

Date: December 1, 1997

Assessment ID Number: 97-047-AI-CERCLA Building 123 Equipment Stripout ERE

Purpose: To assess the readiness of the Integrating Management Contractor to proceed with work in Building 123 for the first phase of the demolition, equipment stripout.

Executive Summary: The cooperation of the assessed personnel and their attitude concerning this assessment was positive and commendable. In general, the demolition team was well prepared to proceed with work in the field with 5 exceptions noted as prestart findings below. It is necessary to correct these 5 deficiencies to DOE satisfaction prior to start of the work. There are also 9 other findings which must be corrected but not prior to starting work.

Conduct of Assessment: The RFFO assessment was conducted over a week period from 20 through 26 November 1997 by the seven member team who signed below. The assessment was conducted in accord with the Assessment Program Operating Procedure and the Assistant Manger for Environmental Compliance Addendum to the Assessment Procedure for Environmental Readiness Evaluations. The building was visited by the whole team at various times, interviews were conducted informally, and a large number of documents were reviewed. Additional detail is provided in the attached team member observation forms. Note that substantial changes were made to the category of findings in the observation form covering radiological protection in this final report.

The result of the assessment.

Findings:

Prestart Findings (must be corrected to DOE satisfaction prior to start of work):

- Specific RWP 97-123-0003 & RWP 97-123-0005:
 - RCAs allowed on the RWP are RMAs and CAs only, however, the suspension limits are 150,000 dpm/100cm² beta/gamma removable and 50 DAC (150,000 dpm/100cm² beta/gamma removable exceeds CA limits and 50 DAC would be an ARA).
- RWP 97-123-0007
 - RCAs allowed on the RWP are HCAs only, however, the suspension limits are 2000 dpm/100cm² alpha and 150,000 dpm/100cm² beta/gamma removable (2000 dpm/100cm² alpha removable is the low end of the HCA limit, and 150,000 dpm/100cm² beta/gamma removable is not a CA or HCA limit).
 - No double PPE required as per Site RCM for work in an HCA.
- Section 4.4 Hazard Analysis (AHAs/JSAs) of the Safety and Health Program identifies several specific steps to be taken when developing the hazard

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analysis. Section 1.1 Scope and Applicability of the Building 123 Decommissioning Health and Safety Plan states "The AHA will identify the principal steps involved and the sequence of work activities, the potential safety and health hazards associated with each step, the specific controls associated with each potential hazard, the task specific special equipment to be used in performing the activity, and monitoring requirements." Section 1.6 Health and Safety Plan Development prescribes that the AHA will include "Actual corrective measures planned to control or mitigate identified hazards." The AHAs do not meet these requirements, particularly the requirements to develop controls for the identified hazards. The concurrence of the job supervisor and the safety and health representative raises concerns regarding appropriate review. A comprehensive review of specific safety and health hazards, the analysis conducted to identify the specific hazards, and control measures to mitigate these hazards will need to be performed prior to project initiation.

- Training records were found demonstrating completion of the required training as outlined in both the Statement of Work section 01114 as well as the Safety and Health Plan for Building 123 Strip-Out Project, 10/97, by DWRC. However, no documentation was found supporting completion of some of the training requirements as listed in Building 123 Decommissioning Project Health and Safety Plan, RMRS, Rev. 0, June 1997. Interviews with the DWRC training coordinator showed that he, incorrectly, did not believe that the training requirements in the RMRS Health and Safety Plan superseded the others mentioned.

Post-Start Findings (must be corrected but not prior to the start of work in the field):

- General RWP:
 - The survey frequency of the RWPs was stated as "As per Rad Ops Supervision." The use of this statement should be minimized and does not meet the intent of HSP and ROI requirements.
- ALARA Review, Rev 0:
 - The ALARA Review is lacking specific information on when, where, and how glove-bags and containments will be utilized.
 - The ALARA Review is lacking specific information on when, where, and how size reduction of contaminated equipment will be performed and controlled.
- IWCP FBO410-03-2, Rev 0:
 - The IWCP is lacking specific information on when, where, and how glove-bags and containments will be utilized.
 - The IWCP is lacking specific information on when, where, and how size reduction of contaminated equipment will be performed and controlled.
 - The IWCP is lacking specific instructions on how to handle contaminated concrete slabs. Since the building provides an acceptable

containment, it may be advantageous to decontaminate these slabs during the Strip-Out Phase.

- Close-Out Radiological Survey Plan, Rev 0:
 - The Close-Out Radiological Survey Plan (CRSP) for B123 was not approved or reviewed by the K-H ERE Team. A member of the K-H ERE Team who is an SME on MARSSIM should review the CRSP for adequacy.
 - The K-H ERE Team should ensure that the Close-Out Survey is part of the stripout phase and documented as such.
 - The survey instructions under Appendix C columns “# Removable alpha/beta survey measurements” and “# Direct alpha/beta survey measurements” do not match the survey requirements in Section 4.4 Class 1, 2 and 3, Survey and Sampling Requirements. For example, Appendix C, Group 15, Survey Unit 34 instructions state “Minimum of 3/plane”, however, the Section 4.4, Class 2 requirements state “one fixed alpha and beta total surface activity measurement for each one square meter (nine square feet) with a minimum of 5 per wall and/or 10 per floor.” There is no discussion as to why the requirements are different than the instructions, or how and if the instructions will satisfy the requirements.

Observations (provided for information or action as Kaiser-Hill as deems appropriate):

- General RWP:
 - Since most of the RWPs have a different title but contain the same requirements, these RWPs should be combined. Due to the specific scope of work and in order to minimize worker confusion, the number of RWPs should be as limited as possible for the stripout phase, no more than two or three RWPs should be sufficient to cover all tasks.
 - The requirements for a Post-Job ALARA Review are different between HSP 6.07, Section 7.11 and REP 1002, Section 5.4. The RWP should reference REP 1002, Section 5.4. since the requirements are more encompassing. A DMR should be generated to make these procedures consistent.
 - The IWCP for the Stripout Phase (FB0410-03-2) requires radiation surveys per ROI 01.01, however, the RWPs only require contamination surveys, not radiation surveys.
 - RWPs were missing Job Supervisor employee # and signature.
 - RWPs reference AHA for additional PPE requirements. Due to this reference, the AHA would have to be available and read before each entry. In order to ensure RWP compliance the RWPs should be stand alone.
 - There is a suspension limit of 5 mrem/hr, however, radiation surveys are not required to verify the suspension limit is reached.

- The RWPs are not clear on the Rad Ops Coverage. Note [5] is not clear when a full time RCT is required or when an On Call RCT is required.
- Of the RWPs provided for review, there was no discussion or controls for size reduction of equipment.
- Specific RWP 97-123-0003:
 - The RWP references ALARA Review 97-123-003, however, the ALARA Review is only applicable to areas posted HCA, this RWP does not cover work in HCAs.
- Specific RWP 97-123-0007:
 - There is a suspension limit of 50 DAC, however, ARA is not listed as an allowed area for entry.
- Specific RWP 97-123-0005:
 - The RWP references ALARA Review 97-123-003, however, the ALARA Review is only applicable to areas posted HCA, this RWP does not cover work in HCAs.
 - Note [6] is a generic requirement for most work and should be incorporated in the IWCP and not on the RWP.
 - Note [7], define “contamination free” and “elevated.”
 - ALARA Job Review # missing in Approval Section.
- RWP 97-123-0001, RWP 97-123-0002, RWP 97-549-6315, and RWP 97-549-6314
 - These RWPs were marked “Information Only” and “Draft,” therefore, these RWPs were not reviewed.
- ALARA Review, Rev 0:
 - Heading - RWP No. missing.
 - Section I - Job description is for work in HCAs, however, RWPs for work in CAs reference this ALARA Review.
 - Section II - The words “Site Radiological Control Manual” should be added before “Table 2-2.”
 - Section II - Air purifying respirators are not allowed on any of the RWPs. A note should be added that work will stop if >50 DAC and RWPs, ALARA Review, etc. will be reevaluated.
 - Section III - Per the RWRC training matrix, only 5 of 26 workers are qualified on glove bags.
 - Section III - Normally, pre-evolutionary briefings are not held before unplanned emergency conditions manifest.
 - Section IV - There is a suspension limit of 5 mrem/hr, however, radiation surveys are not required on the RWPs to verify the suspension limit is reached.
 - Section IV - The statement about full-face respiratory protection should also appear on the applicable RWP(s).
 - Section IV - The statement “Full time RCT support is required” contradicts the On-Call requirements of the RWPs.

