

ASSESSMENT REPORT

ENVIRONMENTAL MANAGEMENT DEPARTMENT OPERATING PROCEDURES, VOLUME 1: FIELD OPERATIONS

Report No.: A-SAA-93-004

Assessment Conducted: February 2, 1993 to March 19, 1993

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EXECUTIVE SUMMARY

Environmental and Waste Assessments/Audits (EWA/A) conducted an assessment of the Environmental Management Department (EMD) Field Operations Standard Operating Procedures (SOPs), hereafter referred to as the Field SOPs. The purpose of the assessment was to evaluate the relationship of the Field SOPs with other EMD procedures, documents, and external regulatory requirements to determine if the relationship is readily identifiable. An additional objective of the assessment was to appraise the general utility of the Field SOPs as a source of guidance for field operations personnel.

The Rocky Flats Plant (RFP) Policy Manual (Section 7, Policies And Procedures System) stipulates that "... a hierarchy of documents shall be employed such that the relative relationships among policies and procedures is readily identifiable. Those documents shall clearly define policy, assign responsibility, and provide for accountability along functional program lines." After reviewing the hierarchy of documents in the EMD structure, it was evident that the relationship that exists, in particular that of the Field SOPs with other departmental procedures, is neither readily identifiable nor does it clearly define the aforementioned policy requirements.

EXECUTIVE SUMMARY (continued)

The conclusions reached, as a result of this assessment, indicate that:

- There are no instructions or procedures in the Field SOPs for reporting nonconformance deficiencies or for linking with the plant-wide Nonconformance Report (NCR) program to ensure independence in review and disposition. This conclusion is supported by a finding directed at the EMD Administrative NCR Program.
- Not all field operators are assuming responsibility for custody of environmental media containers in the manner specified by the Field SOPs. This deficiency is discussed in a finding that resulted from interviews with field operations personnel.
- The Field SOPs do not always provide adequate guidance and instructions for field operators, both EG&G and subcontractor. Findings that identify this inadequacy address both the lack of proper training to the Field SOPs and the management of environmental media and waste.

The conclusions are supported by four findings and four concerns. The findings address NCR requirements in higher level procedures; subcontractor responsibility for environmental media containers; training; and management of waste and environmental media. The concerns address the point of contact between the EM NCR Program and the plant NCR Program; procedural breaks in the document hierarchy; policies not clearly defined in the Field SOPs; and the lack of instructions in the Field SOPs for disposing of laboratory waste.

1.0 BASIS OF ACTIVITIES

1.1 Scope

The intent of this assessment was to observe field operation activities, including corrective action measures and training, that encompass the control, containment, handling, and movement of decontamination, purge, and development water; drilling and cutting fluids; environmental media; and contaminated Personal Protective Equipment (PPE). Field observations were evaluated upon the basis of compliance with instructions as found in the Environmental Management Field Standard Operating Procedures (SOPs), hereafter referred to as the Field SOPs, Environmental Management Department (EMD) Operating Procedures, Volume 1: Field Operations. The assessment did not evaluate any technical memos or subcontractor procedures used in specific field treatment processes. The following activities formed the basis for performance of the assessment:

- Field observations of operating units, decontamination facilities, and storage facilities;
- Personnel interviews (i.e., project managers, support personnel, and subcontractor employees);
- Review of Administrative SOPs, Program Management Plans, field operation instructions (addendums, memos, etc.), and plant policies, procedures, and guidance sources; and
- Review of regulatory requirements (CCR, CFR, DOE Orders).

Interviews were also conducted with personnel from departments external to the Environmental Management Department (Site Quality Engineering, Waste and Environmental Management Systems, Waste Surveillance, and Environmental Compliance Standards).

1.2 Background

An issue relevant to this assessment appeared in DOE Audit #93-QA-L1-002, conducted from November 6, 1992 to December 18, 1992. According to this audit: "The ERM/E&WM Program utilizes an informal corrective action and nonconformance reporting system that does not provide specific criteria as to when an NCR or corrective action is required and is not linked with plant NCR or Issues Management reporting systems."

