

02-RF-01099



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MAY - 3 2002

02-RF-01099

Ron Bostic
Director, Nuclear Regulatory Division
DOE, RFFO

TRANSMITTAL OF PGC-881-02.1502-ARH, REVISION 0 FOR CONCURRENCE – DPS-014-02

- Refs: (a) *Site Safety Analysis Report (Site SAR), Volume I, Appendix H, Building 881 and Related Facilities, Safety Analysis, Revision 2, Kaiser-Hill LLC, November 2000.*
 (b) Memo, Golan to Brailsford, dated November 22, 2000, Subject: *Approval of the Site Safety Analysis Report Annual Update, U.S. Department of Energy, AME:NRD:RGB:00-03674.*
 (c) *Holdup Characterization of Building 881, HMT-02-008, January 2002.*
 (d) *Criticality Safety Evaluation, Building 881 Criticality Incredibility, CSOL:01-0097, Evaluation:BIK-174, Revision 1, May 2002.*
 (e) *Site Safety Analysis Report (Site SAR), Volume II, Revision 2, Kaiser-Hill LLC, November 2000.*

This letter transmits the attached Technical Safety Requirement (TSR) Page Change # PGC-881-02.1502-ARH, Revision 0 for concurrence. This Page Change proposes editorial changes to the *Building 881 and Related Facilities, Safety Analysis, Revision 2* (Reference [a]) as approved with Technical Direction (Reference [b]) by DOE, RFFO. The Page Change consists of editorial changes to the facility's mission description that will allow accelerated duct opening, duct decontamination, and duct section removal, if required. A description of and justification for the proposed changes are provided below.

Purpose of Proposed Changes

The purpose of the proposed editorial changes is to provide clarification of phraseology used in Reference (a) to include facility decontamination of the ventilation ducts in Building 881. The ducts have been found to have much smaller quantities of radiological material holdup as compared to the estimates presented in Reference (a). Accelerated duct decontamination is necessary to award a subcontract to a vendor to perform final facility dismantlement, decontamination, and demolition (DD&D) in CY 2003.

Proposed Editorial Changes

Proposed editorial changes to Reference (a) consist of changing Section 2.1, Facility Mission description, second paragraph, as follows:

- (1) addition of ventilation duct opening, duct decontamination, and duct section(s) removal, if required; and
- (2) deleting the use of Room 267 for bench-scale treatment of reactive chemicals and the use of Room 296 for decontamination and decommissioning (D&D) training.

CLASSIFICATION:
UCM
UNCLASSIFIED
CONFIDENTIAL
SECRET

AUTHORIZED CLASSIFIER

SIGNATURE: *[Signature]*

Date: **5/2/02**

IN REPLY TO RFP CC NO.

ACTION ITEM STATUS:
 PARTIAL OPEN
 CLOSED
 LTR APPROVALS:

RIG. & TYPIST INITIALS:
ARB/wjd

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Technical Justification

Reference (a) analyzed accident scenarios in which approximately 313 grams (g) of plutonium (Pu) was conservatively assumed as the radiological material holdup in the ducts. The recently completed *Holdup Characterization of Building 881* (Reference [c]), however, indicates that far smaller quantities of radiological material (approximately 4 g Pu and 992 g uranium [²³⁵U]) remains in the ventilation ducts. Additionally, remote photography depicts a dust-like, oxidized material residing in the ducts. Dry vacuum decontamination/removal of this material is currently planned after concurrence by the DOE with this editorial Page Change. The dry vacuuming process will be subject to the administrative and engineered safety controls specified in the recently completed *Criticality Safety Evaluation, Building 881 Criticality Incredibility* (Reference [d]).

Reference (c) provides isotopic field measurements to conclude that the proposed activity, which could change duct configuration, is in accordance with Reference (a), Section 3.1.2 "Nuclear Safety SMP." Further, comparison of the new Reference [c] Material At Risk (MAR) actual data with the conservatively estimated Reference (a) MAR used in the present accident scenarios indicates that the proposed activity would result in a negative Unreviewed Safety Question Determination (USQD). The proposed editorial changes are therefore considered bounded by the present Reference (a) accident scenarios.

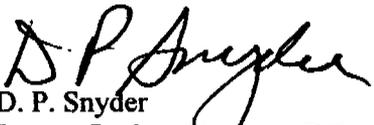
The proposed editorial changes do not affect the facility's safety envelope and do not increase the risk of operating the facility to the public, collocated worker, or immediate worker. Further, the proposed editorial changes do not reduce the facility's margin of safety during duct decontamination operations.

