

CHEMICAL MANAGEMENT PLAN

FOR

ROCKY MOUNTAIN REMEDIATION SERVICES

APRIL 1996

REVISION 0

Rocky Flats Environmental Technology Site

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1.0 Purpose and Objectives

This plan describes the protocol for the management of chemicals for Rocky Mountain Remediation Services (RMRS). Key objectives for chemical management are: 1) to comply with applicable laws/regulations, Department of Energy (DOE) orders and best management practices, 2) to identify operations, facilities (buildings) and personnel responsible for chemical management, 3) to promote controls on the procurement of chemicals, 4) to monitor the receipt, storage, use and transfer of chemicals, 5) to promote safe chemical storage practices, 6) to comply with hazard communication requirements, 7) to promote excess and reactive chemical management, 8) to establish funding requirements.

2.0 Responsibilities

2.1 Industrial Hygiene Program Team Leader

The Industrial Hygiene Program Team Leader is responsible for developing and verifying implementation of the chemical management plan for RMRS. The RMRS Industrial Hygiene Program Team Leader is Ricky Carr.

2.2 Chemical Control Administrator

The Chemical Control Administrator (CCA) is responsible for the management of chemicals within a Chemical Management Unit (CMU) (see Appendix A for definitions). The CCA serves as the single point-of-contact and is responsible for managing the processes detailed in Section 3.0 of this plan. CCAs and associated CMUs are listed in TABLE 1.

3.0 Chemical Management Processes

The term "chemical" is broadly defined and includes "pure chemicals" as well as many commonly-used products. Generally, chemicals are managed at points in the chemical life cycle where they become subject to safety concerns or regulatory compliance and/or where the control of these chemicals is necessary to achieve "best management" practices.

Some chemicals do not require active management. For example, some personal and janitorial supplies (e.g., hand lotion, air freshener), office supplies (e.g. Liquid Paper) and pharmaceutical drugs (e.g., penicillin) may not require management from the standpoint of procurement, inventory control, and storage requirements. In contrast, chemicals such as laboratory reagents, solvents, mineral acids, drug precursors, carcinogens, ozone depleting chemicals and chemicals listed in state and federal regulations should be considered for some level of management. Also, not all chemicals require the same degree of management. For example, it may be important to track an excess chemical being targeted as waste, but unnecessary to track that same chemical as a product.

The decision to manage or not manage a chemical and the level of management is made by the Industrial Hygiene Manager based on regulatory requirements, health and safety concerns and best management practices. A list of chemicals that either are excluded from management or where management is limited under this plan is given in TABLE 2.

3.1 Requisitioning of a Chemical

Chemicals will be requisitioned either directly from the Approved Chemical Purchase List (ACPL) or via procurement procedures that require separate review and approval of each requisition by the Chemical Review Board (CRB). These procedures will be followed for all RMRS personnel and subcontractors to RMRS.

The following steps will be followed for chemicals purchased from the ACPL.

- The Chemical User (CU) will initiate the purchase of a chemical through a purchase order or system contract request. The CU will define the quality and quantity of chemical to be purchased, prepare the purchase requisition/system contract request and attach a Material Safety Data Sheet (MSDS) for purchases of chemicals not previously used by the facility. The CU will verify that the proposed purchase will not exceed storage limits by reviewing the appropriate Safety Analysis Review (SAR);
- The Chemical Owner (CO) will approve the purchase of the chemical by signing the purchase requisition/system contract request;
- The CCA or designee will verify the existence of a MSDS, confirm SAR compliance and check alternate sources (exchangeable chemicals) on plantsite for the chemical;
- The CCA will approve the purchase (if the chemical is not available elsewhere on plantsite) and forward the requisition to procurement.

For purchases of chemicals not listed on the ACPL, the procedure will be the same except that the CCA will not approve the requisition but rather will forward the requisition to the CRB. If the CRB approves the purchase requisition/system contract request, it will be forwarded to procurement. Otherwise, the purchase requisition/system contract request will be sent back to the CCA indicating the reason for not approving the purchase.

3.2 Inventory Control

The following steps will be followed in inventory control:

- The CCA will develop and maintain a roster of chemical owners and associated chemical storage sites for the assigned CMU;
- The CCA will log chemicals into the facility, attach bar codes and enter information into the Integrated Chemical Management System (ICMS);
- The CCA will update chemical information on the ICMS as the status of the chemical changes (e.g. product → empty or waste);
- The CCA will coordinate the performance of annual chemical inventories.)

