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STATE OF COLORADO

Bill Owens, Governor

Douglas H. Benevento, Executive Director

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

4300 Cherry Creek Dr S.
Denver, Colorado 80246-1530
Phone (303) 692-2000
TDD Line (303) 691-7700
Located in Glendale, Colorado

Laboratory and Radiation Services Division
8100 Lowry Blvd.
Denver, Colorado 80230-6928
(303) 692-3090

<http://www.cdphe.state.co.us>



Colorado Department
of Public Health
and Environment

February 14, 2005

Mr. Joe Legare
Director, Project Management Division
U.S. Department of Energy, Rocky Flats Project Office
10808 Highway 93, Unit A
Golden, CO 80403-8200

RE: Pre-Demolition Survey Report (PDSR) for Buildings 559 - Approval

Dear Mr. Legare:

The Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division has reviewed the PDSR for Building 559 (Version 0, dated January 31, 2005). Your letter regarding this PDSR, dated February 9, 2005, was received on February 11, 2005. We have provided comments, agreed on resolutions, and received modifications to the initial PDSR Document. Our comments included concerns with recognition of the asbestos ducts remaining in the slab and performing additional radiological investigations on the exterior and interior to the appropriate PDSP Data Quality Objectives. Based on the information contained in this PDSR and the agreed upon modifications, as well as inclusion of the additional data collected, we are hereby approving the PDSR for Building 559.

As stated in this PDSR, radiologically contaminated areas remain in B559 that will be removed. We expect that, as stated, all of the remaining contamination will be properly identified, protected, segregated, controlled, and removed. It is also our understanding, as stated, that the entire B559 slab will be removed.

It is also our understanding, as discussed in the PDSR, that the remaining asbestos contamination will be properly protected, controlled, and removed.

All demolition activities and related issues, including but not limited to the ultimate disposition /disruption of the under slab process waste lines, sanitary and storm drains, and foundation drains will be discussed and resolved utilizing the consultative process.

If you have any questions regarding this correspondence please contact me at (303) 692-3367, Denise Onyskiw at (303) 692-3371 or (303) 966-6687, or David Kruchek at (303) 692-3328.

Sincerely,

Steven H. Gunderson
RFCA Project Coordinator

cc: Warren Seyfert, DOE
Dave Shelton, KH
Steve Nesta, KH
J. Mike Swartz, KH

Duane Parsons, KH
Mark Aguilar, EPA
Sam Garcia, EPA
Administrative Records Building T130G

ADMIN RECORD

5400

1/22

B559-A-000058

STATE OF COLORADO

Owens, Governor
Douglas H. Bénévento, Executive Director

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Laboratory and Radiation Services Division
8100 Lowry Blvd.
Denver, Colorado 80230-6928
(303) 692-3090



Colorado Department
of Public Health
and Environment

February 14, 2005

Mr. Joseph Legare
Director, Project Management Division
U.S. Department of Energy, Rocky Flats Project Office
10808 Highway 93, Unit A
Golden, CO 80403-8200

RE: B559 & B561 Facility Disposition RSOP Notification

Dear Mr. Legare:

Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division has reviewed your February 2, 2005 letter (received February 3, 2005) notifying us that the Facility Disposition RSOP and Component Removal RSOP will be utilized during the demolition of Buildings 559 and 561. We hereby agree that Buildings 559 and 561 may be demolished utilizing the Facility Disposition RSOP and Component Removal RSOP.

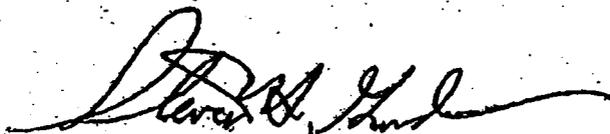
Although we are agreeing that these RSOPs may be utilized during the demolition of Buildings 559 and 561, due to the relatively high levels of remaining contamination, although fixed, we expect appropriate IH and Rad air monitoring to be performed, and notification provided for releases that may be identified. Because of the relatively high levels of remaining fixed contamination, we expect the wind restrictions as stated in the Facility Disposition RSOP (15 MPH) will be followed during demolition of contaminated areas of these buildings or removal of contaminated equipment. We also expect the high contamination areas of the slab to be properly protected (with metal plates as well as plywood or equivalent cushioning material) during building demolition, and these areas of the slab will be saw cut rather than "jack hammered" to the extent practicable. Due to the presence of contamination in the slabs of these buildings, it is expected that track equipment will not be allowed on the contaminated areas of the slab without proper protection of the slab to prevent disturbing the contamination. It is also our understanding that the remaining contaminated equipment (ducts, platens, etc) will be removed in whole, or (if size reduced) the potential for releases of contamination from the interior surfaces, as well as exterior surfaces, will be minimized by liberal use of foam or fixatives. We also expect liberal use of fixatives, as well as any other measures, during demolition and slab removal activities and on any remaining contaminated debris during work stoppages (either during the day or overnight).

Post-it® Fax Note	7671	Date	2/14/2005
To	Dr. Joe Legare	From	D. Krueger
Co./Dept.	R155	Co.	CPHE
Phone #		Phone #	
Fax #		Fax #	

As stated in your letter, demolition activities and associated issues will be discussed and resolved utilizing the consultative process.

If you have any questions regarding this correspondence please contact me at (303) 692-3367, Denise Onyakiw at (303) 966-6687 or David Kruchek at (303) 692-3328.

Sincerely,



Steven H. Gunderson
RFCA Project Coordinator

cc: Gary Morgan, DOE
Mark Aguilar, EPA
Sam Garcia, EPA
Duane Parsons, KH

J. Mike Swartz, KH
Dave Shelton, KH
Steve Nesta, KH
Administrative Records Building T130G

Revised 09/05

CORRES. CONTROL
INCOMING LTR NO.

RECEIVED

2005 OCT -3 P 4:08

STATE OF COLORADO

00477 RF 05

Bill Owens, Governor
Douglas H. Benevento, Executive Director

DUE DATE

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

ACTION

4300 Cherry Creek Dr. S. Laboratory and Radiation Services Division
Denver, Colorado 80246-1530 8100 Lowry Blvd.
Phone (303) 692-2000 Denver, Colorado 80230-6928
TDD Line (303) 691-7700 (303) 692-3090
Located in Glendale, Colorado



Colorado Department
of Public Health
and Environment

DIST.	LTR	ENC
BERARDINI, J.H.	X	
BOGHAR, E.S.	X	
BROOKS, L.	X	
CROCKETT, G. A.	X	
DECK, C. A.	X	
DEGENHART, K. R.	X	
FERREBA, D. W.	X	
GIACOMINI, J. J.		
GILPIN, H.		
LINDSAY, D. C.	X	
LONG, J. W.		
NESTA, S.	X	
SHELTON, D. C.	X	
TUOR, N. R.	X	
WARD, D.	X	
WIEMELT, K.	X	
C.	X	

<http://www.cdph.state.co.us>

September 26, 2005

Mr. John Rampe
Director, Project Management Division
U.S. Department of Energy, Rocky Flats Project Office
12101 Airport Way, Unit A
Broomfield, CO 80021-2583

RE: Closeout Report for Building 559 Cluster - Approval

Dear Mr. Rampe:

The Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division has reviewed your letter, and the Closeout Report for Building 559 Cluster, dated June 2005, as well as your letter dated September 12, 2005 with responses to our comments. The Building 559 Cluster includes Buildings 528, 559, 561, and 562. Based on the information provided in these two documents, we are approving the Closeout Report for Building 559 Cluster.

If you have any questions regarding this correspondence please contact me at (303) 692-3328 or Denise Onyskiw at 303-692-3371.

Sincerely,

David A. Kruchek
Acting Rocky Flats Oversight Unit Leader

cc: Richard Schassburger, DOE
Mark Aguilar, EPA
Steve Nesta, KH
Sam Garcia, EPA
Administrative Records - Mountain View

Karen Wiemelt, KH
Dave Shelton, KH
David Abelson, RFCLOG
Carl Spreng, CDPHE

COR. CONTROL	X
ADMIN. RECORD	X

Reviewed for Addressee
Corres. Control RFP

10/3/05 *dc*
Date By

DOE ORDER #

5400.1

ADMIN RECORD

1/32

CORRES. CONTROL
INCOMING LTR NO.

