



Department of Energy

ROCKY FLATS FIELD OFFICE
10808 HIGHWAY 93, UNIT A
GOLDEN, COLORADO 80403-8200

02-DOE-01228

AUG 15 2002

Mr. Steve Gunderson
RFCA Project Coordinator
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

Mr. Timothy Rehder
Rocky Flats Project Manager
United States Environmental Protection Agency
999 18th Street, Suite 500
Denver, Colorado 80202-2466

Dear Messers Gunderson and Rehder:

In accordance with paragraph 125 of the Rocky Flats Cleanup Agreement (RFCA), the Department of Energy Rocky Flats Field Office (RFFO) is submitting a minor modification to the RFCA Standard Operating Protocol (RSOP) for Facility Component Removal, Size Reduction, & Decontamination Activities.

This minor modification changes sections 3.1 and 3.5 of the RSOP as shown in Enclosure 1. Briefly, this minor modification clarifies the use of surface contaminated object criteria and incorporates a recent CDPHE determination that certain leaded glass (Los Alamos windows) do not render a removed glovebox a hazardous waste.

In accordance with RFCA paragraph 125, there is no formal requirement that the lead regulatory agency approve minor modifications. Therefore, the affected pages will be incorporated into the RSOP in seven days.

If you have any questions concerning this transmittal, please contact me at (303) 966-2282 or Glenn Doyle at (303) 966-3087.

Sincerely,

Joseph A. Legare
Assistant Manager
for Environment and Stewardship

Enclosure



ADMIN RECORD

IA-A-001100

1/5

Messers Gunderson and Rehder
02-DOE-01228

2

AUG 15 2002

cc w/Encl:

J. Legare, AMES, RFFO

R. DiSalvo, CR, RFFO

W. Prymak, RFCA, RFFO

G. Doyle, RFCA, RFFO

F. Gerdeman, FCWM, RFFO

S. Bell, OCC, RFFO

J. Berardini, KH

D. Shelton, KH

L. Brooks, KH

CERCLA Administrative Record

2

- 2) Prior to performing activities under this RSOP, closure project personnel will participate in PEBs to discuss the proposed work and to review the applicable safety requirements. The LRA has a standing invitation to PEBs.
- 3) In-process characterization will be performed to ensure work area hazards are identified, quantified, and controlled.
- 4) Miscellaneous loose equipment and materials not needed for the decommissioning work will be removed from the work area.
- 5) Asbestos containing material (ACM) will be identified and abated by a qualified subcontractor. The abatement activity will be coordinated carefully to minimize interference with other activities and controls will be established to avoid disturbance of ACM during other activities.
- 6) As necessary, equipment and horizontal surfaces within the work area will be vacuumed and/or wiped down to remove any loose radiological and non-radiological contamination. This activity will be performed to minimize personnel exposure to potentially contaminated dust during subsequent decommissioning activities.
- 7) Electrical power to components will be de-energized, locked out/tagged out, and disconnected. Electrical systems that cannot be de-energized or that are required for continued closure activities will be identified and marked. Temporary power will be used, as necessary.
- 8) Building floor drains and connections to exterior piping will be sealed and marked.
- 9) Remaining equipment within the work area will be removed. As a general rule, equipment located at floor level will be removed first to allow better access to overhead areas. Equipment removal may include the disassembly and decontamination of the equipment if it is determined to be cost-effective or necessary to ensure worker safety. Decontamination may be completed in place, or the equipment may be wrapped or coated to prevent the spread of contamination and moved to another area for decontamination and/or size reduction. Specific contamination controls will be detailed in the applicable WCD(s). Facility components slated for unrestricted release or reuse will be surveyed in accordance with applicable Site procedures.
- 10) Items and loose debris within gloveboxes will be removed. Internal surfaces of gloveboxes may be wiped down, or more aggressive techniques may be used, such as abrasive/grit blasting or other methods described in Section 3.4. Lead shielding will may be removed from external surfaces to minimize the generation of mixed waste.
- 11) Tank systems will be vented, purged, and drained to remove liquids. Ancillary piping will be removed first, using the best available method (e.g., disconnecting at a flanged joint, cutting with a wheel cutter or pipe crimping tool). Containment will be installed around the vacuum/vent lines and the tanks will be disconnected from the exhaust header. Tanks will be size reduced, as necessary to facilitate handling and packaging. Residual liquids and/or sludges in tanks and ancillary piping will be collected, characterized, and managed in accordance with the applicable waste management requirements (see Section 4.0).

3

3.5 Removal, Size Reduction, and Decontamination of Gloveboxes

Gloveboxes will be removed either in one piece or size reduced into smaller sections. The level of radioactive contamination, glovebox construction, and presence or absence of hazardous constituents will determine the method selected. Disassembly and removal of the gloveboxes in one piece is preferred, ~~to as the surface-contaminated object (SCO) method.~~³⁴

~~In the event the SCO criteria are not met, the g~~Gloveboxes will be size reduced (if required) and packaged as either low-level (LL), low-level mixed (LLM), transuranic (TRU), or transuranic mixed (TRM) waste. If the glovebox is to be shipped as non-hazardous LL waste, inherently hazardous constituents must be removed from the exterior and interior of the glovebox, allowing the glovebox itself to be characterized as non-hazardous. Examples of hazardous constituents include some leaded glass windows, lead sheeting, and some lead lined gloves.^{34A} For gloveboxes that previously stored characteristic waste only, this will occur once waste residuals have been removed. Gloveboxes previously storing listed wastes will be considered non-hazardous once the "clean debris surface" standard has been met following decontamination. In either case, the initial disassembly steps are similar. In general, glovebox units will be emptied, disconnected, removed, size reduced (if required), and packaged as described below.

