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*Dedicated to protecting and improving the health and environment of the people of Colorado*

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Colorado Department  
of Public Health  
and Environment

July 31, 2002

Mr. Brian Hlavacek  
Tri-County District Health Department  
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## Regulatory Oversight of the Closure of The Rocky Flats Environmental Technology Site

Dear Mr. Hlavacek:

We have discussed the process used by the Colorado Department of Public Health and Environment (CDPHE) to oversee the cleanup and closure of the Rocky Flats Environmental Technology Site (RFETS), specifically as it relates to the generation of wastes from building decommissioning. This letter presents this process.

The cleanup of RFETS is structured through the Rocky Flats Cleanup Agreement (RFCA) among the Department of Energy, Environmental Protection Agency (EPA) and CDPHE. RFCA merges the authorities of CERCLA and RCRA (CHWA) into one process for cleanup and creates a shared authority for implementing regulatory oversight. CDPHE is the Lead Regulator for the Industrial Area at RFETS, the location of most building activities. RFCA is available at <http://www.rfets.gov/siteclosure/Rfca1/RFCACONT.htm>.

Building decommissioning is conducted under a series of protocols. The Decommissioning Program Plan, updated June 21, 1999, defines the process for decommissioning decision making. Three characterization documents detail procedures for characterizing contamination in structures at the beginning, during and end of decommissioning:

- D&D Characterization Protocol (DDCP), April 23, 2001
- Reconnaissance Level Characterization Plan for D&D Facilities (RLCP), April 23, 2001
- Pre-Demolition Survey Plan for D&D Facilities (PDSP), April 23, 2001.

The RFCA Standard Operating Protocol for Facility Component Removal, Size Reduction, and Decontamination Activities, February 9, 2001, details the standard cleanup activities for the buildings. The RFCA Standard Operating Protocol for Facility Disposition, September 13, 2000, describes the procedures for demolishing clean or decontaminated buildings. The RFCA Standard Operating Protocol

1/3

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SW-A-004886

Mr. Brian Hlavacek  
July 31, 2002  
Page 2

for Recycling Concrete, October 18, 1999, sets up the process for recycling clean building rubble on site for fill.

Structures determined to be available for decommissioning are first emptied of containerized waste, radioactive and chemical products and removable equipment, using standard RFETS operating procedures. Concurrently, operating record and historic information is examined to determine the contamination history of the building. In most cases, characterization is conducted through sampling and measurements to confirm whether the building is contaminated or not. Uncontaminated buildings are designated Type 1, after concurrence from CDPHE, and decommissioning proceeds using standard procedures with little regulator involvement. Contaminated buildings are designated Type 2 or 3, based on their level of contamination and complexity of decommissioning. Type 3 buildings require a separate decommissioning plan, but Type 2 buildings can be decommissioned using the standard protocols identified above. Regulator oversight in the process is keyed to discrete formal approvals or concurrence, and near-continuous consultative involvement in decision making and progress reviews.

Contamination will be removed from the building through a variety of mechanisms. Where contamination cannot be removed from the structure, the contaminated portion of the structure is removed as contaminated waste. Once a building is decontaminated and pre-demolition surveys confirm decontamination to Nuclear Regulatory Commission free release levels, regulatory approval is required for building demolition.

Care is taken to err on the side of caution in determining waste types during the process to appropriately classify wastes for disposal as TRU waste, low level waste, hazardous waste, or mixed waste. Uncontaminated materials are recycled as scrap metal, sent to local landfills, or recycled as on-site fill (rubble).

According to the regulations, the site is responsible for waste characterization, not the EPA or CDPHE. As such we do not have any process in place to certify or concur that what they send is properly characterized. However, the receiving facility is responsible for checking the waste to determine if it is correctly characterized. CDPHE does conduct inspections of the Flats to see if everything is in order and done properly, but this does not necessarily include any actual physical sampling or inspections of the waste being generated. However, the current decommissioning/demolition process includes a significant amount of surveying and sampling to properly characterize waste generated. This process is closely followed/overseen by CDPHE, as described above.

Beryllium (Be) does have specific waste handling, which is included in the sites Industrial Health and Safety Manual and required by DOE Rule 10 CFR 850. This includes wrapping or containerizing and labeling as Be-contaminated waste. Most Be-contaminated waste from RFETS is actually sent off as Be-contaminated radiological waste (usually LLW) rather than as Be-contaminated sanitary waste. Any Be-contaminated sanitary waste can only be sent to landfills that can (allowed in their permit) and will accept such waste. Generally Be waste is handled similar to asbestos waste. BFI should review the applicable rule and make their own determination if they want to handle Be-contaminated waste. You

2

Mr. Brian Hlavacek  
July 31, 2002  
Page 3

may also contact Glenn Mallory in the CDPHE Solid Waste Section (303-692-3445) for any specific solid waste questions.

Upon completion of demolition, a project closeout report, detailing the closure activities and waste disposition, is submitted for regulator review and concurrence/approval.

If you have any additional questions or wish to discuss this process, please contact me at 303-692-3423.

Sincerely,

  
Steve Farlton, Unit Leader  
Rocky Flats Oversight Unit

Cc: Dave Shelton, Kaiser-Hill  
Tim Rehder, EPA  
Glenn Mallory, CDPHE