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- Section IV – In the section titled “The use of solvents to soften the mastic,” the word *minimizing* should be used instead of “preventing.”
- The ALARA Review should specify how the HCA areas will be established and controlled.
- IWCP FBO410-03-2, Rev 0:
 - As noted above, the IWCP requires radiation surveys per ROI 01.01, however, the RWPs only require contamination surveys, not radiation surveys.
 - There is no signature block for completion of the Close-Out Radiological Survey Plan.
 - The appendices were not attached to the IWCP and therefore, were not reviewed.
- Close-Out Radiological Survey Plan, Rev 0:
 - There is no discussion as to how the source storage wells, process waste sumps or potentially contaminated slabs will be handled and/or surveyed.
 - There is not adequate justification given for the survey unit classifications. Using characterization data and process history, technical justifications should be documented for each survey unit classification. A synopsis of the characterization data for each survey unit should be documented in the CRSP.
 - There is no discussion as to why building systems (e.g., fire protection, steam system, plant air, domestic water, sanitary sewer, etc.) and any other non-impacted areas, if any, are not included in the CRSP.
 - No discussion or guidance is given on how to investigate, document and resolve elevated areas, hot spots, and anomalies in the survey data.
 - There is no discussion on what statistical evaluations will be performed on the survey data or how this data will be reported.
 - Section 6.1 Step 3 - Based on a SAC-4 MDA of 18 dpm, the SAC-4 should not be used to count alpha smears since 18 dpm is 90% of the release limit of 20 dpm and does not meet the goal of using instruments which have an MDA of 50% of the release limit.
 - Section 6.1 Step 3 - The instrument (Ludlum 31) that will be used in Group 15 is not listed in the instrument table. The use of this instrument should also be included in a note on the Group 15 survey instruction form.
 - The purpose of Appendix B is not clear. The title of Appendix B is “MARSIMM Statistical Methodology,” based on a review of the appendix, it does not cover what the title indicates. Why was only removable alpha and fixed beta calculated when other types of surveys will be performed, such as removable beta and fixed alpha? How do the results of these calculations effect the survey instructions? Why is the LBGR based on professional judgment when there is characterization data to support this value? What is the technical justification for the “assumed” distribution of survey results being 9 ± 3

dpm/100cm², shouldn't this be determined from the characterization data? What does the term (0.05/0.01) mean in terms of the fixed beta result? More discussion is needed in this appendix to explain the calculations and how they relate to the CRSP. Additionally, as the title indicates, statistical methods of how the data will be handled should be discussed.

- Appendix C - The signature page should be included in the review/approval page at the front of the CRSP.
- Appendix C - The Activity Hazard Analysis should be a separate appendix since it is not radiological survey instructions as the appendix title indicates.
- Appendix C - Groups 1 and 24-28 instructions are missing Note (4).
- Appendix C - Group 15, There should be additional instruction for Group 15 to indicate how beta-gamma surveys will be performed since they are different from the normal beta only surveys. Additionally, Note 3 should have the word "gamma" added after "beta."
- Appendix C - Note (1) survey maps were not attached to the CRSP and therefore, not available for review.
- Section 6.13 Scaffolds of the Building 123 Decommissioning Health and Safety Plan states that "Fall protection shall be provided to workers during erection and dismantling activities involving 10 feet or more ..." Section 6.14 Fall Protection states that "...from a ladder where the worker's feet are more than 6 feet above the floor or ground ..." and "A full body harness is required for elevated work above 6 ft." Is fall protection required above six feet or ten feet? Do personnel wear fall arrest systems at six feet or ten feet? The discrepancy needs to be clarified.
- Section 1.5.3 Building 123 of the RFETS Emergency Plan identifies a specific population for each shift. It further identifies the most significant hazards as being hydrochloric acid, nitric acid, and hydrofluoric acid. Since the RFETS Emergency Plan governs emergency response on the site for several response organizations, the number of personnel identified who could be affected in this building by an emergency needs to be current with the actual number of personnel impacted. Emergency response units will use this figure to plan accordingly. Further, the three acids identified as significant hazards have been removed and replaced with perchloric acid crystals. Response organizations should be made aware of the change in the hazard status for the building.
- The Closure Plan for partial Closure of RCRA Unit 40 is not yet approved and requires a 45 day public comment period prior to approval. Kaiser Hill has stated they plan to proceed at risk without the approved closure plan.
- The Administrative record (AR) was adequate for the removal action under CERCLA and RFCA but the list of documents did not address public participation specifically but should if a document was publicly released for comments even though there weren't any comments received.
- If a Site Technical Administrative Record Review (STARR) meeting was held, some record of it would be a document worth considering adding to the AR.

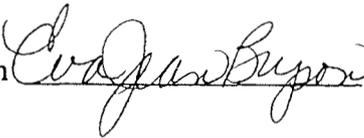
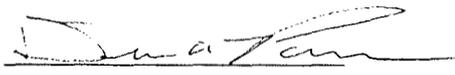
- There is no evidence that RMRS or KH recognized that a number of procedures used in the development of the work package, and the decontamination procedure included as an appendix, for equipment removal were past their periodic review dates. Periodic reviews of procedures, such as Health and Safety Practices (HS&P), are a requirement of a Level 1 site procedure. Periodic reviews ensure the technical accuracy of the procedure and provide a method to incorporate changes in technology or procedural improvements. The condition of the periodic review of procedures has been documented in other assessments. For this reason no actions are required associated with periodic reviews for B123 stripout.
- The reliance on Statements of Work incorporated as an appendix to an IWCP work package introduces the possibility that some requirements may be missed. While the end user of the work package may be familiar with the requirements within the statement of work, in the course of performing work some of these requirements may be missed. It is not clear how changes made to an appendix, such as the statement of work, in a IWCP work package are integrated with the IWCP change requirements. It appears that changes to requirements could be made to the statement of work independently of the organizations that originally concurred to the work package.
- It appears that other organizations on site will be expected to provide services, such as draining water from systems, without their concurrence on the cover of the work package. Assuming that organizations are prepared to perform what may appear to be simple evolution's, can easily develop into delays in schedule.
- Poor coordination and communication during facility transition to a D&D facility resulted in freeze protection rounds not being performed as required during cold weather. While this may not be directly related to the KH ERE, it occurred during the KH ERE and there is no evidence that RMRS or KH was aware that this condition was allowed to occur. This issue may be related to a lack of guidance on the method for transitioning a building into a D&D status.

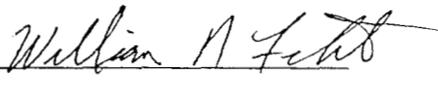
Assessment Report

Recommendation: Authorize work to proceed following confirmation of prestart finding correction.

Signed:

Steve Tower (lead)  Brandon Williamson 

Eva Jean Bryson  Duane Parsons 

Jon Dion  Bill Fitch 

Larry Maghrak 

ASSESSMENT OBSERVATION FORM

Assessment ID Number: 97-047-AI-CERCLA Date: 11/25/97 Time: 1600

Assessor: Duane Parsons, AMPA, SHFAD
(Name/Organization of Individual performing assessment activities)

Criteria
Site Radiological Procedures (ROI 03.01, ROI 03.02, REP-1003, REP- 1002), HSP 18.10, Site ALARA Program Plan, MARSSIM, NUREG/CR-5849
(Briefly describe the criteria or expectations being evaluated. When applicable include reference to criteria source documents, i.e., DOE Order, Site Procedure, etc.)