DOE Field Surveillance Report 93-WM-OOS-891-005 draws a close association with the Field SOPs and subsequent utility, compliance, training, corrective action, and reporting responsibilities. Issues identified in this surveillance were: 1. "... failure to make a hazardous waste determination or to characterize hazardous waste";

2. "... personnel not properly trained -- programmatic problem with the RCRA Training Program"; and 3. "... failure to properly permit and manage hazardous waste tanks (not operated in accordance with Part 265 of 40 CFR or CDH HWRM.)"

As a Corrective Action to number 3, DOE required that, "Any use of SOPs or other documents that allow ERM to not fully comply with the requirements of the CHWR and other applicable environmental regulations must be specifically identified and approved on a case-by-case basis in accordance with plant policy on environmental programs. EG&G RCRA Regulatory Programs, Waste Surveillance, and Environmental Compliance Support must be notified prior to adoption of any such SOP or other document."

1.3 Documents Examined:

- 5-21000-OPS-FO, EMD Operating Procedures, Volume 1: Field Operations
- 3-11000-ADM, EMD Administrative Procedures Manual
- EPA/540/P-87/001, A Compendium of Superfund Field Operations Methods
- 40 CFR part 300.420(c)(4)(i-ii), Remedial Site Evaluation
- EPA/540/G-89 004, Guidance For Conducting Remedial Investigations and Feasibility Studies Under CERCLA
- QAPjP, Rocky Flats Plant Site-Wide Quality Assurance Project Plan for CERCLA Remedial Investigations/Feasibility Studies and RCRA Corrective Measures Studies Activities
- RFP Quality Assurance Manual
- CERCLA-VIII-91-03, RCRA(3008)(H) 0-VIII-91-07, Federal Facility Agreement and Consent Order
- 21000-QAPD, Quality Assurance Plan Description
- DOE Order 5700.6c, Quality Assurance
- EPA/QAMS-005/80, Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans
- EMD Environmental Media Management Plan (dated July 10, 1992)
- DOE Formal Audit 93-QA-L1-002, EG&G Rocky Flats Plant Environmental Restoration/Environmental Protection QA Program (dated December 21, 1992)

2.0 PERSONNEL CONTACTS

2.1 Personnel present at the Pre-Review Meeting:

M. C. Burmeister	Environmental Restoration Facilities Operations
M. P. McCord	Environmental and Waste Assessments/Audits
M. T. McFarren	Environmental and Waste Assessments/Audits
D. W. Pontius	Environmental Restoration Facilities Operations
F. J. Primozic	Environmental and Waste Assessments/Audits
M. J. Ray	Environmental and Waste Assessments/Audits
J. A. Ripley	Environmental and Waste Assessments/Audits
R. A. Sadesky	Environmental and Waste Assessments/Audits
P. A. Savage	Environmental and Waste Assessments/Audits

2.2 Personnel contacted during the assessment:

K. D. Anderson	Radiological Engineering Waste/Environmental
M. A. Bogner	Environmental Restoration Sample Management
M. C. Broussard	Environmental Restoration Facilities Operations
M. C. Burmeister	Environmental Restoration Facilities Operations
W. S. Busby	Environmental Restoration Sample Management
T. J. Corbett	ALARA Programs/Technology
D. J. Frawley	Waste and Environmental Management Systems Programs
G. D. Gallegos	Regulated Waste
P. S. Goode	Environmental Compliance Standards
R. S. Hall	Environmental Restoration Records
L. D. Johnston	Environmental Restoration Management
E. A. Keil	Environmental Restoration Project Management
J. D. McEahern	Site Quality Engineering
T. P. O'Rourke	Environmental Restoration Management
D. W. Pontius	Environmental Restoration Facilities Operations
J. F. Ross	Waste Surveillance
T. D. Schmidt	Environmental Restoration Management
A. K. Schmiechen	Environmental Restoration Protection Operations
D. M. Spruce	Woodward-Clyde
D. S. Vngraefschepe	Riedel Environmental

2.3 Personnel present at the Post-Review Meeting:

G. A. Dingman	Environmental and Waste Assessments/Audits
M. C. Broussard	Environmental Restoration Facilities Operations
M. P. McCord	Environmental and Waste Assessments /Audits
D. W. Pontius	Environmental Restoration Facilities Operations
T. D. Schmidt	Environmental Restoration Management
A. K. Schmiechen	Environmental Restoration Protection Operations
R. A. Sadesky	Environmental and Waste Assessments/Audits
B. L. White	Assessment