- 1) Non-essential external equipment will be removed.
- 2) Non-fixed equipment, tools, waste containers, debris and other object will be removed from the interior of the glovebox.
- 3) Non-fixed, inherently hazardous material will be removed from the interior and exterior of the glovebox.
- 4) Interior glovebox surfaces will be swept and/or wiped down, as necessary. At this point, the glovebox unit will be empty, clean, and dry.
- 5) Building utilities, except ventilation, will be isolated and disconnected from the glovebox (e.g., instrument air, gas, water, electrical service).

³⁴ ~~The surface-contaminated object (SCO) criteria allow for packaging in DOT industrial packages and may allow some items to be removed and shipped as its own container. SCO is a DOT category of LL waste. SCO dispositioning is preferred because of the significant potential for reducing worker exposure levels and work hours required for removal. SCO dispositioning will be used when the following conditions are met:~~

~~The majority of glovebox surfaces must be accessible by surveying equipment to ensure there is no concealed nuclear material inventory or holdup.~~

~~Both fixed and removable radioactive contamination must be below the maximum allowable DOT levels.~~

- ~~• Inherently hazardous constituents must be removed from the exterior and interior of the glovebox, allowing the glovebox itself to be characterized as non-hazardous. Examples of hazardous constituents include leaded glass windows and lead lined glovebox gloves. For gloveboxes that previously stored characteristic waste only, this will occur once waste residuals have been removed. Gloveboxes previously storing listed wastes will be considered non-hazardous once the "clean debris surface" standard has been met following decontamination.~~

^{34A} The presence of Los Alamos leaded glass windows does not render a removed glovebox a hazardous waste if characterized in accordance with the non-hazardous waste determination approved by CDPHE. (See: CDPHE letter from Fred Dowsett to Jacqueline Berardini dated June 24, 2002.)

4

- 6) Internal plumbing will be disconnected, drained, and removed. Any liquid generated will be collected in bottles, sampled, removed, and stored pending characterization and final disposition.
- 7) Liquid will be removed from the criticality drain (if applicable).
- 8) Fixed hazardous materials, such as lead shielding, will be removed if the glovebox is to be shipped as non-hazardous LL waste.
- 9) If "debris rule" treatment is feasible, internal surfaces will be wiped down and decontaminated to the extent required in accordance with Section 5.1.2 of this RSOP. This may require extensive cleaning using approved methods. Gloveboxes meeting the "clean debris surface" standard³⁵ will be disposed as non-hazardous debris. Gloveboxes not meeting the "clean debris surface" standard will be disposed as hazardous debris.
- 10) A final radiological survey will be conducted.
- 11) A spray fixative may be applied to contaminated surfaces and allowed to solidify, thereby encapsulating most of the loose particulate matter and preventing that particulate from becoming airborne contamination. Some spray equipment used during application of the fixative may be left in the glovebox. After encapsulation, the glovebox will be removed.
- 12) The glovebox exhaust will be disconnected from the building ventilation system.
- 13) The glovebox shell will be separated from its legs. Depending on the size of the glovebox and contamination levels, the glovebox will be size reduced (if necessary) and packaged for recycle (if the applicable unrestricted release criteria are met), as SCO, or as hazardous debris.
- 14) Once inside the size reduction facility, any remaining hazardous waste, including some leaded glass (see note 34A discussion regarding the non-hazardous characterization for Los Alamos leaded glass windows) and some, lead-lined glovebox gloves, etc., will be removed from the glovebox using approved techniques.
- 15) The glovebox will be size reduced, as necessary, and segregated into appropriate waste streams for packaging. These waste streams include, but are not limited to, light metal, composite glovebox materials, combustibles, plastic, glass, leaded glass, leaded gloves, lead sheeting, and HEPA filters.
- 16) Waste will be characterized and packaged in accordance with the applicable waste management procedures (see Section 4.0; see also Radiological Characterization for Surface Contaminated Objects (PRO-267-RSP-09.05)). Absorbent may be added to the packages to absorb any residual dampness.

Specific details for each glovebox removal activity will be included in the applicable WCD(s).

³⁵ A "clean debris surface" is defined as "a surface that, when viewed without magnification, is free of all visible contaminated soil or hazardous waste except that residual staining from soil and waste consisting of light shadows, slight streaks, or minor discolorations, and soil and waste in cracks, crevices, and pits may be present provided such staining and soil and waste in cracks, crevices, and pits is limited to no more than 5% of each square inch of surface area." (6 CCR 1007-3, Part 268.45)

5/5