Approach:
Review of RWPs, ALARA Review, Close-out Radiological Survey Plan, Stripout IWCP, Personnel Interviews, Building Walkdown
(Briefly describe the assessment approach taken to evaluate this functional area)

Records Reviewed: *(List Format)*
RWPs, ALARA Review, Close-out Radiological Survey Plan, Stripout IWCP

Interviews Conducted: *(List Format)*
B123 Radiological Engineer (informal)
B123 Rad Ops Foreman (informal)
B123 Project Management (informal)

Activities Observed: *(List Format)*
None

Conclusions Findings:
See attached pages.
(An individual item that does not meet requirements or performance expectations)

Weaknesses/Strengths:
See attached pages.
(See Definitions)



Assessor Signature

11/26/97

Date

Building 123 DOE RFFO ERE Radiological Protection Observations

General Observations and Conclusions:

Based on a review of the B123 Decommissioning Equipment Stripout documentation, the K-H Environmental Readiness Evaluation (ERE) was less than adequate and the RMRS Project Team is not ready to proceed with the stripout phase. For example, the Close-Out Radiological Survey Plan for B123 was not approved or reviewed by the K-H ERE Team, nor had the Team determined whether the Close-Out Survey was a part of the stripout phase (which it should be). This problem indicates that the scope of work has not been adequately identified. Additionally, numerous technical errors exist in the RWPs, ALARA Review, Close-Out Radiological Survey Plan, and IWCP. The type of technical errors identified in the DOE RFFO review should have been self-identified by the RMRS Project Team and K-H ERE Team. Listed below are findings concerning the RWPs, ALARA Review, Close-out Radiological Survey Plan, and IWCP. This list is not all inclusive and further reviews should be performed by the K-H ERE Team and the RMRS Project Team.

Based on discussions with RMRS and DWRS Project Management, it is evident that numerous, recent changes in project scope and work documents have taken place. Since many of the changes are so new, it is unlikely that the K-H ERE Team has evaluated these changes. For example, all of the asbestos work will be done by a sub-contractor using a stand-alone asbestos IWCP. However, the IWCP (FB0410-03-2, Rev 0) given to DOE RFFO for review (and presumably the IWCP given to the K-H ERE Team) contained sections for asbestos removal, in addition to all other equipment strip-out work tasks. The B123 Project Radiological Engineer was not aware that this change had taken place, nor has he reviewed the new asbestos IWCP for adequacy. Prior to the start of the B123 Strip-Out Phase the K-H ERE Team and the RMRS Project Team should go back and re-review the project scope and work documents.

General RWP - Pre-Start Findings:

1. Since most of the RWPs have a different title but contain the same requirements, these RWPs should be combined. Due to the specific scope of work and in order to minimize worker confusion, the number of RWPs should be as limited as possible for the stripout phase, no more than two or three RWPs should be sufficient to cover all tasks.
2. The survey frequency of the RWPs was stated as "As per Rad Ops Supervision." The use of this statement should be minimized and does not meet the intent of HSP and ROI requirements.
3. The requirements for a Post-Job ALARA Review are different between HSP 6.07, Section 7.11 and REP 1002, Section 5.4. The RWP should reference REP 1002, Section 5.4. since the requirements are more encompassing. A DMR should be generated to make these procedures consistent.

4. The IWCP for the Stripout Phase (FB0410-03-2) requires radiation surveys per ROI 01.01, however, the RWP only require contamination surveys, not radiation surveys.
5. RWPs were missing Job Supervisor employee # and signature.
6. RWPs reference AHA for additional PPE requirements. Due to this reference, the AHA would have to be available and read before each entry. In order to ensure RWP compliance the RWPs should stand alone.
7. There is a suspension limit of 5 mrem/hr, however, radiation surveys are not required to verify the suspension limit is reached.
8. The RWPs are not clear on the Rad Ops Coverage. Note [5] is not clear when a full time RCT is required or when an On Call RCT is required.
9. Of the RWPs provided for review, there was no discussion or controls for size reduction of equipment.

Specific RWP - Pre-Start Findings:

RWP 97-123-0003

1. RCAs allowed on the RWP are RMAs and CAs only, however, the suspension limits are 150,000 dpm/100cm² beta/gamma removable and 50 DAC (150,000 dpm/100cm² beta/gamma removable exceeds CA limits and 50 DAC would be an ARA).
2. The RWP references ALARA Review 97-123-003, however, the ALARA Review is only applicable to areas posted HCA, this RWP does not cover work in HCAs.

RWP 97-123-0007

1. RCAs allowed on the RWP are HCAs only, however, the suspension limits are 2000 dpm/100cm² alpha and 150,000 dpm/100cm² beta/gamma removable (2000 dpm/100cm² alpha removable is the low end of the HCA limit, and 150,000 dpm/100cm² beta/gamma removable is not a CA or HCA limit).
2. There is a suspension limit of 50 DAC, however, ARA is not listed as an allowed area for entry.
3. No double PPE required as per Site RCM for work in an HCA.

RWP 97-123-0005

1. RCAs allowed on the RWP are RMAs and CAs only, however, the suspension limits are 150,000 dpm/100cm² beta/gamma removable and 50 DAC (150,000 dpm/100cm² beta/gamma removable exceeds CA limits and 50 DAC would be an ARA).
2. The RWP references ALARA Review 97-123-003, however, the ALARA Review is only applicable to areas posted HCA, this RWP does not cover work in HCAs.
3. Note [6] is a generic requirement for most work and should be incorporated in the IWCP and not on the RWP.
4. Note [7], define "contamination free" and "elevated."
5. ALARA Job Review # missing in Approval Section.

RWP 97-123-0001, RWP 97-123-0002, RWP 97-549-6315, and RWP 97-549-6314

1. These RWPs were marked "Information Only" and "Draft," therefore, these RWPs were not reviewed.

ALARA Review, Rev 0 - Pre-Start Findings:

1. Heading - RWP No. missing.
2. Section I - Job description is for work in HCAs, however, RWPs for work in CAs reference this ALARA Review.
3. Section II - The words "Site Radiological Control Manual" should be added before "Table 2-2."
4. Section II - Air purifying respirators are not allowed on any of the RWPs. A note should be added that work will stop if >50 DAC and RWPs, ALARA Review, etc. will be reevaluated.
5. Section III - Per the RWRC training matrix, only 5 of 26 workers are qualified on glove bags.
6. Section III - Normally, pre-evolutionary briefings are not held before unplanned emergency conditions manifest.
7. Section IV - There is a suspension limit of 5 mrem/hr, however, radiation surveys are not required on the RWPs to verify the suspension limit is reached.
8. Section IV - The statement about full-face respiratory protection should also appear on the applicable RWP(s).
9. Section IV - The statement "Full time RCT support is required" contradicts the On-Call requirements of the RWPs.
10. Section IV - In the section titled "The use of solvents to soften the mastic," the word *minimizing* should be used instead of "preventing."
11. The ALARA Review is lacking specific information on when, where, and how glove-bags and containments will be utilized.
12. The ALARA Review is lacking specific information on when, where, and how size reduction of contaminated equipment will be performed and controlled.
13. The ALARA Review should specify how the HCA areas will be established and controlled.

Close-Out Radiological Survey Plan, Rev 0 - Post-Start Findings:

1. The Close-Out Radiological Survey Plan (CRSP) for B123 was not approved or reviewed by the K-H ERE Team. A member of the K-H ERE Team who is an SME on MARSSIM should review the CRSP for adequacy.
2. The K-H ERE Team should ensure that the Close-Out Survey is part of the stripout phase and documented as such.
3. There is no discussion as to how the source storage wells, process waste sumps or potentially contaminated slabs will be handled and/or surveyed.
4. There is not adequate justification given for the survey unit classifications. Using characterization data and process history, technical justifications should be documented for each survey unit classification. A synopsis of the characterization data for each survey unit should be documented in the CRSP.