20 328 RF 05

DUE DATE

ACTION



Department of Energy

ROCKY FLATS PROJECT OFFICE
12101 AIRPORT WAY, UNIT A
BROOMFIELD, COLORADO 80021-2583

JUN 21 2005

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2005 JUN 28 P 2

RESPONDENT
CONTROL

05-DOE-00375

DIST.	LTR	ENC
BERARDINI, J.H.	X	X
BOGNAR, E.S.	X	X
BROOKS, L.	X	X
CARPENTER, M.	X	X
CIUCCI, J.A.		
CROCKETT, G. A.	X	X
DECK, C. A.	X	X
DEGENHART, K. R.	X	X
DEL VECCHIO, D.		
FERRERA, D. W.	X	X
GIACOMINI, J. J.		
GILPIN, H.		
LINDSAY, D. C.	X	X
LONG, J. W.		
NESTA, S.	X	X
SHELTON, D. C.	X	X
TUOR, N. R.	X	X
WARD, D.	X	X
WIEMELT, K.	X	X
ZAHM, C.	X	X

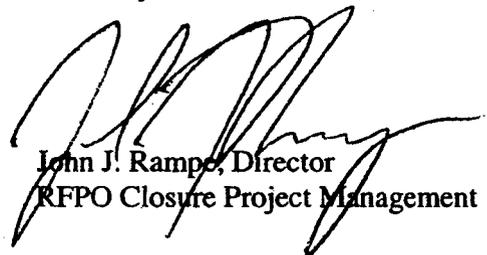
Mr. Steven H. Gunderson
Rocky Flats Cleanup Agreement Project Coordinator
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

Dear Mr. Gunderson:

Please find enclosed a completed Rocky Flats Cleanup Agreement Type 2 Disposition
Closeout Report provided for your approval for Building 559.

Questions may be directed to Gary Morgan, Rocky Flats Project Office, at (303) 966-6003.

Sincerely,



John J. Rampo, Director
RFPO Closure Project Management

Enclosure

cc w/o Encl.:
S. Nesta, K-H RISS
C. Freiboth, K-H RISS
K. Wiemelt, K-H RISS
M. Aguilar, USEPA
D. Abelson, RFCLOG

COR. CONTROL	X	X
ADMIN. RECORD	X	X

Reviewed for Addressee
Corres. Control RFP

6-28-05 DB
Date By

cc w/Encl.:
G. Morgan, PS, RFPO
D. McCranie, HQCPM, RFPO
Administrative Record

Ref. Ltr. #
05 RF 00551

DOE ORDER #
5400.1



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2005 JUN 13 A 7:57

CORRESPONDENCE
CONTROL

JUN - 7 2005

05-RF-00551

Gary Morgan, Functional Lead
Cadre Project Management Division
DOE, RFPO

TRANSMITTAL OF THE FINAL CLOSEOUT REPORT FOR BUILDING 559 -- DWF-042-05

Enclosed are four copies of the Final Closeout Report for the Type 2 Building 559.

The report is submitted to document completion of Deactivation and Decommissioning activities for Building 559. Transmittal to the Colorado Department of Health and Environment (CDPHE) and the Environmental Protection Agency (EPA), in accordance with the Rocky Flats Clean-Up Agreement (RFCA), is requested.

If you have any questions, please contact Steve Nesta at extension 6386.

A handwritten signature in cursive script that reads 'Dennis W. Ferrera'.

Dennis W. Ferrera
Vice President and Project Manager
Remediation, Industrial D&D, and Site Services

SMN:pvt

Enclosure:
As Stated

Orig. and 1 cc - Gary Morgan

cc:
John Rampe

**Final Project Closeout Report
For
Building 559 Cluster**

Revision: 0

June 2005

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I. Introduction

The 559 Cluster was located on the north half of the Rocky Flats Environmental Technology Site (RFETS), just to the west of Building 707. The structures within the 559 Cluster consist of Buildings 559, 562, 561 and 528.

Building 559 was the largest building in this cluster and was built to house plutonium analytical laboratories. Building 559 was constructed in 1967 and had a floor area of approximately 32,600 sq. ft. The Plutonium Analytical Laboratory was first operated in 1968. The building was a rectangular single story structure constructed of reinforced concrete block. The original building was 240 ft. long by 120 ft. wide.

Three additions were made to the original building structure. The first addition, in 1969, added the dock area on the South wall of the original structure and room 103E. A subsequent addition, in 1971, added the lunch room, women's locker room and a storage room. The third addition, in 1973, added the 561 Filter Plenum Building. The vertical framing of the building consisted of poured-in-place reinforced concrete columns standing on footing slabs. Reinforcing steel rods tied these columns to both the foundation slabs and foundation walls. The south exterior wall of the building was reinforced concrete block construction. The roof was reinforced concrete beams resting on the vertical structural columns supports. The floor was a poured reinforced concrete. Two underground tunnels served the 559 building. The first served as an air recirculation tunnel. The tunnel ran east to west under the laboratory area. This tunnel was 192 feet long. A second 26 foot tunnel connected the southeast corner of Building 559 to the filter plenums in Building 561.

Building 561 was a one story building 61 feet wide by 93 feet long. It was connected to 559 via a tunnel at the southeast corner of the building. A Fire Water Plenum Deluge Tank was located in Building 561. This was a 2000-gallon raschig ring filled tank for fire water plenum deluge storage. Building 561 contained four separate filter plenums. The floor was poured reinforced concrete.

Building 562 was a small one story building housing the emergency generator supporting the 559 complex ventilation systems. The building was located east of building 561. The generator, batteries and fuel tanks were removed by PU&D for sale.

Building 528 was the former waste holding pit for liquid waste from Building 559 and 561. The structure was located approximately 80 percent below grade, with a small vestibule and stairwell providing access to the building. 528 Building was located directly south east of Building 559.

Closure of the facility was completed in accordance with the Rocky Flats Cleanup Agreement Standard Operating Protocol (RFCA RSOP) for Component Removal, Size Reduction and Decontamination Activities and Facility Disposition. Integrated Work

STATE OF COLORADO

Bill Owens, Governor
Douglas H. Benevento, Executive Director

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Laboratory Services Division
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Denver, Colorado 80230-6928
(303) 692-3090

<http://www.cdph.state.co.us>



Colorado Department
of Public Health
and Environment

April 26, 2005

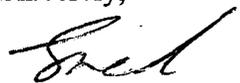
David C. Shelton
Vice President, Environmental Systems and Stewardship
Kaiser-Hill Company, LLC
10808 highway 93, Unit B
Golden, Colorado 80403-8200

RE: Final Compliance Order on Consent

Dear Mr. Shelton,

Enclosed please find your fully executed copy of the Final Compliance Order on Consent between the Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division and Kaiser-Hill Company, LLC regarding the Rocky Flats Environmental Technology Site. Joan Sowinski has initialed and dated the requested modification to paragraph number nineteen (19).

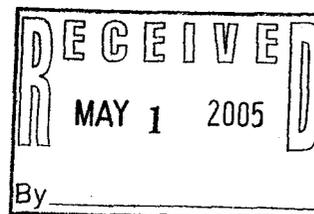
Sincerely,


Fred Dowsett
Compliance Coordinator
Hazardous Materials and Waste
Management Division

enclosure

cc w/ out enclosure:

Dan Miller, Office of the Attorney General
Kris Figur, HMWMD





COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION

COMPLIANCE ORDER ON CONSENT

Number: 05-04-06-01

IN THE MATTER OF ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

The Colorado Department of Public Health and Environment ("CDPHE"), through the Hazardous Materials and Waste Management Division ("Division"), issues this Compliance Order on Consent ("Consent Order"), pursuant to the Division's authority under section 25-15-308(2), C.R.S. of the Colorado Hazardous Waste Act ("the Act"), sections 25-15-101 to 515, C.R.S., and its implementing regulations, 6 CCR 1007-3 ("the Regulations"), with the express consent of Kaiser-Hill Company, LLC ("K-H"). The Division and K-H may be referred to collectively as "the Parties."

STATEMENT OF PURPOSE

1. The mutual objective of the Parties in entering into this Consent Order is to resolve the alleged violations of the Act cited herein and in an August 4, 2004 Compliance Advisory issued by the Division.

DIVISION'S FINDINGS OF FACT AND DETERMINATION OF VIOLATIONS

2. Based upon the Division's investigation into and review of the compliance issues identified herein, and in accordance with section 25-15-308(2), C.R.S., the Division has made the following determinations regarding violations of the Act and the Regulations associated with K-H or the Rocky Flats Environmental Technology Site ("the Facility").
3. The Facility is an environmental cleanup site located in northern Jefferson County, Colorado, approximately sixteen miles northwest of downtown Denver. The United States Department of Energy ("DOE"), as an agency of the United States government, owns and, along with certain contractors, operates the Facility.
4. On July 1, 1995, K-H assumed certain responsibilities at the Facility pursuant to a contract with DOE. K-H, along with DOE and others, operates the Facility as that term is defined in 6 CCR 1007-3, section 260.10. At all times relevant to the violations cited herein, K-H was a Colorado limited liability company organized in the state of Colorado and in good standing.