Authorization Basis Documentation Planning

Upon concurrence by the DOE, RFFO with this Page Change, Reference (a) will be updated and issued to the Site via controlled distribution. After Nuclear Safety Evaluation and approval of the duct opening, duct decontamination, and duct section removal Integrated Work Control Program (IWCP) work package and its associated Job Hazards Analysis (JHA), the activity will commence.

Based on the new duct characterization data and criticality safety controls in References (c) and (d), K-H plans to submit Revision 3 of the Building 881 and Related Facilities Safety Analysis in May 2002. Revision 3 will be submitted to DOE, RFFO for concurrence with the facility's re-categorization to a *radiological* facility. Controls pertinent to maintaining the facility's safety envelope and hazard classification as *radiological* will be provided in the Facility Safety Analysis (FSA) which, upon DOE, RFFO concurrence, will be issued as part of the *Site Safety Analysis Report, Volume II* (Reference [e]). References (c) and (d) will be submitted to the DOE as supporting documentation with the above FSA.

If you have any questions, please contact myself or Tim Humiston at extension 2700.


D. P. Snyder
Deputy Project Manager, RISS Safety
Remediation, Industrial D&D, and Site Services Project
Kaiser-Hill Company, LLC

ARH:wjd

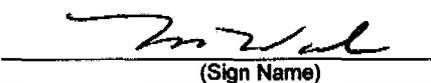
Attachment:
As Stated

Orig. and 1 cc - Ron Bostic



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ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

Rocky Flats Environmental Technology Site Environmental Safety Requirements Page 1 of 5 Cover Sheet			
JCO No.: <u>PGC-881-02.1502-ARH</u>	Revision No. <u>0</u>	Building <u>881</u>	Page <u>1</u> of <u>5</u>
Title: SITE SAR, VOLUME I, APPENDIX H, "SAFETY ANALYSIS, BUILDING 881 AND RELATED FACILITIES", REVISION 2, EDITORIAL CHANGES		Charge #: <u>EEB100-AB</u>	
Preparer			Date
Prepared: <u>Alan R. Hohl</u> (Print Name)		 (Sign Name)	<u>05/02/02</u>
Technical Reviewer			Date
Approved: <u>Mitch Waller</u> (Print Name)		 (Sign Name)	<u>5/2/02</u>
Project Manager or Designee			Date
Approved: <u>Don W. Clark</u> (Print Name) KAD		 (Sign Name)	<u>5/2/02</u>
ISRC Chair			Date
Approved: <u>Richard A. Walker</u> (Print Name)		 (Sign Name)	<u>5.3.02</u>
PRC/ORC/ISR Meeting No. <u>SISRC 02-08</u>			
REVISION DOCUMENTATION			
<u>Reason for Revision:</u>			

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K.A. Don **UND**
5/2/02

**Title: Site SAR, Volume I, Appendix H, "Safety Analysis, Building 881 and Related Facilities",
Revision 2, Editorial Changes**

Executive Summary

The proposed changes to the *Building 881 and Related Facilities Safety Analysis (SA)*, Revision 2 (Site Safety Analysis Report, Volume I, Appendix H) (Reference a.) are editorial changes to the safety analysis previously approved, with Technical Direction (Reference b.) by the DOE, RFFO. The proposed changes clarify phraseology used in the referenced Authorization Basis (AB) document to include facility decontamination and removal, if required, of the ventilation ducts in Building 881 in advance of Subcontractor dismantlement, decontamination, and demolition (DD&D) of the facility planned for Calendar Year (CY) 2003.

Proposed changes to the *Building 881 and Related Facilities Safety Analysis* include:

- (1) addition of ventilation duct opening, duct decontamination, and duct section(s) removal, if required, to the Facility Mission description, Section 2.1, and
- (2) deleting from the Facility Mission description, Section 2.1, the use of Room 267 for bench-scale treatment of reactive chemicals, and the use of Room 296 for decontamination and decommissioning (D&D) training.

The proposed editorial changes do not affect the facility's safety envelope and do not increase the risk of operating the facility to the public, collocated worker, or immediate worker. Further, the proposed editorial changes do not reduce the facility's margin of safety during duct decontamination operations.

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1.0 Description and Purpose of Proposed Page Change

The purpose of the proposed editorial changes is to provide clarification of phraseology used in Reference a. to include facility decontamination of the ventilation ducts in Building 881. The main editorial change allows decontamination of Building 881 ventilation ducts having small quantities of radiological material holdup. Duct decontamination is necessary to award a subcontract to a vendor to perform final facility dismantlement, decontamination, and demolition (DD&D) of the facility in CY 2003.