5. There is no discussion as to why building systems (e.g., fire protection, steam system, plant air, domestic water, sanitary sewer, etc.) and any other non-impacted areas, if any, are not included in the CRSP.
6. No discussion or guidance is given on how to investigate, document and resolve elevated areas, hot spots, and anomalies in the survey data.
7. There is no discussion on what statistical evaluations will be performed on the survey data or how this data will be reported.
8. Section 6.1 Step 3 - Based on a SAC-4 MDA of 18 dpm, the SAC-4 should not be used to count alpha smears since 18 dpm is 90% of the release limit of 20 dpm and does not meet the goal of using instruments which have an MDA of 50% of the release limit.
9. Section 6.1 Step 3 - The instrument (Ludlum 31) that will be used in Group 15 is not listed in the instrument table. The use of this instrument should also be included in a note on the Group 15 survey instruction form.
10. The purpose of Appendix B is not clear. The title of Appendix B is "MARSIMM Statistical Methodology," based on a review of the appendix, it does not cover what the title indicates. Why was only removable alpha and fixed beta calculated when other types of surveys will be performed, such as removable beta and fixed alpha? How do the results of these calculations effect the survey instructions? Why is the LBGR based on professional judgment when there is characterization data to support this value? What is the technical justification for the "assumed" distribution of survey results being 9 ± 3 dpm/100cm², shouldn't this be determined from the characterization data? What does the term (0.05/0.01) mean in terms of the fixed beta result? More discussion is needed in this appendix to explain the calculations and how they relate to the CRSP. Additionally, as the title indicates, statistical methods of how the data will be handled should be discussed.
11. Appendix C - The signature page should be included in the review/approval page at the front of the CRSP.
12. Appendix C - The Activity Hazard Analysis should be a separate appendix since it is not radiological survey instructions as the appendix title indicates.
13. Appendix C - Groups 1 and 24-28 instructions are missing Note (4).
14. The survey instructions under Appendix C columns "# Removable alpha/beta survey measurements" and "# Direct alpha/beta survey measurements" do not match the survey requirements in Section 4.4 Class 1,2 and 3, Survey and Sampling Requirements. For example, Appendix C, Group 15, Survey Unit 34 instructions state "Minimum of 3/plane", however, the Section 4.4, Class 2 requirements state "one fixed alpha and beta total surface activity measurement for each one square meter (nine square feet) with a minimum of 5 per wall and/or 10 per floor." There is no discussion as to why the requirements are different than the instructions, or how and if the instructions will satisfy the requirements.
15. Appendix C - Group 15, There should be additional instruction for Group 15 to indicate how beta-gamma surveys will be performed since they are different from the normal beta only surveys. Additionally, Note 3 should have the word "gamma" added after "beta."

16. Appendix C - Note (1) survey maps were not attached to the CRSP and therefore, not available for review.

IWCP FBO410-03-2, Rev 0 - Pre-Start Findings:

1. As noted above, the IWCP requires radiation surveys per ROI 01.01, however, the RWPs only require contamination surveys, not radiation surveys.
2. There is no signature block for completion of the Close-Out Radiological Survey Plan.
3. The appendices were not attached to the IWCP and therefore, were not reviewed.
4. The IWCP is lacking specific information on when, where, and how glove-bags and containments will be utilized.
5. The IWCP is lacking specific information on when, where, and how size reduction of contaminated equipment will be performed and controlled.
6. The IWCP is lacking specific instructions on how to handle contaminated concrete slabs. Since the building provides an acceptable containment, the slabs should be decontaminated or removed during the Strip-Out Phase and not during Environmental Restoration phases.

ASSESSMENT OBSERVATION

Assessment ID Number: 97-047-AI-CERCLA

Date: September 26 - November 26, 1997

ASSESSOR: Eva Jean Bryson, Technical Assessment Division

Criteria

Decommissioning project and facility activities are focused on major planning and analysis activities for the purpose of establishing an overall safety basis. Individual project tasks are then planned, executed, and monitored. The project and facility activities include project planning, facility hazard characterization and baseline assessment, engineering analysis and technology selection, identification of applicable safety and health requirements, project hazard analysis, and establishment of project safety documentation.

Approach

In order to determine the adequacy of Building 123 Decommissioning, Decontamination, and Demolition, document and record reviews and an overall assessment of the Kaiser-Hill and its subcontractors were conducted to confirm if Kaiser-Hill and the subcontractors could successfully disposition the facility without any adverse impact to the safety envelope, the safety and health of the workers and the public, or the environment. This assessment covers Phase I Equipment Removal.

Records Reviewed:

- ◆ Closure Projects Engineering and Integration Oversight of Building 123 Equipment Stripout 97-0148-KH, dated November 18, 1997
- ◆ Proposed Action Memorandum for the Decommissioning of Building 123, Revision 4, Document Control Number RF/RMRS/97-012, dated August 21, 1997.
- ◆ Building 123 Decommissioning Project Health and Safety Plan, Document Number RF/RMRS-97-022#48, Revision 9, dated June 1997
- ◆ Safety and Health Plan for Building 123 Strip-out Project, dated October 1997 (DWRC)
- ◆ Soil Sampling and Analysis Plan to Characterize Individual Hazardous Substance Sites (IHSS) 121 and 148 at Building 123, Document Number RF/RMRS-97-023, dated August 1997
- ◆ Reconnaissance Level Characterization Report for Building 123, Document Number RF/RMRS-97-021, dated August 1997
- ◆ Lead Characterization Report, Building 123, Revision 0, dated May 1, 1997 (SEC for RMRS)
- ◆ Waste Management Plan Building 123, Document Number RF/RMRS-97-029, dated June 1997
- ◆ Asbestos Characterization Report, Addendum to Building 123 Inspection, Revision 1, dated June 6, 1997 (SEC for RMRS)
- ◆ Construction Package Building 123 Asbestos Abatement, Revision 1, Authorization No. FB0410, dated August 26, 1997
- ◆ Safety and Health Program, Revision 0, Document Number RF/RMRS-96-0065, dated January 1997
- ◆ RFETS Emergency Plan, Revision 0, EPLAN-97, Document Number PADC-97-00336, dated February 28, 1997
- ◆ Activity Hazard Analyses Transmittal No. 97-182-DWRC, Work Order No. KH415278MC, dated November 13, 1997 (DWRC for RMRS)
- ◆ Building 123 Decommissioning Project Execution Plan, Revision 3, dated August 21, 1997
- ◆ RFETS Facility Safety Analysis Building 123 Radiological Health/Analytical Laboratories, Revision 0, dated April 1997

Interviews Conducted:

N/A

Activities Observed:

N/A

Conclusions

Finding:

Section 4.4 Hazard Analysis (AHAs/JSAs) of the Safety and Health Program identifies several specific steps to be taken when developing the hazard analysis. Section 1.1 Scope and Applicability of the Building 123 Decommissioning Health and Safety Plan states "The AHA will identify the principal steps involved and the sequence of work activities, the potential safety and health hazards associated with each step, the specific controls associated with each potential hazard, the task specific special equipment to be used in performing the activity, and monitoring requirements." Section 1.6 Health and Safety Plan Development prescribes that the AHA will include "Actual corrective measures planned to control or mitigate identified hazards." The AHAs do not meet these requirements, particularly the requirements to develop controls for the identified hazards. The concurrence of the job supervisor and the safety and health representative raises concerns regarding appropriate review. A comprehensive review of specific safety and health hazards, the analysis conducted to identify the specific hazards, and control measures to mitigate these hazards will need to be performed prior to project initiation.

Observations:

Section 3.2 Worker Health and Safety of the Proposed Action Memorandum for the Decommissioning of Building 123 states that "The project will comply with OSHA construction standards for Hazardous Waste Operations and Emergency Response, 29 CFR 1926." As was previously identified in the Decommissioning Project Execution Plan Assessment, dated May 27, 1997, the citation is wrong. The correct citation for Hazardous Waste Operations and Emergency is 29 CFR 1910.120. The Safety and Health Regulations for Construction, 29 CFR 1926, does not address Hazardous Waste Operations and Emergency Response.