3.0 Conclusions

1. The Field SOPs are not a complete resource of instructions and information used by field operations personnel. Although they provide significant procedural information with respect to outlining job-related responsibilities, they do not contain sufficient process instructions to allow field operations personnel to adequately perform a specific task. This disparity requires the user to seek additional information from a variety of other sources, which may not be referenced in the Field SOPs. The field activities portion of the assessment concluded that a measure of discontinuity exists in the Environmental Management (EM) document relationship. It was determined that a number of different documents, instructions, technical orders, or verbal instructions were often necessary in order to complete a specific task. In several instances, there were no indications of how these documents and instructions were related to the Field SOPs. A clearly defined relationship, as required by RFP Plant Policy, should be evident between the various implementing documents and the Field SOPs.
2. Within the structure of the Field SOPs, there is no system for reporting nonconformance deficiencies, or for identifying and initiating corrective action measures.
3. Field operations personnel are not receiving sufficient training in subjects that are relevant to many of the operations governed by the Field SOPs. These subjects include: drilling and cutting fluids; container custody and management (subcontractors, in particular); regulatory and policy issues and requirements; As Low As Reasonably Achievable (ALARA) limitations; and procedure and addendum incorporation, deletions, and changes.
4. The Environmental Restoration (ER) Coordinator and sub-contractor personnel displayed the responsibility and dedication necessary to achieve compliance with the applicable regulations, requirements, and plant policies. As an example of this, team members observed field activities that were not covered or being performed according to the guidance provided by the Field SOPs. In evaluating these procedural noncompliances, the assessment team noted that all activities being performed were to enhance the quality of work. Guidance for some of these activities was not provided by the Field SOPs. However, personnel took the initiative to seek guidance from other sources outside of the ER Organization to perform their job tasks.

The conclusions are supported by 4 findings and 4 concerns that identify specific details associated with each of the conclusions.

4.0 Findings

Finding F-SAA-93-004/01 - Category 3. The Field SOPs do not provide a means for meeting the NCR requirements identified in higher-level procedures.

Discussion

1. There are no references in the Field SOPs to the RFP Quality Assurance Manual (1-50000-ADM, 15.01, Control of Nonconforming Items) or to the EMD Administrative Manual (3-11000-ADM, Section 15.01). In addition, there are no instructions in the Field SOPs for initiating an NCR when required.
2. In a recent audit conducted by the DOE (93-QA-L1-002, dated December 21, 1992), Section F, Issues/Deficiencies/Observations, Issue #I.4, the following evaluation was made: "The ERM/E&WM QA program utilizes an informal corrective action and nonconformance reporting system that does not provide specific criteria as to when a Non-Conformance Report (NCR) or corrective action is required and is not linked with the plant NCR or Issues Management reporting systems. The following concerns are noted:
 - There are no criteria in the QAPjP, QAPD, OU Quality Assurance Addendums or in Environmental Protection documents, which must define when an NCR must be written or when corrective action must be documented;
 - The ER/EP nonconformance and corrective action reporting systems are not linked to EG&G Rocky Flats systems for Issues Management or NCR/Corrective Action Tracking; and
 - Summary reports and corrective action follow-up status on quality problems documented through NCRs are not available."

In reviewing the Field SOPs, it was found that there are no criteria for defining the NCR process nor for reporting NCRs after initiation. Additionally, there are no measures outlined in the Field SOPs that detail the corrective action process. As the EMD Administrative Procedures are the lowest level that actually require the EM NCR Program, it would be difficult for someone who was not familiar with them, or did not have this procedure manual available, to know how to initiate an NCR in the field for activity, equipment, and data deficiencies.