Proposed changes to the *Building 881 and Related Facilities Safety Analysis* include:

- (1) addition of ventilation duct opening, duct decontamination, and duct section(s) removal, if required, to the Facility Mission description, Section 2.1, and
- (2) deleting from the Facility Mission description, Section 2.1, the use of Room 267 for bench-scale treatment of reactive chemicals, and the use of Room 296 for decontamination and decommissioning (D&D) training.

The proposed editorial changes do not affect the facility's safety envelope and do not increase the risk of operating the facility to the public, collocated worker, or immediate worker. Further, the proposed editorial changes do not reduce the facility's margin of safety during duct decontamination operations.

2.0 Reference Documents

- a. *Site Safety Analysis Report, Volume I, Appendix H, Building 881 and Related Facilities Safety Analysis, Revision 2, Appendix H, Kaiser-Hill Company LLC, November 2000.*
- b. Memo, Golan to Brailsford, dated November 22, 2000, Subject: *Approval of the Site Safety Analysis Report Annual Update, U.S. Department of Energy, AME:NRD:RGB:00-03674.*

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3.0 Safety, Operating Function and Operating Conditions Identification

Building 881 and its Related Facilities (830, 881G, 881H, 885, and 890) are currently involved with removal of facility functions and materials in advance of DD&D. Building 881 is currently used for the storage of limited quantities of containerized low level/low level mixed (LL/LLM) waste. Radiological material holdup in the ventilation ducts is also described in Reference a.

Building 881 and Related Facilities have no identified safety structures, systems, or components (SSC) or Safety Significant SSCs.

4.0 Summary of Current Requirements and Proposed Changes

All proposed editorial changes are located in Reference a. Section 2.1 "Facility Mission", paragraph 2, and are combined below for review simplicity.

Current Requirement:

The current Reference a. Section 2.1 Facility Mission description (second paragraph) discusses current activities in the building as those generally associated with preparations for eventual decommissioning of the facility as follows:

"In addition to the remaining asbestos sample analysis, reactive chemical treatment, laboratory, and administrative activities, current activities in the building are associated with preparations for eventual decommissioning of the facility. Because of these decommissioning activities, some of the data used in this SA may change over time; this document provides a hazard assessment of the hazardous materials present or currently anticipated to be in the facility. Bench-scale treatment of reactive chemicals is conducted in Room 267 (see Appendix A). Room 296 is being modified to accommodate clean mock-up gloveboxes and tents for decontamination and decommissioning (D&D) training."

Proposed Change:

Based on the Project's need to decontaminate the ventilation ducts prior to Subcontractor start of facility DD&D operations, editorial changes to Section 2.1 Facility Mission (second paragraph) are proposed (changed/added text is in ***bold italics***). Additionally, as the bench-scale treatment of reactive chemicals in Room 267 has ceased and the treatment units are currently being closed, the third sentence in the paragraph should be deleted. Similarly, decontamination and decommissioning (D&D) training has ceased in Room 296 and is being relocated to another facility; therefore, the fourth sentence in the paragraph should also be deleted. The above proposed changes result in a new paragraph that will read as follows:

"In addition to the remaining asbestos sample analysis, reactive chemical treatment, laboratory, and administrative activities, current activities in the building are associated with preparations for ***dismantlement, decontamination, and demolition (DD&D)*** of the facility. ***Such preparatory activities currently include ventilation duct opening for decontamination, duct decontamination, and duct section removal, if required.*** Because of these decommissioning activities, some of the data used in this SA may change over time; this document provides a hazard assessment of the hazardous materials present or currently anticipated to be in the facility."

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5.0 Technical Justification

The proposed changes to Reference a. are editorial changes that clarify the Facility Mission description activity of "preparing the facility for decommissioning" to include ventilation duct opening, duct decontamination, and duct section removal, if required. Upon DOE, RFFO concurrence, the proposed change will allow facility decontamination of the ventilation ducts in Building 881 in support of early Subcontractor DD&D of the facility. Radiological material holdup in the ventilation ducts was conservatively estimated and analyzed in Reference a. The proposed editorial changes described herein are bounded by the current Reference a. accident analysis and pertinent analysis assumptions.

The proposed change also deletes the facility's use of Room 267 for the bench-scale treatment of reactive chemicals as well as the use of Room 296 for D&D training. The treatment units are currently being closed, and D&D training will cease in May 2002.

The proposed editorial changes do not affect the facility's safety envelope and do not increase the risk of operating the facility to the public, collocated worker, or immediate worker. Further, the proposed editorial changes do not reduce the facility's margin of safety during duct opening, duct decontamination, and duct section removal, if required.

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