Section 6.13 Scaffolds of the Building 123 Decommissioning Health and Safety Plan states that "Fall protection shall be provided to workers during erection and dismantling activities involving 10 feet or more ..." Section 6.14 Fall Protection states that "...from a ladder where the worker's feet are more than 6 feet above the floor or ground ..." and "A full body harness is required for elevated work above 6 ft." Is fall protection required above six feet or ten feet? Do personnel wear fall arrest systems at six feet or ten feet? The discrepancy needs to be clarified.

Section 1.5.3 Building 123 of the RFETS Emergency Plan identifies a specific population for each shift. It further identifies the most significant hazards as being hydrochloric acid, nitric acid, and hydrofluoric acid. Since the RFETS Emergency Plan governs emergency response on the site for several response organizations, the number of personnel identified who could be affected in this building by an emergency needs to be current with the actual number of personnel impacted. Emergency response units will use this figure to plan accordingly. Further, the three acids identified as significant hazards have been removed and replaced with perchloric acid crystals. Response organizations should be made aware of the change in the hazard status for the building.

Assessor Signature/Date

Dwa Jean Bupow *Nov 25, 1997*

AMEC ENVIRONMENTAL READINESS EVALUATION

Assessment ID Number: 97-047-AI-CERCLA

Part A: Readiness to Proceed with Strip out of Building 123

Assessor William Fitch November 23, 1997

Assigned Area: Regulatory Compliance

CERCLA National Contingency Plan RFCA RCRA CCR

Criteria:

The 123 Decommissioning and Demolition Project addresses four buildings: 123, 123S, 113, 114. The ERE is planned to be conducted in three steps: Equipment strip out, Asbestos Removal, and Demolition.

This review is specific for the Equipment strip from Building 123. There is no equipment to strip out from the other three buildings. The criteria applicable are as follows:

RFCA/CERCLA/NCP/RCRA

RFCA § 70 establishes decommissioning as a non-time critical removal action performed under CERCLA.

RFCA § 96 establishes three forms of accelerated actions: Proposed Action Memorandum, Interim Measure/Interim Removal Action, and Rocky Flats Cleanup Agreement Standard Operating Protocol. The 123 Demolition was proposed for regulatory approval as a Proposed Action Memorandum.

RFCA Attachment 9 establishes a requirement that a Reconnaissance Level Characterization be performed and a report be provided.

RFCA § 283 reaffirms the maintenance of an Administrative Record to provide the information used to make decisions concerning accelerated actions.

RFCA Attachment 10 establishes a process for Interim Status RCRA/CHWA Unit Closure.

RFCA §118 establishes the review and approval process for Sampling and Analysis Plans created for characterizing contamination outside of or beneath buildings.

RFCA § 118 also establishes the review and approval process for Proposed Action Memoranda.

RFCA § 121 establishes the requirement that the draft Proposed Action Memorandum be subject to public comment.

RFCA §120 establishes the submittal of Reconnaissance Level Characterization Reports to the Lead Regulatory Agency.

Approach:

The subject documents have been obtained and reviewed to establish they are adequate and have received the required review and, where applicable, approval.

The documents are:

**Proposed Action Memorandum
Draft Reconnaissance Level Characterization Report
Administrative Record
Partial Closure Plan for Building 123 Components of RCRA Unit 40
Sampling and Analysis Plan
Project Execution Plan**

The Flushing of Fume Hoods was not reviewed..

Interviews Conducted:

None

Activities Observed:

None

Conclusions:

All required documents have been reviewed except for the Flushing of Fume Hoods and the Administrative Record.

Concerns:

The documents reviewed are in order.

The Closure Plan for partial Closure of RCRA Unit 40 is not yet approved and requires a 45 day public comment period prior to approval. Kaiser Hill has stated they plan to proceed at risk without the approved closure plan.

The Final Radiation Survey Plan has not been made available for review.

Flushing of Fume Hoods description has not been available for review.

Observations:

Proposed Action Memorandum

The RFCA process was followed. The draft Proposed Action Memorandum was prepared and submitted to CDPHE in late May, 1997. The draft was subject to public comment. No comments were received. CDPHE provided comments, which were incorporated. CDPHE approval of the Proposed Action Memorandum received on August 27, 1997.

Draft Reconnaissance Level Characterization Report

The RFCA process was followed. The building was characterized at the reconnaissance level. Kaiser Hill provided a Reconnaissance Level Characterization Plan which described the characterization. This was provided to RFFO and CDPHE (with a copy to EPA) after the characterization was complete. The characterization report which described the activities conducted was furnished to CDPHE with a copy to EPA.

Administrative Record

The Administrative Record was reviewed by Kaiser Hill and found to be satisfactory. A review should have occurred in May prior to submittal of the draft PAM. The Administrative Record should have been certified as complete by Kaiser Hill prior to execution of approval of the Proposed Action Memorandum by CDPHE in August 1997.

Partial Closure Plan for Building 123 Components of RCRA Unit 40

Kaiser Hill failed to use the RFCA approach available, whereby the current process waste lines in and leaving Building 123 could have been closed as part of the decommissioning; i.e., by including their closure in the Proposed Action Memorandum. In fact, the partial closure of RCRA Unit 40 was not addressed until the issue was raised in CDPHE comments on the Proposed Action Memorandum in June 1997. The draft Closure Plan has been developed in consultation with CDPHE and RFFO. On November 22, the Closure Plan was submitted for CDPHE approval.

Kaiser Hill has advised RFFO that they intend to remove the above ground portions of the piping before the Closure Plan is approved, accepting the risk of doing work without an approved Closure Plan in place. RFFO has informally discussed this

approach with CDPHE and has received CDPHE assurances that this is not an unusual approach.

Sampling and Analysis Plan

The RFCA process was followed. The Old Process Waste Lines are, by definition, not part of RCRA Unit 40, having been replaced by new lines. They are part of the former Operable Unit 9, and are the subject of the Sampling and Analysis Plan. RFFO submitted the draft Sampling and Analysis Plan in September. After consultation with CDPHE, the Sampling and Analysis Plan was submitted for formal approval on November 22.

Project Execution Plan

Rocky Flats project management procedures were followed. The Project Execution Plan was approved by RFFO immediately after the approval of the Proposed Action Memorandum

William Fitch

William N. Fitch

November 23, 1997

ASSESSMENT OBSERVATION FORM

Assessment ID Number: 97-047-AI-CERCLA

Date: 25 Nov 97

ASSESSOR: J. A. Dion

Criteria

Applicable or Relevant and Appropriate Requirements as required by the Comprehensive Environmental Response Compensation and Liability Act, and the Rocky Flats Cleanup Agreement, specifically:

Colorado Air Quality Control Commission Regulation 8 Control of Hazardous Air Pollutants,
Part A, Subpart H: Radionuclides
Part A, Beryllium
Part B: Asbestos
Part C: Lead

Colorado Air Quality Control Commission Regulation 15: Ozone Depleting Compounds
Colorado Air Quality Control Commission Regulation I: Smoke and Opacity
Colorado Air Quality Control Commission Regulation 3: Air Pollutant Emission Notices
RCRA/TSCA Waste Identification/Characterization/Packaging/Storage/Disposal

Approach

Document reviews and personnel interviews

Records Reviewed:

Closure Projects Engineering and Integration Oversight of B123 Equipment Stripout 97-0148-KH
Proposed Action Memorandum for the Decommissioning of Building 123
Memorandum From C. A. Patnoe, K-H to D. E. Steffen, RMRS, Dated August 6, 1997
Reconnaissance Level Characterization Report, August 1997
Waste Management Plan Building 123, June 1997
Waste Management Plan Matrix, November 10, 1997

Interviews Conducted:

Carol Patnoe K-H Compliance and Performance Assessment Air Quality Management
Rob Garren, Radian Corporation
Mike Putney, Radian Corporation
Tom Kalivas, Radian Corporation
Greg Sollner, K-H Compliance and Performance Assessment

Activities Observed:

None

Summary/Conclusions:

No Findings
No Strengths

General:

All the above listed environmental regulatory requirements have been met for start-up of the Strip-Out phase. Identified weaknesses are not significant enough to delay start-up. Additional environmental requirements will have to be met during execution of the Strip-Out phase.