3. Environmental Management was contacted on March 10, 1993 by EWA/A requesting that a review of the internal NCR Program be conducted in order to ascertain how it interfaced with the Field SOPs. EWA/A was informed that no NCRs had been written. No reason was given for the lack of NCRs.
4. The need for NCR initiation was evidenced during interviews with field operations personnel (EG&G and subcontractor):

On February 16th, 1993 an interview was held with the Senior Operator for Riedel Environmental (subcontractor to EG&G). It was noted that Riedel personnel were placing material from a filter treatment process (water treatment sludge) in white drums that had Onsite Hazardous Materials labels applied to them. Upon reviewing their Waste Stream and Residue Identification and Characterization (WSRIC) Book (draft), it was determined that the Item Description Code (IDC) number and process number did not agree. The Riedel Operator acknowledged this discrepancy and indicated that the Project Manager for the Operating Unit (OU) was going to provide Riedel with a new IDC number for this waste stream. Since this material was being packaged to the requirements specified in WO-1101, Solid Radioactive Waste Packaging Outside the PA, the IDC deficiency should have triggered the issuance of a Waste NCR for disposition, as required by WO-1101 and defined by the RFP Quality Assurance Manual (QAM), 1-50000-ADM-15.01, Control of Nonconforming Items.

Supporting References

1. DOE Order 5700.6C (Attachment 1) - Quality Assurance Program Implementation Guide, Part II, Guidance for Developing and Implementing Quality Assurance Programs, Subpart IIA Management, Section 3, Criterion, Paragraph d. Quality Improvement - "All personnel should identify nonconforming items and processes. All personnel should be encouraged by management to identify and suggest improvements. All personnel should be granted the freedom and authority to stop work until effective corrective action is taken."
2. 1-50000-ADM-15.01, RFP Quality Assurance Manual, Control Of Nonconforming Items, Section 2, Scope, Paragraph 2.6 - "Any Rocky Flats employee (or subcontractor employee - per paragraph 2.3) may initiate a Nonconformance Report when an item is identified as having a deficiency in characteristic, documentation, or procedure which renders the quality of that item unacceptable or indeterminate."

3. RFP QAM, 15.01, Section 2, Paragraph 2.7 - "All NCRs must be submitted and processed through the appropriate Facilities Quality Engineering or Waste Quality Engineering NCR Coordinator for review and validation by the Cognizant Quality Organization."
4. RFP Site-Wide Quality Assurance Project Plan (QAPjP), Section 15.3.2, Identification of Nonconformance - "All EM Department and contractor personnel are responsible for the initiation of an NCR upon discovery of a nonconforming item or activity."
5. RFP QAPjP, Section 15.3.2, Disposition of Nonconformances - "NCRs generated by the lack of adequate procedural control, or the improper or ineffective implementation of a procedure, shall receive disposition in the same manner as those involving items, services, samples, or data. Particular attention should be paid to the remedial and investigative action taken to resolve the immediate problem and determine the extent of the deficiency's impact."
6. 3-11000-ADM, EMD Administrative Procedures Manual, Section 15.01, Control of Nonconforming Items and Activities, Responsibilities, Section 4.3 - "EM and subcontractor personnel are responsible for initiating NCRs in accordance with this procedure and for submitting NCRs to the EM QAPM for processing."
7. EMD ADM Procedures, Section 5.1.1, Procedure - "Upon detection of a nonconforming condition, EM or subcontractor/supplier personnel shall initiate and forward an NCR to the EM QAPM for validation."
8. EPA QAMS-005/80, Interim Guidelines And Specifications For Preparing Quality Assurance Project Plans, Section 5.15 Corrective Action - "Corrective action procedures must be described for each project which includes the following elements:
 - The predetermined limits for data acceptability beyond which corrective action is required.
 - Procedures for corrective action.
 - For each measurement system, identify the responsible individual for initiating the corrective action and also the individual for approving the corrective action, if necessary."

Recommendations

- i. The Field SOPs should be revised to establish a direct link between them and the EM Administrative Procedure that details the EM NCR Program.

- ii. The Field SOPs should contain references to the RFP Quality Assurance Manual to indicate the required link to the Plant NCR Program.
- iii. A section or sections should be included in each Field SOP, as appropriate, that provides guidelines for how to generate a NCR and for identifying conditions that would trigger the implementation.
- iv. Ownership of the Field SOPs should be established, with designated individuals for specific Field SOPs identified. These personnel should work under the direction of a lead position. All Field SOPs should be reviewed and revised. A part of the review process should verify the proper flow down of regulations, plant policies, and requirements into the applicable Field SOPs.
- v. Interfacing organizations referenced in Field SOPs, Standard Operating Procedure Addendums (SOPAs), Quality Assurance Addendums (QAAs), the Quality Assurance Program Plan (QAPP), and the QAPJP should be included in the review process, with concurrence signature authority.