5. On May 30, 1997, the Division issued State Hazardous Waste permit #CO-97-05-30-01 ("the Permit") to DOE, K-H and three other co-permittees. The three other co-permittees were deleted from the Permit effective November 3, 2000, leaving DOE and K-H the sole entities responsible for requirements of the Permit.
6. DOE sent a letter to the Division dated July 12, 2004 stating that eleven glove boxes in building 559 at the Facility had been removed without formal notification to the Department.
7. Failure to provide the required Notification or submit a Closure Description Document within forty-five (45) days prior to closure of two (2) RCRA permitted glove boxes in Treatment Unit S002 and Unit 559.1 constitutes a violation of Permit Condition Part II.L.3, Part X.B.2, and Part X.B.3.
8. Failure to provide the required Notification or submit a Closure Description Document within forty-five (45) days prior to closure of nine (9) interim status glove boxes in Units 90.29 and 90.102 constitutes a violation of the Closure Plan for Interim Status Units at the Rocky Flats Environmental Technology Site, revised February 15, 2000, Section B.3.
9. The Division accepts that DOE's July 12, 2004 letter constitutes a voluntary disclosure for the purposes of section 25-1-114.5, C.R.S. and therefore the violations cited in paragraphs seven (7) or eight (8) above exclusively qualify for immunity from civil and administrative penalties.
10. K-H failed to close the two RCRA permitted glove boxes in Treatment Unit S002 and Unit 559.1 in accordance with the requirements of Permit Condition Part II.L.3, Part X.B.2, and Part X.B.3.
11. K-H failed to close the nine interim status glove boxes in Units 90.29 and 90.102 in accordance with the requirements of the Closure Plan for Interim Status Units at the Rocky Flats Environmental Technology Site, revised February 15, 2000, Section B.3, in violation of the interim status requirements for closure (6 CCR 1007-3, Part 265 Subpart G).

ORDER and AGREEMENT

12. Based on the foregoing factual and legal determinations, pursuant to its authority under section 25-15-308, C.R.S., and in satisfaction of the violations cited herein, the Division orders K-H to comply with all provisions of this Consent Order, including all requirements set forth below.
13. K-H agrees to the terms and conditions of this Consent Order. K-H agrees that this Consent Order constitutes an order issued pursuant to section 25-15-308(2), C.R.S., and is an enforceable requirement of Part 3 of the Act. K-H also agrees not to challenge directly or

collaterally, in any judicial or administrative proceeding brought by the Division or by K-H against the Division:

- a. the issuance of this Consent Order;
- b. the factual and legal determinations made by the Division herein; and
- c. the Division's authority to bring, or the court's jurisdiction to hear, any action to enforce the terms of this Consent Order under the Act.

14. Notwithstanding the above, K-H does not admit to any of the factual or legal determinations made by the Division herein, and any action undertaken by K-H pursuant to this Consent Order shall not constitute evidence of fault or admission of liability by K-H with respect to the conditions of the Facility.

Compliance Requirements

15. From the effective date of this Order on Consent, K-H shall close all interim status and permitted units in accordance with the closure requirements of 6 CCR1007-3, Part 265, Subpart G, or the Permit, as appropriate.

Administrative Penalty and Supplemental Environmental Project Requirements

16. In addition to all other funds necessary to comply with the requirements of this Consent Order, K-H shall pay Ten Thousand Four Hundred Dollars (\$10,400.00) in the form of expenditures on Supplemental Environmental Projects ("SEPs") in lieu of administrative penalties in order to achieve settlement of this matter.

17. K-H shall perform the SEP identified below, which the Parties agree is intended to secure significant environmental or public health protection and improvements:

- a. K-H shall donate Ten Thousand Four hundred Dollars (\$10,400.00) to the Tri-County Health Department for use in a "Colorado Mercury Thermometer Collection Program." K-H shall send the payment of \$10,400.00, within thirty (30) days of the effective date of this Consent Order, to the attention of Judie Willden, Tri-County Health Department, 7000 E. Belleview Ave., Suite 301, Greenwood Village, Colorado 80111.
- b. K-H shall include with the donation a cover letter:
 - i. identifying the monies for the above-described project, and
 - ii. requesting that Tri-County Health submit to the Division a copy of the planned project report describing the implementation of the "Colorado Mercury Thermometer Collection Program."
- c. K-H shall provide the Division with a copy of the cover letter and check within thirty (30) days of the effective date of this Consent Order.

18. K-H hereby certifies that, as of the date of this Consent Order, it is not under any existing legal obligation to perform or develop the SEP. K-H further certifies that it has not received,

and will not receive, credit in any other enforcement action for the SEP. In the event that K-H has, or will receive credit under any other legal obligation for the SEP, K-H shall pay the Ten Thousand Four Hundred Dollars \$10,400.00 to the Division as an administrative penalty within thirty (30) calendar days of receipt of a demand for payment by the Division. Method of payment shall be by certified or cashier's check drawn to the order of "Colorado Department of Public Health and Environment," and delivered to:

Kristine Figur
Colorado Department of Public Health and Environment
Hazardous Materials and Waste Management Division
Mail Code: HMWMD-CP-B2
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

19. K-H shall include the following language in any public statement, ^{written} ~~oral or written~~, making reference to the SEP: "This project was undertaken in connection with the settlement of an enforcement action taken by the Colorado Department of Public Health and Environment for violations of the Colorado Hazardous Waste Act."

DCS
4/25/05
JWS
4/26/05

SCOPE AND EFFECT OF CONSENT ORDER

20. The Parties agree and acknowledge that this Consent Order constitutes a full and final settlement of the violations alleged herein.
21. This Consent Order constitutes a final agency order or action upon execution by K-H and the Division. Any violation of the provisions of this Consent Order by K-H, including any false certifications, shall be a violation of a final order or action of the Division for the purpose of section 25-15-308, C.R.S., and may result in the assessment of administrative penalties of up to fifteen thousand dollars per day for each day of such violation, or civil penalties of up to twenty five thousand dollars per day for each day of such violation pursuant to section 25-15-309, C.R.S.
22. The Parties' obligations under this Consent Order are limited to the matters expressly stated herein or in approved submissions required hereunder.
23. The Division's approval of any submission, standard, or action under this Consent Order shall not constitute a defense to, or an excuse for, any prior violation of the Act, or any subsequent violation of any requirement of this Consent Order or the Act.
24. Notwithstanding paragraph 14 above, the violations alleged in this Consent Order will constitute part of K-H's compliance history for purposes related to future enforcement actions by the Division. This includes considering the violations alleged above in assessing a penalty for any subsequent violations against K-H, in accordance with the provisions of

section 25-15-309, C.R.S. K-H agrees not to challenge the use of the alleged violations for purposes described in this paragraph.

**LIMITATIONS, RELEASES AND RESERVATION OF RIGHTS AND
LIABILITY**

25. Upon the effective date of this Consent Order, and during its term, this Consent Order shall stand in lieu of any other enforcement action by the Division with respect to the specific instances of violations alleged herein. The Division reserves the right to bring any action to enforce this Consent Order, including actions for penalties and/or injunctive relief.
26. The Department releases K-H from any further liability or obligations under the Act with respect to the alleged violations cited in this order upon the Department's determination that K-H has complied with the requirements of this Consent Order. This Consent Order does not grant any release of liability for any violations not specifically cited herein.
27. Nothing in this Consent Order shall preclude the Division from imposing additional requirements necessary to protect human health or the environment pursuant to the terms of this Consent Order. Nor shall anything in this Consent Order preclude the Division from imposing additional requirements in the event that new information is discovered that indicates such requirements are necessary to protect human health or the environment.
28. K-H reserves its rights to contest any legal or factual determination and to assert any defenses in any proceedings other than proceedings described in paragraph 13.
29. Upon the effective date of this Consent Order, K-H releases and covenants not to sue the State of Colorado or its employees, agents or representatives as to all common law or statutory claims or counterclaims arising from, or relating to, the alleged violations of the Act specifically addressed herein.
30. K-H shall not seek to hold the State of Colorado or its employees, agents or representatives liable for any injuries or damages to persons or property resulting from acts or omissions of K-H, or those acting for or on behalf of K-H, including its officers, employees, agents, successors, representatives, contractors, consultants or attorneys in carrying out activities pursuant to this Consent Order. K-H shall not hold out the State of Colorado or its employees, agents or representatives as (a) a party to any contract entered into by K-H in carrying out activities pursuant to this Consent Order; or (b) an owner, operator or generator of hazardous wastes at the Facility. Nothing in this Consent Order shall constitute an express or implied waiver of immunity otherwise applicable to the State of Colorado, its employees, agents or representatives.