Subpart H Radionuclides:

The applicability of Subpart H is based on available historical data and process information provided in the Reconnaissance Level Characterization Report. The contractor and RFFO review of this Report indicate there are no radionuclide monitoring or regulatory approval requirements for the Strip-Out phase of the Building 123 decommissioning project.

Weakness: If a new source of contamination is discovered during Strip-Out, the radionuclide requirements will need to be reevaluated. There is no formal mechanism for notifying K-H/Radian of such a discovery. However, K-H/Radian is preparing a memorandum to RMRS requesting immediate notification if a new source of contamination is discovered. This is not a substitute for a formal procedural mechanism, but should increase the likelihood of notification.

Part A: Beryllium (Be)

Building 123 survey data indicate very low levels of Be contamination. At these surveyed low levels Building 123 Be air emissions are below regulatory concern.

K-H/Radian has determined from survey data that Be contamination in Building 123 is below regulatory concern for air emissions.

Part B: Asbestos:

The asbestos plan is still draft and not available for RFFO review. It will be submitted prior to any asbestos removal during the Strip-Out phase. The plan will be reviewed for adequacy by K-H/Radian prior to submittal to CDPHE. Submittal of the plan is not a requirement, only notification is a requirement. K-H/Radian will handle both notification and plan submittal. Because no asbestos removal will take place during the beginning of the Strip-Out phase, compliance with asbestos regulations is not a requirement for starting Strip-Out.

Part C: Lead:

Because of the removal methods used during the Strip-Out phase there is no potential for the lead standard to be exceeded. The source of lead is paint on walls and trim. Strip-Out does not involve the removal of walls and trim.

Regulation 15

Ozone Depleting Compounds (ODC) have been removed from the Building 123 stationary appliances and portable appliances have been removed from the Building according to verbal communication between K-H/Radian and DynCorp (DCI).

Weakness: K-H/Radian have not been provided forms indicating ODC removal. However, DCI is expected to provide these forms to K-H/Radian in early December.

Regulation 1: Smoke and Opacity

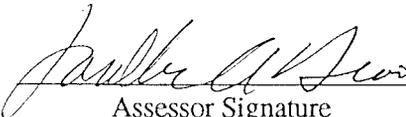
Building 123 project management has been informed that they will need to notify K-H/Radian when portable gas or diesel generators are used for the Building 123 Strip Out. Portable gas or diesel generators

Regulation 3: Air Pollutant Emission Notices (APEN)

Building 123 project management have been informed that they will need to notify K-H/Radian when portable gas or diesel generators are used for the Building 123 Strip Out. Records of fuel use will have to maintained by the operators to ensure compliance with APEN requirements. There are no start-up requirements. Compliance with this regulation is dependent upon notification and record keeping by Building 123 project management.

RCRA/TSCA Waste Identification/Characterization/Packaging/Storage/Disposal

Building 123 project management determined that Strip-Out waste includes RCRA and TSCA identified waste. Provisions for packaging and on-Site storage are in place. Approved programs for off-Site disposal are also in place. If a waste stream not identified in the Waste Management Plan Matrix is generated then project management is required to notify K-H.


Assessor Signature

25 Nov '97
Date

ASSESSMENT OBSERVATION FORM

Assessment ID Number: 97-047-AI-CERCLA Date: 11/26/97 Time: _____

Assessor: Steve Tower (lead assessor)
(Name/Organization of individual performing assessment activities)

Criteria RFETS 1-F78-ER-ARP.001
40 CFR 300.800
Rocky Flats Cleanup Agreement (RFCA)

(Briefly describe the criteria or expectations being evaluated. When applicable include reference to criteria source documents, i.e., DOE Order, Site Procedure, etc.)

Approach:
Conducted a records review and informal interview to determine the adequacy of the Administrative Record for Building 123 Demolition.

(Briefly describe the assessment approach taken to evaluate this functional area)

Records Reviewed: *(List Format)*
Building 123 Administrative Records Document Summary

Interviews Conducted: *(List Format)*
An informal interview was conducted with the Administrative Record clerk in building 116.

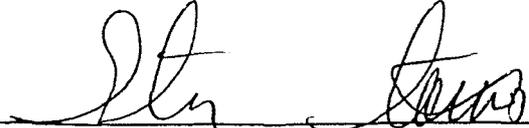
Activities Observed: *(List Format)*
None

Conclusions
Findings:
None

(An individual item that does not meet requirements or performance expectations)

Weaknesses/Strengths:
Observation: The Administrative record (AR) was adequate for the removal action under CERCLA and RFCA but the list of documents did not address public participation specifically but should if a document was publicly released for comments even though there weren't any comments received.
Observation: If a Site Technical Administrative Record Review (STARR) meeting was held, some record of it would be a document worth considering adding to the AR.

(See Definitions)

 11/26/97
Assessor Signature Date

ASSESSMENT OBSERVATION FORM

Assessment ID Number: 97-047-AI-CERCLA Date: 26 November 97 Time: 1100

Assessor: Larry Maghrak/AMPA; Facility Representative
(Name/Organization of individual performing assessment activities)

Criteria: Determine if the Kaiser Hill ERE adequately confirmed the readiness of RMRS, and their subcontractor DWRC, to perform B123 stripout phase of the D&D project. Area of evaluation will primarily focus on IWCP work package, and additional work control practices found in COOP. The fundamental aspects of radiological controls for handling and controlling potentially contaminated materials will be evaluated.
(Briefly describe the criteria or expectations being evaluated. When applicable include reference to criteria source documents, i.e., DOE Order, Site Procedure, etc.)

Approach:
1. Review IWCP package, contractual Statement of Work for B123 stripout, and applicable IWCP appendices.
2. Review PAM, PEP, HASP, RWPs, and other applicable documents provided by KH.
3. Attend RMRS and DWRC meetings.
4. Interview key personnel on KH ERE team, and on RMRS project team to include DWRC supervision.
(Briefly describe the assessment approach taken to evaluate this functional area)

Records Reviewed: *(List Format)*
1. IWCP work package FB0410-03-4; B123 Stripout
2. B123 Stripout plan: This is an appendix of FB0410-03-4 that addresses perchloric flushing of hoods and ducts.
3. Statement of Work from contract between RMRS and DWRC, also an appendix to FB0410-03-4.
4. KH Closure Projects Engineering and Integration Oversight of B123 Equipment Stripout 97-0148-KH.

Interviews Conducted: *(List Format)*
1. KH brief to RFFO ERE team on KH ERE findings.
2. Comment resolution meetings with KH ERE team, RMRS and DWRC.
3. Interview of DWRC supervision.

Activities Observed: *(List Format)*
1. Joint RMRS and DWRC morning meetings for planning of equipment stripout.
2. DWRC morning meeting with craft personnel.

Conclusions Findings:
1. No pre-start or post start findings.
2. Concur that KH has correctly assessed the readiness of RMRS to perform stripout activities from a COOP and procedural perspective.

(An individual item that does not meet requirements or performance expectations)

Weaknesses/Strengths:
See the attached document for discussions, strengths and weaknesses.

(See Definitions)

 11/26/97
Assessor Signature Date

ATTACHMENT TO ASSESSMENT 97-047-AI-CERCLA (B123 ERE)

1. Record Review:

Kaiser Hill (KH) identified the constraint of performing primarily a document review as the means for determining Rocky Mountain Remediation Services (RMRS) readiness to proceed with equipment stripout in their correspondence to RFFO, letter 97-RF-06120 dated November 18, 1997. KH clearly stated that additional activities associated with attendance at production meetings, and pre-evolutionary briefings will be performed in the field as work begins. It is clear in discussion with KH ERE team members that a baseline level of confidence in the readiness of RMRS to begin activities was established during the KH ERE process. The documentation provided with letter 97-RF-06120 supports the KH conclusion that RMRS is ready to begin activities. It is my judgment that, for my area of responsibility, that KH has adequately determined the readiness of RMRS.

