

The area was resurveyed in accordance with the Radiological Pre-Demolition Survey Plan for Buildings 776/777. The surveys were provided to the CDPHE project representative, and a walk down of the area was conducted.

In addition to the radiological hazards, the non-radiological hazards have also been addressed in Survey unit 43. The following summarizes the non-radiological activities:

- Survey unit 43 contained a portion of the Advanced Size Reduction Facility, RCRA permitted storage unit 776.1 and treatment unit 776.3. The stainless steel floor was closed under the debris rule and documented in the IWCP work package for Set 66.
- Chemicals and hazardous substances have been removed.
- Beryllium regulated and controlled areas have been closed. This survey unit included the Manual Disassembly Area (MDA) and Transfer Area (TA) associated with the Advance Size Reduction Facility (ASRF). The baseline beryllium characterization of the rooms in this survey unit, conducted by KH in 1999, found no removable beryllium contamination. Prior to final encapsulation the room was again surveyed. Twenty-four (24) samples were collected in the survey unit on horizontal surfaces from floor to ceiling. All samples were below the analytical reporting limit of 0.1 ug/100 cm<sup>2</sup>.

- Polychlorinated biphenyls (PCB) hazards and equipment have been removed.
- Asbestos has been abated.

Based on the survey results and the principles of ALARA, the risks (industrial and radiological) to the workers are greater than the benefit in source term reduction that would be gained through additional decontamination. The state project representative agrees that decontamination inside Survey units 12 and 43 has progressed to the point of reasonably achievable removal and that the subsequent step of encapsulation is appropriate.

In summary, ALARA-based decontamination has been completed, Survey units 12 and 43 will be encapsulated and surveyed for removable contamination, and controls will be applied during demolition. There are several areas within Area 5, which included these survey units that will be marked for additional controls during demolition. The following areas will require additional controls during demolition:

- Top of the South wall in Room 134
- All of survey unit 43

The controls for these areas may include any combination of the following:

- All areas will be painted orange, or some other bright color, to make the area readily identifiable during demolition.
- If structurally feasible, up to 50% of the walls will be removed while the building structure is still intact.
- A spray header will be used to wet the internals of the concrete block prior to demolition of the wall.
- Special briefings will be held with equipment operators and dust control and waste crews prior to initiating demolition of these areas.
- Measures will be taken to minimize the stockpiling of the debris associated with this activity.

This contact record will be included as an appendix to the characterization report for Survey units 12 and 43 and placed in the demolition file to ensure the controls and requirements are included in the demolition work packages for these survey units.

**Contact Record Prepared By: Dyan Foss**

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