NOTICES

31. Unless otherwise specified, any report, notice or other communication required under the Consent Order shall be sent to:

For the Division:

Harlen Ainscough, Environmental Compliance Officer
Colorado Department of Public Health and Environment
Mail Code: HMWMD-B2
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

For K-H:

Vice-President, Environmental Systems and Stewardship
Kaiser-Hill Company, LLC
10808 Highway 93, Unit B
Golden, Colorado 80403-8200

With a copy to:

Environmental Counsel
Kaiser-Hill Company, LLC
10808 Highway 93, Unit B
Golden, Colorado 80403-8200

MODIFICATIONS

32. This Consent Order may be modified only upon mutual written agreement of the Parties.

COMPLETION OF REQUIRED ACTIONS

33. K-H shall submit a Notice of Completion to the Division upon satisfactory completion of all requirements in paragraph 17 of this Consent Order. This Consent Order will terminate when the Division issues a written determination that the requirements of paragraph 17 have been met. The Division shall either accept or reject K-H's Notice of Completion in writing within thirty (30) days of receipt. If the Division rejects K-H's Notice of Completion, it shall include in its notice a statement identifying the requirements that the Division considers incomplete or not satisfactorily performed and a schedule for completion. K-H shall, within fifteen (15) days of receipt of the Division's rejection, either:

- a. submit a notice of acceptance of the determination; or
- b. submit a notice of dispute.

34. If K-H fails to submit either of the above notices within the specified time, it will be deemed to have accepted the Division's determination.
35. If K-H files any notice of dispute pursuant to paragraph 33, the notice shall specify the particular matters in the Division's determination that K-H seeks to dispute, and the basis for the dispute. Matters not identified in the notice of dispute shall be deemed accepted by K-H. The Division and K-H shall have thirty (30) calendar days from the receipt by the Division of the notification of dispute to reach an agreement. If agreement cannot be reached on all issues within this thirty (30) day period, the Division shall confirm or modify its decision within an additional fourteen (14) days, and the confirmed or modified decision shall be deemed effective and subject to appeal in accordance with the Act and the APA.

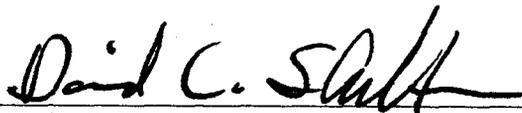
NOTICE OF EFFECTIVE DATE

36. This Consent Order shall be effective on the date signed by the last party. In the event that a party does not sign this Consent Order within thirty (30) calendar days of the other party's signature, this Consent Order becomes null and void.

BINDING EFFECT AND AUTHORIZATION TO SIGN

37. This Consent Order is binding upon K-H and its successors in interest, and assigns. The undersigned warrant that they are authorized to legally bind their respective principals to this Consent Order. This Consent Order may be executed in multiple counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same Consent Order.

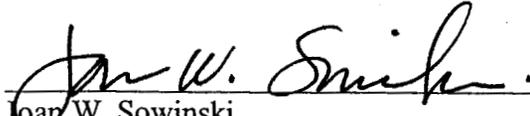
FOR KAISER-HILL COMPANY, LLC.:



David C. Shelton
Vice-President, Environmental Systems and Stewardship

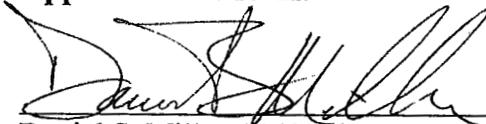
4/25/05
Date

FOR THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT:


Joan W. Sowinski
Federal Facilities Program Manager
Hazardous Materials and Waste
Management Division

6 April '05
Date

Approved as to form:


Daniel S. Miller #14225*
First Assistant Attorney General
Office of the Attorney General
Natural Resources and Environment Section
Attorneys for the Division

4/6/05
Date

1525 Sherman Street, 5th Floor
Denver, Colorado 80203
Telephone: (303) 866-5014

*Counsel of Record

Revised 12/03

CORRES. CONTROL
INCOMING LTR NO.

00334RF04

DUE DATE

ACTION

RECEIVED

2004 AUG 10 A 10:27

STATE OF COLORADO

CORRESPONDENCE
CONTROL

Bill Owens, Governor
Douglas H. Benevento, Executive Director

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

4300 Cherry Creek Dr. S.
Denver, Colorado 80246-1530
Phone (303) 892-2000
TDD Line (303) 691-7700
Located in Glendale, Colorado

Laboratory Services Division
8100 Lowry Blvd.
Denver, Colorado 80230-6928
(303) 692-3090

http://www.cdphe.state.co.us



Colorado Department
of Public Health
and Environment

Certified Mail # 70011140 0003965

DIST.	LTR	ENC
BERARDINI, J.H.	X	X
BOGNAR, E.S.	X	X
BROOKS, L.	X	X
BUTLER, L.		
CARPENTER, M.	X	X
CROCKETT, G. A.		
DECK, C. A.	X	X
DEGENHART, K. R.		
DIETER, T. J.		
FERRERA, D. W.	X	X
GIACOMINI, J. J.		
LINDSAY, D. C.		
LONG, J. W.		
LYLE, J. L.		
MARTINEZ, L. A.	X	X
NAGEL, R. E.	X	X
NESTA, S.	X	X
NORTH, K.	X	X
RODGERS, A. D.		
HELTON, D. C.	X	X
PEARS, M. S.		
PIZZUTO, V.M.		
TOBIN, M.		
TUOR, N. R.		
WEMMELT, K.		
WILLIAMS, J. L.		
ZAHM, C.	X	X

August 4, 2004

Mr. Joseph A. Legare, Director
RFPO Project Management
Rocky Flats Project Office
U.S. Department of Energy
10808 Highway 93, Unit A
Golden, Colorado 80403-8200

Ms. Karan North ✓
Kaiser Hill
Rocky Flats Environmental Technology Site
10808 Highway 93, Unit B
Golden, Colorado 80403-8200

Re: Compliance Advisory for Closure of Glove Box Units in Building 559

Dear Ms. North and Mr. Legare:

We are in receipt of Mr. Legare's letter of July 12, 2004, to Mr. Steven Gunderson regarding RSOP notification and RCRA closure of glove box units in building 559. The letter seeks approval for both RCRA closure for the glove box units and the RSOP notification. Such notification and approvals are required prior to commencement of the activities for which approval is sought. In this case, the work on removal of the units was completed prior to the request for approval. We believe these removal actions violated Colorado hazardous waste requirements as more particularly described in the attached Compliance Advisory.

The request for approval of the RSOP Notification and RCRA closures of the glove boxes is denied because of these violations and because the hazardous waste closure requirements for these units must be met before the closure can be approved.

The failure to obtain authorization for closure activities is particularly troubling since Treatment Unit S002, Glovebox C40, was a RCRA permitted treatment unit operated from October 2003 to February of this year. The unit is also listed and fully described in Section V.C.I of the new RCRA permit issued on June 23, 2004, as a "process ... designed to immobilize aqueous and/or organic/oil waste liquids (hazardous and mixed)....." The requirement to properly close this RCRA unit should have been

COR. CONTROL	X	X
ADMIN. RECORD		
PATS/130		

Reviewed for Addressee
Corres. Control RFP

8/10/04
Date By

Ref. Ltr. #

DOE ORDER #

5400.1

Re: Compliance Advisory for Closure of Glove Box Units in Building 559

Page 2

July 29, 2004

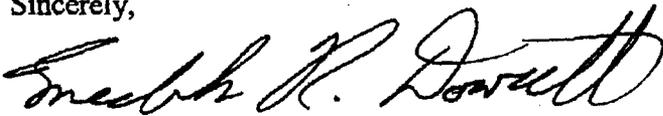
readily apparent considering these two facts. The obligation to properly close the other units should also have been obvious.

In addition to not meeting administrative requirements for closure, compliance with technical requirements of closure has not been adequately demonstrated. The information submitted with the July 12, 2004 letter was not sufficiently detailed to allow for a determination that the units met the closure requirements for RCRA-regulated units. The information provided appears to indicate that only radiological analysis was conducted after decontamination of the units.

The requested action under the Compliance Advisory is to provide additional information so that we can better understand the events that resulted in the unapproved closures and to make a determination as to what additional information may be necessary to approve the closures.

If you would like to schedule an Informal Conference to discuss this advisory, please contact Harlen Ainscough at (303) 692-3337. If you have questions regarding the advisory, you may contact me at (303) 692-3342. I urge you to give this matter your serious attention.