My review of the IWCP package, FB0410-03-4 ; B123 Stripout, was conducted twice. These reviews appear to have been conducted in parallel with the KH ERE. The initial review addressed procedural problems associated with IWCP work package development procedure, the referencing of procedures that are past document control periodic review requirements, the difference between requirements documented in FB0410-03-4 and additional requirements that existed in the statement of work, and little or no detail about radiological controls. A formal response was developed for my comments and while it answered most of my comments, I was prompted to perform an additional review, and deferred radiological control issues to Mr. D. Parsons. The second review of FB0410-03-4 attempted to identify requirements that existed in the statement of work that might be appropriate for inclusion into the body of the work package. The comments were discussed at a meeting with KH and RMRS personnel. A review of revision 1 to FB0410-03-4 identified that some comments were resolved by revising the work package.

My review of the B123 Stripout Plan, an appendix to FB0410-03-4, identified that this appendix addressed the perchloric flushing of hoods and duct work. The most significant comment from this review was associated with the potential emission of water from a vent duct to atmosphere from a system that was considered to be potentially radiologically contaminated. The procedure did not recognize the radiological implications should this occur. This procedure defers radiological controls to the RWP, and there was no RWP to review. As noted earlier radiological control issues were deferred to Mr. Parsons. A meeting with KH, DWRC and Resource Technology Group (RTG) was held to address my comments.

The procedure review process indicates that KH adequately reviewed the procedures to be used for B123 equipment stripout. Work package development is SATISFACTORY. Weaknesses are noted below.

Weaknesses :

- There is no evidence that RMRS or KH recognized that a number of procedures used in the development of the work package, and the decontamination procedure included as an appendix, for equipment removal were past their periodic review dates. Periodic reviews of procedures, such as Health and Safety Practices (HS&P), are a requirement of a Level 1 site procedure. Periodic reviews ensure the technical accuracy of the procedure and provide a method to incorporate changes in technology or procedural improvements. The condition of the periodic review of procedures has been documented in other assessments. For this reason no actions are required associated with periodic reviews for B123 stripout.

ATTACHMENT TO ASSESSMENT 97-047-AI-CERCLA (B123 ERE)

- The reliance on Statements of Work incorporated as an appendix to an IWCP work package introduces the possibility that some requirements may be missed. While the end user of the work package may be familiar with the requirements within the statement of work, it has been my experience that in the course of performing work some of these requirements may be missed. It is not clear how changes made to an appendix, such as the statement of work, in a IWCP work package are integrated with the IWCP change requirements. It appears that changes to requirements could be made to the statement of work independently of the organizations that originally concurred to the work package.
- It appears that other organizations on site will be expected to provide services, such as draining water from systems, without their concurrence on the cover of the work package. Assuming that organizations are prepared to perform what may appear to be simple evolution's, can easily develop into delays in schedule.
- Poor coordination and communication during facility transition to a D&D facility resulted in freeze protection rounds not being performed as required during cold weather. While this may not be directly related to the KH ERE, it occurred during the KH ERE and there is no evidence that RMRS or KH was aware that this condition was allowed to occur. This issue may be related to a lack of guidance on the method for transitioning a building into a D&D status.

2. Interviews Conducted:

While attendance to the KH briefing on their ERE process and conclusions is not a formal interview process, information was exchanged verbally. During the presentation the KH ERE answered questions about the methods used in their evaluation process. The KH team also answered specific questions presented by RFFO team members. KH demonstrated an adequate level of evaluating the readiness of RMRS and DWRC.

Meetings with KH, RMRS, and DWRC to discuss comments made to FB0410-03-4 were demonstrated an interest in providing the best conditions for successful performance of B123 stripout activities. The personnel from KH, RMRS, and DWRC appeared to have considered some of my comments during earlier stages of document preparation, review and approval. For those comments that needed additional consideration KH, RMRS, and DWRC personnel appeared to understand the issues associated with the comment.

Interviews with DWRC Construction Supervisors indicated that they have a SATISFACTORY understanding of work controls, procedural compliance, the IWCP process and LO/TO requirements. The DWRC Construction Supervisors are prepared to perform stripout activities.

The KH assessment that RMRS is ready to begin B123 stripout activities is SATISFACTORY based on interviews conducted.

3. Activities Observed:

My observation of the joint KH, RMRS, and DWRC morning meeting is that all organizations are cooperating to achieve the goal of B123 D&D. This meeting is formally conducted and identified priorities for RCT support, activities to be completed for that day, issues to be addressed, and some consideration of upcoming activities. If these meetings continue to be this informative, with the free exchange of information that I observed, then it is expected that B123 stripout activities will be controlled and safely performed.

ATTACHMENT TO ASSESSMENT 97-047-AI-CERCLA (B123 ERE)

My observation of the DWRC morning meeting with DWRC craft personnel is that expectations for daily activities to be accomplished are being clearly communicated. Craft personnel appear to recognize that there are work controls in place for this project, and are thinking about conditions that could impede completion of their daily activities.

At the DWRC morning meeting with craft personnel there was some evidence of a lack of communication between RMRS and DCI regarding connection of electrical power to the construction trailer. I was aware of this communication problem from attending the DCI Utilities POD meeting the day before. As the Facility Representative for site utilities I attempted to gather appropriate information from DCI and RMRS so that they could work together to get this power connection issue resolved quickly. I consider this event a good example of assuming that services can be readily and easily obtained without prior notification. This is similar to what could occur when DCI is contacted to sign the work package stating that water systems are isolated and drained.

The KH assessment that RMRS is ready to begin B123 stripout activities is SATISFACTORY based on activities observed. The joint morning meeting of organizations is considered a STRENGTH.

ASSESSMENT OBSERVATION FORM

Assessment ID Number: 97-047-AI-CERCLA Date: 11/26/97 Time: 10:40 AM

Assessor: Brandon I Williamson USDOE/RFETS/AMEC/AI
(Name/Organization of Individual performing assessment activities)

Criteria Criteria for this assessment were the conditions set forth in the project documentation such as the DWRC and RMRS Health and Safety Plans (rev. 0 10/97 and rev. 0 6/97 respectively), Waste Management Plan Building 123, RF/RMRS-97-029, and the Proposed Action Memorandum for the Decommissioning of Building 123, 8/21/97.
(Briefly describe the criteria or expectations being evaluated. When applicable include reference to criteria source documents, i.e., DOE Order, Site Procedure, etc.)

Approach:
Training records were compared with the criteria documents to determine whether the required training was completed.
(Briefly describe the assessment approach taken to evaluate this functional area)

Records Reviewed: *(List Format)*
Training records were reviewed for several persons who will be working on the project. The records consisted of a matrix as to what each skill requires as well as a personal file containing each persons certificates recieved from the Training Department. Personal files were compared against the list and the list was compared with the criteria documents.

Interviews Conducted: *(List Format)*
Ernie Bensten, RMRS Waste Management Environmental Coordinator was interviewed in T891C at 0900hrs on 11/25/97.
Ron Heitland, Project Manager was interviewed in T891C at 0930hrs on 11/25/97.
DeanLobdell, RMRS Waste Disposal 1630 hrs. on 11/25/97
Tom Bourgeois, DWRC 1020hrs. 11/26/97 Marlyce Castilleja, DWRC T130A#106 for training records 1500hrs. 11/25/97

Activities Observed: *(List Format)*
N/A

Conclusions Findings:
See attached.