Finding F-SAA-93-004/02 - Category 3. Field operations subcontractor personnel are not assuming responsibility of environmental media containers as required by the Field SOPs.

Discussion

1. When interviewing subcontracted field operations personnel about control and custody of environmental material containers in their work areas, the general response was, "We call Environmental Restoration and they handle it." An exception to this was found at the Main Decontamination Facility operated by Woodward-Clyde. The site manager at this facility demonstrated knowledge of the Field SOPs, including accountability and custody issues for drums located at this site.
2. According to Environmental Restoration Management (interview on March 10, 1993), the Environmental Media Management Plan is the basic guidance for EM field operations. The plan identifies a "single point of contact" within Environmental Management for notifying Waste Operations when drum transfers are required. This contradicts the instructions found in the Field SOPs, which delegates this responsibility to the individual subcontractor operating at a specific work area.

Supporting References

1. 1-50000-ADM, RFP QAM, QR-13, Handling, Storage, and Shipping, Paragraph 3.7 - "Material Handlers and Users shall assure that quality related items are controlled in accordance with the requirements set forth in their applicable implementing procedures while these items are in their possession."
2. RFP QAM, QR-13, Paragraph 3.11 - "Environmental Restoration (ER) shall establish and implement a program to delineate requirements and controls over the handling, shipping and storage of items."
3. RFP Site-Wide Quality Assurance Project Plan - (QAPjP), Section 1.0, Purpose - "The handling, storage, and shipping of hazardous wastes are addressed in RFP RCRA Hazardous and Mixed Waste SOPs. ER Program SOPs that deal with decontamination and potentially contaminated equipment, wash water, drilling fluids and cuttings, and residual core and laboratory samples are part of the EG&G Rocky Flats field operations procedures."
4. 5-21000-OPS-FO, EMD Operating Procedures, Volume 1. Field Operations:

FO.08, Handling of Drilling Fluids and Cuttings, Section 3.0 - "The subcontractor is responsible for drumming drill cuttings. Drums containing drill cuttings will be transferred to the custody of EG&G Waste Operations only after the drum's contents have been characterized and the drums have passed inspection."

FO.10, Receiving, Labeling, and Handling of Environmental Materials Containers, Section 3.0, Responsibilities and Qualifications - "The subcontractor is responsible for drumming drill cuttings and other solid materials associated with environmental activities. The transfer of drums to the custody of EG&G Waste Operations personnel shall occur once the drum's contents have been characterized, the drum has been inspected, and space is available at the Waste Operations transfer/storage area."
5. 5-21000-OPS-FO.10, Section 3 "The transfer of drums to the custody of EG&G Waste Operations personnel shall occur once the drum's contents have been characterized, the drum has been inspected, and space is available at the Waste Operation's storage area."

Recommendations

- i. The Environmental Management Department should institute measures that clearly identify responsibility for containers of environmental media.

- ii. A container custody program composed of training and accountability records should be established to ensure that responsibility is verifiable.
- iii. Activities described in the Field SOPs should accurately reflect all field activities being performed. Activities not currently documented in the Field SOPs should be identified and reviewed for incorporation.

Finding F-SAA-93-004/03 - Category 3. Field Operations personnel are not properly trained to the requirements identified in the Field SOPs.

Discussion

1. Each OU specific QAA identifies the applicable Field SOPs for training requirements, and is usually located in Table 1. Section 10 of each OU Work Plan contains the Addendums to the SOPs applicable to a specific OU. Personnel at OU #1 were not able to produce any documented evidence of training to the Field SOPs identified in the unit specific QAA.
2. Documentation of some Field SOP training was provided at OU #2, but it did not include all the Field SOPs identified in the unit specific QAA.
3. The training records for OU #7 were not reviewed by the assessment team. A request was made for these records to the OU #7 Project Manager by the EWA/A Assessment Team. However, the Project Manager informed the team that it would have to submit a list of questions and checklists prior to the review and subsequent interview of personnel at OU #7.