Sincerely,



Frederick R. Dowsett, Compliance Coordinator
Hazardous Materials & Waste Management Division

cc: Dan Miller, AGO
Randy Lamdin, EPA

HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION
COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
4300 CHERRY CREEK DRIVE SOUTH, DENVER, CO 80222-1530

COMPLIANCE ADVISORY

FACILITY: Rocky Flats Environmental Technology Site (RFETS) U. S. Department of Energy	EPA ID#: CO7890020526	DATE: August 4, 2004
	ADDRESS: 10808 Highway 93, Unit A	
	Golden Colorado 80403-8200	

This Compliance Advisory provides notice related to information provided by the above named facility on the date shown. We advise you that the Division believes that the "Deficiencies" listed below are violations of Colorado hazardous waste laws. Division personnel have reviewed the facts in respect to the July 12, 2004 submittal and this notice may be revised to include additions or clarifications resulting from review of the required response to this Advisory.

Please be aware that you are responsible for complying with the State hazardous waste regulations and that there are substantial administrative and civil penalties for failing to do so. Section 25-15-309, C.R.S. provides that any person who violates Section 25-15-308, C.R.S., which includes the Colorado Hazardous Waste Act ("the Act"), Sections 25-15-101 to 316, C.R.S., and the Colorado Hazardous Waste Regulations, 6 CCR 1007-3, may be subject to an administrative penalty of not more than \$15,000 per violation per day during which such violation occurs or to a civil penalty of not more than \$25,000 per violation per day during which such violation occurs. The issuance of this Compliance Advisory does not limit or preclude the Department from pursuing its enforcement options concerning this compliance evaluation including issuance of a Compliance Order and assessment of penalties. Also, this Compliance Advisory does not constitute a bar to enforcement action for conditions that the inspectors did not observe or evaluate, or conditions found during future inspections of your facility.

To avoid additional enforcement action or reduce the penalties described above you must either correct the "Deficiencies" within a reasonable time, or you must demonstrate to the Division that the "Deficiencies" are not violations of Colorado's hazardous waste laws.

To close out this Compliance Advisory, we encourage you to contact the Compliance Officer listed below, and where necessary, schedule a meeting:

- A) To discuss the Compliance Advisory and answer any questions you may have;
- B) To develop a schedule for correcting the "Deficiencies"; or
- C) To submit information necessary to successfully show that the "Deficiencies" are not violations of Colorado's hazardous waste laws.

Harlen R. Ainscough , Compliance Officer

Hazardous Materials and Waste Management Division
Colorado Department of Public Health & Environment
Mail Code: HMWMD-HWC-B2
4300 Cherry Creek Drive South
Denver, Colorado 80222-1530
Tel: (303) 692-3337

Failure to respond in a timely fashion to this Compliance Advisory will be considered in any subsequent enforcement action and the assessment of administrative and/or civil penalties.

HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION
COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
4300 CHERRY CREEK DRIVE SOUTH, DENVER, CO 80222-1530

COMPLIANCE ADVISORY

FACILITY: Rocky Flats Environmental Technology Site (RFETS) U. S. Department of Energy	EPA ID#: CO7890020526	DATE: August 4, 2004
DEFICIENCIES, POTENTIAL DEFICIENCIES, OR CONCERNS NOTED		

DEFICIENCIES

1. **Citation:** RCRA Permit No. CO-97-05-30-01, Permit Condition Part II.L.3, Part X.B.2 and Part X.B.3, and/or RFCA Standard Operating Protocol for Facility Component Removal, Size Reduction and Decontamination Activities, May 27, 2003, Section 8.3. Failure to provide Notification or submit a Closure Description Document 45-days prior to closure of RCRA permitted units in accordance with the permit.
2. **Citation:** Closure Plan for Interim Status Units at the Rocky Flats Environmental Technology Site, Revised February 15, 2000, Section B.3 or RFCA Standard Operating Protocol for Facility Component Removal, Size reduction and Decontamination Activities, February 4, 2001, Section 8.3. Failure to provide Notification 45-days prior to closure of interim status units in accordance with the closure plan.

Deficiency:

A facility letter, dated July 12, 2004, stated that eleven glove boxes in Building 559 had been removed without prior review and approval by the Hazardous Materials and Waste Management Division (the Division). Two glove boxes, Treatment Unit S002 and Unit 559.1, were RCRA permitted units. Nine additional glove boxes, in Units 90.29 and 90.102, were mixed residue consent order units subject to interim status.

Failure to obtain advance authorization for closure of the permitted units, including authorization for the technical procedures utilized to prevent the release of hazardous wastes or hazardous constituents from each unit, constitutes a violation of the facility's hazardous waste permit (Permit). A notification submitted pursuant to Section 8.3 of the RFCA Standard Operating Protocol for Facility Component Removal, Size Reduction and Decontamination Activities would have provided a specific procedure for meeting the closure requirements of the permit. However, no such notification was received by the Division prior to the implementation of closure activities for these glove boxes.

Closure of the interim status units without prior Division authorization constitutes a violation of the Closure Plan for Interim Status Units at the Rocky Flats Environmental Technology Site (Closure Plan), or alternatively, violation of the RFCA Standard Operating Protocol for Facility Component Removal, Size Reduction and Decontamination Activities (Protocol).

**HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION
COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
4300 CHERRY CREEK DRIVE SOUTH, DENVER, CO 80222-1530**

COMPLIANCE ADVISORY

FACILITY: Rocky Flats Environmental Technology Site (RFETS) U. S. Department of Energy	EPA ID#: CO7890020526	DATE: August 4, 2004
DEFICIENCIES, POTENTIAL DEFICIENCIES, OR CONCERNS NOTED		

REQUESTED ACTIONS

Within 30 days of the receipt of this Compliance Advisory, RFETS shall provide the following information, (identified by individual glove box as appropriate):

1. Provide the following information for each regulated unit (Treatment Unit S002, Unit 559.1, Unit 90.29 and Unit 90.102):
 - a. The section(s) of work packages that prescribe the specific work to have been performed.
 - b. The names and positions of each person that approved the work to begin.
 - c. The date(s) on which closure actions were implemented.
 - d. The names of each person that performed the work.
 - e. All written records of actual work performed (not work package requirements).
 - f. In the absence of written records, statements by those that performed the work, describing the sequence and dates of events/actions.
 - g. Results of chemical analyses for RCRA hazardous constituents, if any, after decontamination.
 - h. The names of each person that approved the work as satisfactorily completed.
 - i. How, when, and by whom, the failure to notify was discovered.
 - j. How, when, by whom, and to whom, the failure to notify was reported to the Hazardous Materials & Waste Management Division (HMWMD).
2. A complete copy of the Operating Record including all inspection records for Glovebox C40 of Treatment Unit S002.
3. The names all RFETS personnel who had responsibility for, or who performed any functions related to, the operation or maintenance of Glovebox C40 of Treatment Unit S002, from the time RCRA treatment/storage operations commenced in Glovebox C40 through decommissioning.
4. The training records and hazardous waste job description for each person identified under Item 3
5. The Material Safety Data Sheet, or equivalent, for "KW solution".

5002
559

CORRES. CONTROL
OUTGOING LTR. NO.

DOE ORDER # 4700.1

04-RF-00693



DIST.	LTR	ENC
DIET		
FEI	J.W.	X
LINL	J.	
LYLE, J.		
MARTINEZ, L. A.		
PARKER, A.		
PIZZUTO, V.		
SHELTON, D.C.		
SPEARS, M.S.		
TUOR, N. R.		

June 29, 2004

04-RF-00693

BEAN, C.		
BUTLER, J. L.		
DECK, C.		
FRANCIS, M.		
FREIBOTH, C.		
GEIS, A.		
GIBBS, F.	X	
HUME, J.		
HUMSTON, T.		
HUNTER, D.		
KNAPP, S.		
LINSIBGLER, H.		
MARSCHALL, J.R.		
MYERS, K.		
NESTA, S.	X	X
O'BRIEN, J.J.		
OWAN, K.		
PLAPPERT, R.		
PRIMPSE, A.		
RIC LA, R.	X	X
RO. A.	X	X
SNYDER, D.P.		
SWARTZ, J.M.		
WIEMELT, K.		
SELAN, J.		
KEHLER, K	X	X

Gary Morgan, Functional Lead
Cadre Project Management Division
DOE, RFPO

RSOP FOR COMPONENT REMOVAL, SIZE REDUCTION, AND DECONTAMINATION
ACTIVITIES NOTIFICATION LETTER FOR RCRA CLOSURE OF B559 GLOVEBOXES
FEG-020-04

As part of building D&D in B559, gloveboxes were removed as low level waste. This activity occurred without formal notification to CDPHE for RCRA closure on these glovebox units. Attached is the information that would have been provided in the RSOP notification for component removal, size reduction, and decontamination, including RCRA closure. The information demonstrates that these units were closed in accordance with the substantive requirements of the RSOP and applicable regulations for meeting debris treatment allowing the gloveboxes to be managed as straight low level waste.