(An individual item that does not meet requirements or performance expectations)

Weaknesses/Strengths:

(See Definitions)

Brandon I Williamson

Assessor Signature

11/26/97

Date

Attachment

Assessment Number: 97-047-AI-CERCLA

Assessor: Brandon I Williamson USDOE/RFETS/AMEC/AI

Conclusions

Findings:

I recommend that the following issue be addressed prior to allowing the start-up of the strip-out phase. Training records were found demonstrating completion of the required training as outlined in both the Statement of Work section 01114 as well as the Safety and Health Plan for Building 123 Strip-Out Project, 10/97, by DWRC. However no documentation was found supporting completion of some of the training requirements as listed in Building 123 Decommissioning Project Health and Safety Plan, RMRS, Rev. 0, June 1997. Interviews with Mr Bourgeois of DWRC showed that he did not believe that the training requirements in the RMRS Health and Safety Plan superceded the others mentioned

Brandon I Williamson
11/26/97

AMEC ENVIRONMENTAL READINESS EVALUATION PLAN

Assessment ID Number: 97-047-AI-CERCLA

Date: 9/26/97

Assessment Driver: ICAP

Assessment Scope:

This assessment will determine if Kaiser-Hill (KH), the Integrating and Management Contractor (IMC), and Rocky Mountain Remedial Services (RMRS) have the program and procedures in place to adequately and safely D&D Building 123. The Environmental Protection Agency (EPA) and the Colorado Department of Public Health and Environment (CDPHE) have approved the actions to be taken to D&D B123. This work will be performed in 3 phases; 1)Equipment removal, 2)asbestos removal, and 3)building demolition. This assessment will determine if the contractors will meet the requirements of the documents that describe the actions for equipment removal and asbestos removal.

Assessment Type: Environmental Readiness Evaluation, Environmental Readiness Review

Frequency: Once

Included in FY97 AMEC Assessment Schedule: Yes

Assessment Techniques: Team

Performance Objectives and Criteria:

The criteria that the contractor will be evaluated against is the Proposed Action Memorandum (PAM) for the Decommissioning of Building 123. The Field Implementation Plan (FIP) further defines the actions described in the PAM. The Health And Safety Procedure (HASP) will be used as the criteria for worker, public and environmental health and safety. The Sampling and Analysis Plan (SAP) defines the criteria for sampling and analysis of material. The following criteria will be used in conjunction with the contractors documents to determine if the decommissioning of B123 would be safely and adequately accomplished if the requirements of these documents and procedures are met.

Core Elements: Each of the core elements listed below shall be addressed.

- Safety documentation is in place that describes the hazards/risks associated with the facility and should identify mitigative measures that protect workers and the public from those hazards/risks.
- There are adequate and correct procedures and safety limits for operating the utility systems.
- A program is established to promote a site-wide culture in which personnel exhibit an awareness of public and worker safety, health, and environmental protection requirements and through their actions, demonstrate a high-priority commitment to comply with these requirements.
- Environmental Compliance requirements are properly identified, approved, and met.
- Lessons learned from previous similar projects have been incorporated into the project plan and documentation.
- Training and qualification programs for decontamination and decommissioning personnel have been established, documented, and implemented. (The training and qualification program encompasses the range of duties and activities required to be performed.)

- Level of knowledge of decontamination and decommissioning personnel is adequate based on reviews of examinations and examination results and selected interviews of operating and operations support personnel.
- A process has been established to identify, evaluate, and resolve deficiencies and recommendations made by oversight groups, official review teams, audit organizations, and the operating contractor.
- Functions, assignments, responsibilities, and reporting relationships are clearly defined, understood, and effectively implemented with line management responsibility for control of safety.
- A systematic review of the facility's conformance to applicable DOE Orders has been performed, any nonconformances have been identified, and schedules for gaining compliance have been justified in writing and formally approved.
- The technical and managerial qualifications of those DOE personnel who have been assigned responsibilities for providing direction and guidance to the contractor are adequate.
- The breadth, depth, and results of the responsible contractor review are adequate to verify the readiness of the facility for the decommissioning project.
- The technical and management qualifications of contractor personnel responsible for facility operations are adequate.

Deliverables:

Draft Report - 10/14/97

Final Report - 10/15/97

Logistics Preparation:

- Clearance Requirements - None
- Radiological Protection Requirements - As required by RWP
- Worker Safety Requirements - Per OSHA
- Transportation Requirements - None
- Training Requirements - None
- Assessment Schedule - Start ?, Final Report ?
- Contractor Interface - In brief will be scheduled, out brief will be scheduled.
- Other

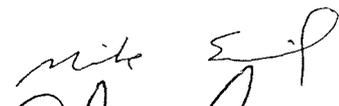
Scope of Work:

- Review HASP, ensure required protective equipment, pause/hold/stop points, response requirements for unplanned events, and other measures taken for the protection of workers, the public, and the environment are adequate, well defined and can be implemented, including review of Activity Hazard Analysis (AHA) - *Parsons, Bryson, Maghrak*
- All regulatory compliance requirements are met. Specifically, Comprehensive Environmental Response Compensation and Liability Act (CERCLA), National Contingency Plan (NCP), Rocky Flats Cleanup Agreement (RFCA), Resource Conservation and Recovery Act (RCRA), and the Colorado Code of Regulations (CCR). - *Dion, Fitch, Grillon*
- Walkdown the whole work area to ensure that necessary protective and emergency equipment is available - *Parsons, Maghrak*
- Ensure that adequate emergency preparedness is in place for radiological, industrial, and environmental accidents - *Parsons, Bryson*
- Ensure contingency plans are in place if higher than expected levels of radiological contamination, or any other unexpected contaminations are found - *Parsons*

- Form team, set up meetings, contractor briefs - *Erickson*
- Review management and chain of command structure for adequacy so that problems are promptly raised to the proper level and appropriately dispositioned. Management programs are established, sufficient numbers of qualified personnel are provided, and adequate facilities and equipment are available to ensure support services are adequate for safe operations. - *Erickson*
- Permit waivers for Temporary Units (TU) are planned for and available if needed - *Erickson*
- Sufficient resources are available to complete the project. - *All*
- Review the draft contract for the asbestos removal. This contract needs to clearly show how the sub-contractor will meet and comply with the Rocky Flats requirements - *Bryson*
- Ensure that any lead abatement is performed in accordance with applicable regulations. - *Bryson*
- Walkdown the whole work area to ensure that the necessary monitoring equipment is available - *Fitch, Maghrak, Bryson*
- Review SAP, ensure that the implementation of this plan for adequacy to protect the workers, public, and the environment, and can and will be adequately carried out - *Dion*
- Review clean-up and close out activity plans for adequacy - *Dion*
- Evaluate proper disposition of wastes generated during the decontamination and decommissioning - *Williamson*
- Review FIP, ensure that the FIP meets all the requirements of the PAM and properly refers to the HASP & SAP when needed - *Maghrak*
- Handling, transportation and transfer of radiologically contaminated material - *Parsons*
- Handling, transportation and transfer of asbestos - *Bryson*
- There are adequate and correct procedures and safety limits for operating the utility systems. - *Maghrak*
- Level of knowledge of decontamination and decommissioning personnel is adequate based on selected interviews of decontamination and decommissioning personnel. - *Maghrak, All*
- Review operator and management training for the remediation including the sub-contractor for the treatment (OSHA, RCRA, Rad. worker, and project specific training). Training and qualification programs for decontamination and decommissioning personnel have been established, documented, and implemented. - *Grillon*

Assessment Team:

<u>Name</u>	<u>Assessor Qualification</u>	<u>Technical Competency</u>
Mike Erickson	Lead Assessor	Operations, Environmental
Bill Fitch	none	D&D, Environmental
Jon Dion	Lead Assessor	CERCLA
Duane Parsons	Assessor	Health & Safety
Larry Maghrak	Assessor	H&S, Operations, Environmental
Brandon Williamson	Lead Assessor	Operations, Environmental
Eva Jean Bryson	Assessor	H&S
Joy Grillon	none	RCRA

Prepared by: Mike Erickson,  9/26/97

Approved by: Steve Tower,  9/26/97