It should also be noted that the EM response to CAR-92-0044 identifies EWA/A as the organization providing independent oversight. Pre-approval of questions and checklists negates the purpose of, and is counterproductive to, independence in that oversight function.

4. No evidence of training to the Environmental Media Management Plan was observed during field activities. In addition, the Environmental Media Management Plan is not identified in the EM document hierarchy chart located in the QAPjP, Section 2.0, Figure 2-2. There is also no mention of this plan or its implementation in the Field SOPs, QAPjP, QAAs, SOPAs, or OU Work Plans.

Supporting References

1. 40 CFR 300, Subpart 415, Removal Action, Paragraph (b), (4), (ii), (B) requires "... a Quality Assurance Project Plan, which describes policy, organization, and functional activities and the data quality objectives and measures necessary to achieve adequate data for use in planning and documenting the removal action." It must be approved by the Colorado Department of Health (CDH) and the Environmental Protection Agency (EPA), prior to commencing work. This plan is to incorporate Quality Assurance Management Staff (QAMS) 005, the EPA interim guidelines and specifications for preparing QAPPs.
2. DOE Order 5700.6C, "If conflicts between this and other Departmental Orders exist, the quality assurance requirements of DOE 5700.6C take precedent."
3. QAPjP Sec. 2.0, 4.0, Training, Qualifications, and Certification
 - a. "Personnel involved in activities affecting quality shall receive appropriate training and orientation from qualified personnel to assure proper understanding of the requirements of this QAPjP and supporting procedures prior to initiation of quality-affecting activities."
 - b. "Completion of training activities shall be documented."
4. 3-21000-ADM-02.01, EMD Administrative Procedures Manual, Section 4, "Responsibilities", Paragraph 3 - "The EMD Quality Assurance Program Manager (QAPM) is responsible for developing and maintaining an EM Department QA Orientation Program that provides an introduction to the policy and philosophy of Department quality-related activities and an overview of the EM Department Quality Assurance Program Description (QAPD) and associated implementing procedures. The QAPM is also responsible for developing and maintaining a Training Plan preparation Guide for formal training, and approving training plans for use. The QAPM interfaces with Division Managers and the EM Training Coordinator, and monitors the effectiveness of QA training."

Recommendations

- i. The training program should be reviewed and revised to ensure it reflects current activities.
- ii. ER management should identify qualification standards for sub-contractor personnel and perform and document training as required by 3-21000-ADM Rev. 11, Sec. 2. RFP Plant Training Requirements

should be incorporated in the qualification standards.
Indoctrination in the ERM Quality Assurance Program (QAPP & QAPjP)
should be included for all sub-contractor personnel.

Finding F-SAA-93-004/04 - Category 3. Field SOPs do not adequately provide for management of waste and environmental media. Guidance and instructions provided in the Field SOPs are contradictory, therefore, compliance is inconsistent.

Discussion

1. The Field SOPs do not address waste. All material is identified as "environmental media". The management of environmental media is, according to the EM Facilities Operation Manager, being conducted under the auspices of the Environmental Media Management Plan, dated July 10, 1992. This plan indicates that all media containers that are below acceptable background levels, as determined by a Radiation Protection Technologist, will remain at the drilling site and be inspected weekly. All containers above that level are to be held in a RCRA 90-Day Accumulation Area. For those drums "suspected" of radioactive contamination, a Waste/Residue Traveler is initiated.
2. A DOE surveillance (93-WM-00S-891-005, January 29, 1993) contained an issue which discussed eight gray drums located in a cargo container in RCRA Storage Unit 18.04. According to this surveillance, field surveys, and a Waste Surveillance report, the drums had Hazardous Materials and Radioactive labels applied to them. The RFP Policy Manual, Section 6.5. Gray Drums, indicates that 55-gallon drums with open tops can be used "... for solids, for nonradioactive, non-RCRA hazardous, non-TSCA regulated and nonhazardous materials." It also states that these same drums can be used for "environmental media". It does not allow for their use for radioactive or hazardous materials.
3. The RFP QAPjP addresses the RFP procedures for disposition of radioactive, mixed, and hazardous materials. It does not identify them by procedure number, nor does it state where they are to be found. The Field SOPs only make reference to the EG&G Hazardous Waste Requirements Manual as a source reference. There is no indication in the text of the Field SOPs that this manual contains the RFP RCRA Procedures.