This information needs to be transmitted to CDPHE for applicable follow-up information from the fact finding on this issue as well as RSOP concurrence. RCRA issues under RFCA have a 30 day review time.

Please contact Steve Nesta x6386 with questions or concerns.

CORRES. CONTROL	X	X
ADMIN RECRD/T130G	X	X
TRAFFIC		
PATS#130		

CLASSIFICATION:	
UCNI	
UNCLASSIFIED	
CONFIDENTIAL	
SECRET	

Frank E. Gibbs
Frank E. Gibbs
Deputy Project Manager
Remediation, Industrial D&D, and Site Services

AUTHORIZED CLASSIFIER
SIGNATURE:

Attachment:
As Stated

Date:
IN REPLY TO RFP CC NO.:

SMN:pvt

ACTION ITEM STATUS:
 PARTIAL/OPEN
 CLOSED

Orig. and 1 cc - Gary Morgan

LTR APPROVALS:

cc:
Joseph Legare

ORIG. & TYPIST INITIALS:
SMN:pvt

559 GLOVEBOXES

BACKGROUND

Closure information concerning the following gloveboxes, from Building 559, should have been submitted to CDPHE in a CDD like document under an RSOP Notification Letter (Component Removal, Size Reduction and Decontamination Activities) for RCRA Closure activities. The referenced gloveboxes are C40 – Treatment Unit S002, C17 – Storage Unit 559.1, M21, M23, and M36 – Mixed Residue Storage Unit 90.102, and E11, E12, E13, E18, E20, and E22 – Mixed Residue Storage Unit 90.29. Although appropriate notification was not completed, the following narrative demonstrates that these units were closed in accordance with the substantive requirements of RSOP and applicable CDPHE regulations.

All gloveboxes were decommissioned under Work Packages that were established for various sets. The following work packages apply to the specified gloveboxes:

- Set 4, Work Package T0108532 – Gloveboxes M23 and M36
- Set 5, Work Package T0108533 – Glovebox C17
- Set 7, Work Package T0109861 – Gloveboxes E11, E12, E13, E18, E20, and E22
- Set 8, Work Package T0109865 – Glovebox C40
- Set 9, Work Package T0109869 – Glovebox M21

All of the referenced work packages have the following steps included:

- 1) Clean out glovebox.
 - a) This step directed that all accountable fissile material, miscellaneous lab waste, and loose lab equipment be removed. An initial wipe down of the glovebox was performed following glovebox clean out as part of housekeeping efforts, utilizing KW solution.
- 2) Perform pre and post decontamination surveys as required to meet SCO and/or Nuclear Material Control and Accountability criteria.
- 3) Decontaminate glovebox.
 - a) This step directed decontamination in accordance with PRO-836-559-GB-001, as applicable and L4029B (Chemical Hygiene Plan, attached). Decontamination solutions may have included cerium nitrate and or KW solution.
 - b) Decontamination could be repeated based on scan values and applicable acceptance criteria as required by Safeguards and Radiological Engineering.
- 4) Encapsulate glovebox with polymer based product.
 - a) This step directs the glovebox to be encapsulated allowing 8-12 hours between first and second application.
- 5) Disassemble/Remove the leaded glass windows, lead shielding, lead gloves, and lead tape as applicable.

MIXED RESIDUE STORAGE

Unit 90.102 – RCRA Closure Plan for Mixed Residue Container Storage Units – Gloveboxes M21, M23, and M36.

- CDPHE allowed the closure of these gloveboxes to be deferred until building D&D (12/19/1996). No inspections were required.
- A WEMS query shows that the only EPA hazardous wastes managed in the unit were D002 and D011.
- M21 part of Set 9, Work Package T0109869
- M23 and M36 part of Set 4, Work Package T0108532
- Historical information indicates that no organics were used in glovebox M21 (see attached reference from Laboratory Manager).
- Historical information indicates glovebox M23 was used to prepare samples for isotopic mass spec analysis, again with no organics involved (use of concentrated mineral acids and 30% peroxides only).
- Historical information indicates that glovebox M36 was used to transfer samples from one glovebox to another, or from one container to another. These samples did not involve any organics.
- All gloveboxes were encapsulated with FireDam™ fixative.
- M21 loaded into X34737 and in unit 559-4174-outside
- M23 loaded into X30821 and shipped to NTS
- M36 loaded into X30551 and shipped to NTS

Unit 90.29 – RCRA Closure Plan for Mixed Residue Container Storage Units – Gloveboxes E11, 12, 13, 18, 20, and 22.

- CDPHE allowed the closure of these gloveboxes to be deferred until building D&D
- A WEMS query shows that the only EPA hazardous wastes managed in the unit were D002, D006, D007 and D008
- (12/19/1996). No inspections were required.
- Part of Set 7, Work Package T0109861.
- Historical information indicates that gloveboxes E11, 12, and 13 were used to prepare samples for metal analysis using inorganic acids and peroxides.
- Historical information indicates that glovebox E18 was used for storage of waste containers and samples after analysis.
- Historical information indicates that glovebox E20 was used for storage of metal TCLP extraction samples, with no chemical additions being made in this glovebox.
- Historical information indicates that glovebox E22 was used for mercury analysis, which involved only inorganic chemicals.
- All gloveboxes were encapsulated with FireDam™ fixative.
- E11, 12, and 13 loaded into X34674 and is in unit 559-4174-outside.
- E18 and 20 loaded into X34675 and is in unit 559-4174-outside.
- E22 loaded into X34711 and is in unit 559-4174-outside.

CONCLUSION

Containers of mixed residue solids were stored in these gloveboxes, until they could be bagged out and properly containerized in permitted storage units. The gloveboxes were not used for any processing activities associated with the mixed residues; all processes prior to and after storage of the residues were associated with various laboratory activities. Based on the closure summary for these gloveboxes (1996), these gloveboxes failed due to staining of the teflon surface, which was attributed to mineral acid spills from the analytical processes that occurred in the gloveboxes

INDIVIDUAL GLOVEBOXES

PERMITTED UNITS

Glovebox C40 – Treatment Unit S002 Oil and/or Aqueous Solidification Process

- Part of Set 8, Work Package T0109865
- The NoChar process was performed as follows: the liquid was poured into a double plastic bag containing NoChar.
- Inspection records from 10/03 to 2/04 were reviewed and indicate no spills or releases.
- Glovebox was encapsulated with FireDam™ fixative.
- Loaded into X33560 and shipped to NTS.

CONCLUSION

This glovebox was permitted for the no-char treatment process (S002) in October 2003, and only operated as a treatment unit until February 2004. All of the inspection records indicate there were no spills or releases. Therefore, the site proposes that this unit be administratively closed based on the review of inspection and laboratory records. Additionally, the glovebox was encapsulated with two layers of FireDam™.

Glovebox C17 – Permitted RCRA Storage Unit 559.1

- Part of Set 5, Work Package T0108533
- Inspection records from 8/91 to 7/03 reviewed.
 - a) Missing 8/97 to 4/98 and 8/94. Chances of a spill occurring during these missing periods is minimal.
 - b) One spill noted on 1/16/96 of 2 mls from X00827, waste type REM, PU waste, D002, cleaned up on 1/16/96.
 - c) See attached White Paper – Lab Cleanup Procedure and Analytical Laboratory Procedure L-4029-B, Section 11, Chemical Spills, Releases, and Accidents for how spills or releases were handled.
- Decontaminated with a KW wipe down.
- Pre decontamination average survey activity = 79,071,730 dpm/100cm²
- Post decontamination average survey activity = 38,670,000 dpm/100cm²
- Glovebox was encapsulated with FireDam™ fixative.
- Loaded into X32317 and shipped to NTS.

CONCLUSION

This glovebox was permitted for storage of waste with the following EPA codes: D002, D004-D011, D034 (RFETS RCRA Permit Part A Application, Rev. 98-1). According to laboratory procedures any potential spills were cleaned up and decontaminated in order to prevent cross-contamination. Therefore, the site proposes that this unit could be closed in accordance with Debris Rule Decontamination, and met the definition of a "Clean Debris Surface" as per the RSOP for **Component Removal, Size Reduction and Decontamination Activities, Section 5.1.2**. Additionally, the glovebox was encapsulated with two layers of FireDam™, which is an approved encapsulant for RCRA characteristic waste.

during the previous 30 years. However, based on laboratory personnel statements, all analyses or preparation for analyses in these gloveboxes involved non-organic compounds.

Therefore, the Site believes the gloveboxes only had the potential to be hazardous for characteristic wastes (not associated with the storage of the mixed residues), and it is the Site's belief is that the gloveboxes should have been dropped from the consent agreement by administrative closure once the mixed residues were bagged out of the gloveboxes. Additionally, the gloveboxes were treated through the use of FireDamTM as a fixative.

White Paper – Lab Cleanup Procedure

6/14/04

During any laboratory operation Good Laboratory Practices (GLP) were always followed. These practices were part of the laboratory's program to ensure high quality analytical results and safe working conditions to the laboratory personnel.

References to cleaning up spills and keeping the laboratory work area clean are in the laboratory's Chemical Hygiene Plan, L-4029-B. Chapter 4, Basic Laboratory Rules, General Operations, bullet four states "At the completion of each workday or operation, clean and organize the work area. Chemicals used for the day SHALL be properly stored." Chapter 11 is devoted to the proper response for Chemical spills, releases and accidents.

Good laboratory practices dictated that whenever a spill occurs, that spill is cleaned up immediately. This is to minimize the following:

- The possibility of any cross-contamination between samples currently in process.
- The possibility of any contamination during the processing of future samples.
- The risk to workers since a wide range of chemicals are in use that may be reactive if mixed with other chemicals, be corrosive and/or carcinogenic.

Without following GLP, including cleaning up spills, the laboratory would have not been able to maintain its high level of quality. The Performance Demonstration Program (PDP) samples analyzed, as part of the WIPP qualifications, and the daily QA samples and blanks analyzed give an indication of the work areas in the laboratory. These types of results could not be achieved without keeping the work area clean.

Besides GLP, 40CFR-262.34 D5ii for Small RCRA Generators and 29CFR1910.1450 appendix A, Spill Control, mandate cleanup of spills.

The laboratory used Chemical Technicians Ready Reference Handbook, 3rd ed., to train our technicians. This book, under Chapter 3, General Guidelines, also states that any spill should be cleaned up immediately.

COPY NO.

Rocky Flats Environmental Technology Site

Analytical Laboratory Procedure

LABORATORY CHEMICAL HYGIENE (LCH) PLAN
RADIOLOGICAL LABORATORIES
BUILDING 559

L-4029-B

INFORMATION ONLY

Author:	<u>/s/ Stephen Lappi</u> Stephen Lappi	<u>11/18/02</u> Date
Peer Reviewer:	<u>/s/ Robert Shannon</u> Signature	<u>11/19/02</u> Date
Approved by:	<u>/s/ Mark Brugh</u>	Date: <u>12/17/02</u> Responsible Lab Manager
Approved by:	<u>/s/ J. P. O'Brien</u>	Date: <u>11/19/02</u> Facility Manager
Approved by:	<u>/s/ Stewart Podolsky</u>	Date: <u>11/18/02</u> Quality Assurance Coordinator
Concurred by:	<u>/s/ Stephen Lappi</u>	Date: <u>11/18/02</u> Industrial Hygiene and Safety
Concurred by:	<u>/s/ Nancy Jensen</u>	Date: <u>11/19/02</u> Chemical Control Officer
Concurred by:	<u>/s/ James Selan</u>	Date: <u>11/19/02</u> Nuclear Safety
Concurred by:	<u>/s/ Stephen Lappi</u>	Date: <u>11/18/02</u> Chemical Hygiene Officer
Concurred by:	<u>/s/ Susan K. Omberg</u>	Date: <u>11/19/02</u> Fire Protection

Responsible Organization: Analytical Laboratory
 Applicable to: Building 559 Complex
 Effective Date: 01/09/03
 This procedure supersedes L-4029-A
 Periodic review frequency: 4 years

SES/USQD: SES-559-03.0376-JCS
 SISR: 02-10

4.0 BASIC LABORATORY RULES

4.1 General Operations

- Before any new operation, seek information and update procedure and advise about possible hazards, update procedure JHA, personal protective equipment requirements, and the safe positioning of laboratory equipment or apparatuses.
- Be alert to unsafe conditions and ensure notification of appropriate personnel for action when necessary.
- Label all chemicals and equipment in accordance with *MAN-072-OS&IH PM*, and the LCH Plan.
- At the completion of each workday or operation, clean and organize the work area. Chemicals used for the day **SHALL** be properly stored.

4.2 Non-routine Operations

- Non-routine laboratory operations that present specific, foreseeable hazards to the employees must have prior supervisory approval.

4.3 Laboratory Glassware Safety

- Handle and store all glassware in a manner that will minimize breakage.
- Dispose of all cracked, chipped, broken, or unserviceable glassware in the proper waste container(s). Never use damaged glassware.
- Wear gloves and eye protection when working with glass tubing.
- Lubricate glass with glycerin or water before inserting in stoppers, or rubber/Tygon tubing.
- Remove glass tubing or thermometers from corks, stoppers, or tubing by cutting the stopper away from the glass with a sharp knife.
- Handle glass beakers by grasping them around the sides for support. Do not grasp from the top.
- Be alert when handling beakers full of caustic or hot fluids. The bottom of the beaker may drop out.
- Place thermally hot glassware in a safe location, where it will not be accidentally touched. Use appropriate tongs to handle the glassware.

11.0 CHEMICAL SPILLS, RELEASES, AND ACCIDENTS

11.1 Definitions

RELEASE means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, or dumping in any building/containment or to the environment.

An **INCIDENTAL RELEASE** includes those leaks, spills, or other releases where the substance can be safely absorbed, neutralized, or otherwise safely controlled by employees or maintenance personnel in the immediate release area at the time of the release. It also includes releases of hazardous substances for which there are no potential safety or health hazards (i.e., fire, explosion, or chemical exposure) above the normal operating conditions in the work area. If a release requires use of additional personal protective equipment (e.g., chemical cartridge respirators) not used during normal work activities, then it would not be deemed incidental.

A release requiring an **EMERGENCY RESPONSE** involves a response effort by employees from outside the immediate release area or by other designated responders (e.g., HAZMAT Team or Radiological Assistance Team) to an occurrence that results, or is likely to result, in an uncontrolled release of a hazardous substance (or unknown).

NON-EMERGENCY UNPLANNED EVENTS include but are not limited to:

- 1) Non-life threatening health and safety situations
- 2) Nuclear safety infractions or releases
- 3) Disregard of audio and/or visual alarms or alarm failures
- 4) Loss or damage of government property
- 5) Process out-of-tolerance conditions
- 6) Any problem with proper contamination control.
- 7) Incidental spills or releases that can be absorbed, neutralized, controlled, and do not pose a safety or health threat to employees as determined by the employees supervisor and/or IH&S.

11.2 Chemical Release

NOTE: THE TYPE OF RESPONSE ACTIONS TO SPILLS, LEAKS, OR OTHER RELEASES OF HAZARDOUS CHEMICALS, HAZARDOUS MATERIALS, HAZARDOUS SUBSTANCES, OR AN UNKNOWN IS DEPENDENT ON WHETHER THE RELEASE REQUIRES AN INCIDENTAL OR EMERGENCY RESPONSE. ANY INITIAL ACTION TAKEN DURING AN INCIDENTAL OR EMERGENCY RESPONSE SHALL BE CONSISTENT WITH FIRE DEPARTMENT OPERATING PROCEDURES AND INSTRUCTIONS # 3-FP-SOI-1007, RESPONSE LEVEL CLASSIFICATIONS. IF ANY UNCERTAINTY EXIST TO RESPONSE ACTIONS, CALL 2911.

Non-Emergency Response Required Actions

For non-emergency responses, employees **SHALL** notify the first available supervisory person (i.e., your immediate supervisor, or the Control Configuration Authority, Facility Manager, or Shift Supervisor at x2914.)

Non-emergency response action(s) by lab employee(s) **SHALL** only be taken if the employee(s) has been properly trained, is wearing the appropriate PPE(See MSDS) and can perform the cleanup in a safe manner (see MSDS), without endangering himself/herself or others. All spills of carcinogens or highly toxic substances must be evaluated by industrial hygiene for proper response procedures.

Emergency Response Required Actions

For any release requiring an emergency response, the employee **SHALL** move to a safe location, secure the area and notify others, and immediately notify supervision. The chronological order for completing these tasks is dependent on the situation or as directed by supervision. The Control Configuration Authority will make any additions notifications required by the Building Emergency Response Manual.