Supporting References

1. EPA/540/P-87/001, December, 1987, A Compendium Of Superfund Field Operations Methods, Section 3, Waste Storage and Management, 3.2.6.3. - "Wastes generated through investigative activities (e.g., drilling) are governed by RCRA requirements with regard to

personnel in Systems Quality Engineering, EWA/A, and Site Quality Assurance. The individuals in these departments responsible for NCR review had not been contacted by EM in conjunction with the designation of the Standards, Audits, and Assurance (SAA) Coordinator for EM NCRs.

Concern C-SAA-93-004/02. 3-11000-ADM, EMD Administrative Procedures Manual, Section 13.0, Handling, Shipping, and Storage - The Table of Contents lists the procedure, but it does not contain a revision number or an effective date. The Table of Contents is dated March 8, 1993. This procedure has not been developed and represents a break in the hierarchal structure required by RFP plant policies.

Concern C-SAA-93-004/03. Field operations personnel are not adhering to ALARA and other applicable plant policies. These policies are not clearly defined in the Field SOPs.

Discussion

1. Environmental media packed in gray 55-gallon drums, which results in a container characterized as Radioactive, Hazardous, and/or Mixed Waste will need to be repacked in white 55-gallon drums which have been certified for offsite shipment. The gray drums currently being used are not certified, even though they meet the Department of Transportation (DOT) requirements. Painting these containers white, or black and white would be a violation of DOT requirements, which could predictably cause a non-compliant condition by shipping waste in uncertified containers. Every drum that is to be repacked due to non-certified containers could increase the risk to occupational workers, the environment, and the surrounding community.
2. Environmental media containers are sent to Building 664 for Real-Time Radiography (RTR), to be inspected for liquids as a precautionary practice, prior to storing the containers. Since some containers will eventually be submitted for certification for off-site disposal, additional requirements for environmental media containers should also be verified by RTR (i.e., packaging requirements and segregation of PPE from drill cuttings). By not providing for full RTR inspection (a requirement for certification) initially, increased risk and cost of the program will be incurred.

Supporting References

1. DOE-6430.1A/D1, General Requirements, 0110-99.04 - "The arrangement and location of process equipment and its maintenance provisions shall ensure that exposure to radiation and other hazardous materials is within the requirement of DOE 5480.10 and 5480.11. In addition, exposures shall be maintained ALARA."

2. DOE-5480.11 - "As Low As Reasonably Achievable (ALARA): As used in this Order, ALARA is not a dose limit but a process, which has the objective of dose levels as far below applicable limits of the Order as reasonably achievable."
3. Plant Policy 4-5 - "All operations and planning functions at the Rocky Flats Plant will be conducted in a manner to ensure worker and public exposure to radioactivity and nonradioactive toxic materials are maintained at a level as low as reasonably achievable."

Concern C-SAA-93-004/4.

1. During a tour of the cargo containers designated for PPE, a black plastic bag was observed being monitored prior to going to the landfill. When questioned about this bag, ER personnel responded that the contents were laboratory waste, not PPE.
 - The use of black plastic bags for containment of any kind of waste or media is not mentioned, nor provided for, in the Field SOPs.
2. When questioning Regulated Waste Operations personnel about the disposal of this type of waste in the landfill, they responded by saying that they were not aware that this was occurring. The Assessment Team members evaluated the possibility that laboratory waste was being disposed of in the RFP landfill. Results indicated that the waste was "triple rinsed" containers, and is appropriate to be disposed of in the RFP landfill.
 - The Field SOPs do not provide instructions for disposing of lab waste. Field operations personnel have had to seek guidance elsewhere to meet regulatory compliance.

Supporting References

1. EMD Operating Procedures, 5-21000-OPS-F0.06, Sec. 5 -
"The following items are required for handling PPE:
 - Large clear plastic garbage bags (3 mil)
 - Duct Tape
 - Computer generated adhesive labeling for plastic bags."
2. EMD Operating Procedures, 5-21000-OPS-F0.06, Sec. 6.2, Bullet #3 -
"After all PPE items have been removed and placed in the clear plastic bags, the plastic bags can be processed."