12.0 LCH PLAN AUDIT

It is the responsibility of the Radiological Laboratories to review, on a yearly basis, the LCH Plan, and provide results to laboratory supervision, and Industrial Hygiene. Laboratory supervision is responsible for taking corrective action.

Myers, Kim

From: Brugh, Mark
Sent: Tuesday, June 15, 2004 4:44 PM
To: Nesta, Stephen; Myers, Kim
Cc: Richardella, Robert; Jensen, Nancy
Subject: Boxes - uses through the '90s

Steve:

Here is the uses for each box during the 90's till lab closure:

Rm 101

E-11, E-12, E-13 - These boxes were used to prepare samples for metal analysis. Metals preparation involved mineral acids and peroxide.

E-22 - this box was used for mercury analysis. Mercury is measured using inorganic chemicals: potassium permanganate solution, potassium persulfate solution, sodium chloride-hydroxylamine sulfate solution and stannous chloride solution.

E-20 - this box was used for storage and metal TCLP extraction (extracted with acetic acid solution). No chemical additions were made in this box the bottles were rotated in this box.

E-19 - We installed a microwave extractor in this box. Only testing was done with the microwave involving mineral acids. The box was mostly used for storage.

E-18 - a box used for storage of waste bottles and samples after analysis.

Rm 102

C-17 - Early 90's to the mid 90's this was a Uranium analysis area. Not much work. Inorganic chemicals used.

C-40 - Wet chemistry (titrations, etc.) for Uranium performed. Not much work performed.

Inorganic chemicals used. In 2002/3 became the location for NoChar and solidification of liquids.

Rm 103

M-23 - Early to mid 90's this area was used to prep samples for isotopic mass spec analysis.

This was an inorganic analysis for the determination of the isotopic content of transuranic in samples. Not performed to much after 1996.

M-36 - Further preparation of samples from M- 38.

M-21 - Early 90's this box was used to prep samples for X-ray fluorescence. No organics were used. In the mid 90's this box was used to store samples and to perform particle size analysis. No chemicals were used for this process. Finally in 2003 this box was cleaned out and converted over to contain the autosampler for a new GC/MS for volatile analysis. Prep was performed in another box. This box contained the sealed, prepared samples.

If you have questions or I missed a box let me know.

Mark Brugh

Laboratory Manager

phone: (303)966-7709 cell: (303)994-1259

mark.brugh@rfets.gov

RECEIVED

revised 10/04

CORRES. CONTROL
INCOMING LTR NO.

00580 RF04

2004 DEC -2 A 6:44

STATE OF COLORADO

DUE DATE
ACTION

Bill Owens, Governor
Douglas H. Benevento, Executive Director
Dedicated to protecting and improving the health and environment of the people of Colorado

CORRESPONDENCE
CONTROL

4300 Cherry Creek Dr. S.
Denver, Colorado 80246-1530
Phone (303) 692-2000
TDD Line (303) 681-7700
Located in Glendale, Colorado
<http://www.cdphpe.state.co.us>
Laboratory Services Division
8100 Lowry Blvd.
Denver, Colorado 80230-6928
(303) 692-3090



Colorado Department
of Public Health
and Environment

DIST.	LTR	ENC
BERARDINI, J.H.	X	
BOGNAR, E.S.	X	
BROOKS, L.		
BUTLER, L.		
CARPENTER, M.	X	
CRUCCI, J.A.		
CROCKETT, G.A.		
DECK, C.A.	X	
DEGENHART, K.R.		
DEL VECCHIO, D.		
DIETER, T.J.		
FERRERA, D.W.	X	
GIACOMINI, J.J.		
LINDSAY, D.C.		
LONG, J.W.		
LYLE, J.L.		
MARTINEZ, L.A.	X	
NAGEL, R.E.	X	
NESTA, S.		
TH, K.	X	
TON, D.C.	X	
RS, M.S.		
JR, N.R.		
WIEMELT, K.	X	
WILLIAMS, J.L.		
ZAHM, C.	X	
Rosenman	X	

November 9, 2004 3V 2 2 2004

Mr. Joseph A. Legare, Director
RFPO Project Management
Rocky Flats Project Office
U.S. Department of Energy
10808 Highway 93, Unit A
Golden, Colorado 80403-8200

Ms. Karan North
Kaiser Hill
Rocky Flats Environmental Technology Site
10808 Highway 93, Unit B
Golden, Colorado 80403-8200

Re: Disposal of Building 559 Glove Boxes Subject to August 4, 2004 Compliance Advisory

Dear Ms. North and Mr. Legare:

We have reviewed the information submitted in response to the August 4, 2004 Compliance Advisory regarding closure of glove box units in building 559 and the information supporting a hazardous waste determination for disposal of the units. Based on that review, the Department has determined that the glove boxes are not hazardous wastes for purposes of disposal.

If you have any questions regarding this determination, please feel free to contact me at (303) 692-3342.

Sincerely,

Frederick R. Dowsett
Compliance coordinator
Hazardous Materials & Waste Management Division

cc: Dan Miller, AGO

COR. CONTROL	X
ADMIN. RECORD	
PATS/130	

Reviewed for Addressee
Corres. Control RFP
Date 12/02/04 By [Signature]

Ref Ltr. #

DOE ORDER #
5400.1

RFETS MASTER RCRA UNITS

	A	B	C	D	E	F	G	H	I	J
1	Unit No.	Building	Unit Description	Regulatory Status	Closure Status	Closure Date	Closure Document Approval	SET	Closure document submittal	CDPHE approval
155	90.102	559	Container Storage, Rm. 103, Glove boxes M-12, M-13, M-14, M-20, M-21, M-23, and M-36	Mixed Residue - CLOSED per B559 Compliance Advisory	PARTIALLY CLOSED in accordance with "RCRA Closure Plan for Mixed Residue Container Storage Units," (11/22/98); Closure Certification for Glove boxes M-12, M-13, M-14, and M-20 signed 9/11/96 (ref. 96-DOE-03029, 10/7/96); GBs M21, M23, M36 were closed per Compliance Advisory. CDPHE letter dated 11/9/04 closed GBs M21, M23, and M36.	11/9/04	RSOP 10/7/04		COR 6/21/05	PDSR 2/14/05 COR 9/28/05
202	90.26	559	Container Storage, Rm. 103E	WITHDRAWN - Never used for haz. waste	WITHDRAWN 10/26/94 (ref. 94-DOE-10453).	NA	NA		NA	NA
205	90.29	559	Container Storage, Rm. 101, Glove boxes E-4, E-5, E-11, E-12, E-13, E-18, E-19, E-20, E-22	Mixed Residue - CLOSED per B559 Compliance Advisory	CLOSED in accordance with "RCRA Closure Plan for Mixed Residue Container Storage Units," (11/22/98); Closure Certification for Glove boxes E-4, E-5, and E-19 signed 9/11/96 (ref. 96-DOE-03029, 10/7/96). GB's E11, E12, E13, E18, E20, and E22 closed subject to Compliance Advisory. CDPHE letter dated 11/9/04 closed GBs E11, E12, E13, E18, E20, and E22.	11/9/04	RSOP 10/7/04		COR 6/21/05	PDSR 2/14/05 COR 9/28/05
233	90.56	559	Container Storage, Rm. 103A	WITHDRAWN - Never used for haz. waste	WITHDRAWN 10/26/94 (ref. 94-DOE-10453).	NA	NA		NA	NA
234	90.57	559	Container Storage, Rm. 109 (Loading Dock)	WITHDRAWN - Loading docks are excluded from permitting	WITHDRAWN 10/26/94 (ref. 94-DOE-10453).	NA	NA		NA	NA

RFETS MASTER L CRA UNITS

	A	B	C	D	E	F	G	H	I	J
1	Unit No.	Building	Unit Description	Regulatory Status	Closure Status	Closure Date	Closure Document Approval	SET	Closure document submittal	CDPHE approval
526	559.1	559	Container Storage, Rm. 102, Glove box C-17 (90.101)	PERMITTED - CLOSED per compliance advisory	Closed by removal in 2004 under B599 RSOP. CDPHE letter dated 11/9/04 closed GB C-17.	11/9/04	RSOP 10/7/04		COR 6/21/05	PDSR 2/14/05 COR 9/28/05
890	S002	559	Glove box C-40	PERMITTED - CLOSED per compliance advisory	CLOSED subject to Compliance Advisory. CDPHE letter dated 11/9/04 closed GB.	11/9/04	RSOP 10/7/04		COR 6/21/05	PDSR 2/14/05 COR 9/28/05