3.3 Chemical Safety

Facility-specific storage limits are determined as a result of preparing SARs as required under DOE Order 5480.23. The SAR establishes a risk-based framework for development of facility-specific technical safety requirements (TSR). Within each TSR, chemical storage limits are defined. In cases where TSRs or SARs are not available, storage requirements will be based upon recommendations of RMRS Industrial Hygiene and Safety and K•H Industrial Hygiene, Occupational and Chemical Safety. The CCA will perform annual reviews of chemical inventories to ensure TSR requirements are being met.

3.4 Hazard Communication

The following steps will be followed in managing hazard communications requirements:

The CU will ensure that a current (updated) MSDS is available for each chemical present in his/her work place. The CU will forward updated MSDSs and MSDSs for new chemicals to the CCA;

The CCA will forward MSDSs for new chemicals and updated MSDSs for current chemicals to K-H Industrial Hygiene, Occupational and Chemical Safety for logging into the plantwide central file system;

The CCA will coordinate with the CO to perform annual reviews of MSDS files to evaluate compliance with hazard communication requirements.

3.5 Excess Chemical Management

The CU will conduct an annual inventory of excess chemicals and categorize these chemicals according to their potential for onsite/offsite exchange. The CAA will update the ICMS to reflect the current status of these excess chemicals. For those chemicals that do not qualify for exchange, the CU will follow procedures defined by Rocky Mountain Remediation Services (RMRS) to dispose of the waste chemical.

3.6 Reactive Chemicals

The CU will conduct an annual review of reactive chemicals and inform the CO and CCA of the results. The CCA will contact RMRS Waste Storage and Disposal to receive instructions on the proper handling/disposal of these chemicals.

4.0 Funding

The activities described in this plan will be funded by the work packages that these activities support.

5.0 Implementation

The activities and work processes described in this plan will be implemented according to the schedule in TABLE 3.

APPENDIX A - DEFINITIONS

Approved Chemicals Purchase List (ACPL) - a list of chemicals that are approved for purchase at the Rocky Flats Environmental Technology Site.

Chemical - any element, chemical compound, or mixture of elements and/or compounds.

Chemical Life Cycle - the process of obtaining, using and disposing of chemicals that consists of: 1) procurement, 2) storage, 3) transfer, 4) use, and 5) disposal.

Chemical Management Unit (CMU) - a building or logical grouping of buildings or facilities that are grouped according to such factors as function, location and proximity and contain chemicals that should be managed together. All structures containing chemicals must be grouped in a CMU including cargo containers.

Chemical Owner (CO) - the first line supervisor or manager having funding and personnel authority over a physical area(s) where chemicals are stored.

Chemical Requisition - the placement of an order for a chemical from an outside vendor either through a standard purchase requisition or a systems contract.

Chemical Review Board (CRB) - representatives of K•H Industrial Hygiene, Occupational and Chemical Safety and Rocky Mountain Remediation Services Waste Programs who are responsible for approving chemical purchases and approving chemicals for listing on the ACPL.

Chemical Transfer - the physical transfer of a chemical either within a facility or between facilities.

Chemical User - anyone who, as part of their normal duties, is involved to some degree in the requisitioning, receipt, transfer, storage, use and disposal of chemicals.

Excess Chemical - any chemical that the chemical owner declares to have no useful purpose for the process for which it was originally procured.

Exchangeable Chemical - an excess chemical that can be used in another process or for another purpose from which it was originally acquired.

Facility - a structure or location containing stored chemicals.

Hazardous Chemical - any chemical which is a physical or health hazard.

Industrial Hygiene, Occupational and Chemical Safety (IHOCS) - the organization within Kaiser•Hill Company responsible for integrating chemical management for the Rocky Flats Environmental Technology Site.

Integrated Chemical Management System (ICMS) - a desktop chemical information system used at RFETS to track chemical inventories.

Managed Chemical - any chemical for which controls have been established at some point in the chemical life cycle to achieve safety, regulatory compliance or to promote best management practices.

Reactive Chemical - a chemical which meets one or more of the characteristics listed in the Colorado Hazardous Waste Regulations, 6 CCR-1007-3, Part 261. This includes chemicals which are peroxide forming, potentially shock sensitive, capable of releasing potentially lethal amounts of cyanides or sulfides or which react violently with water or react with water to release toxic gases.

TABLE 1

Chemical Control Administrators and Chemical Management Units

<u>Name</u>	<u>Buildings Assigned</u>	<u>Phone</u>	<u>Pager</u>	<u>Fax</u>	<u>Location</u>
Sylvia Dixon	664	5575	1887	5666	664
Frank Huffman	995	6290	3112	3407	T130B
Jeff Churchill	750 Pad/788 Pad	6071	7506	6172	T893A
Carrie Vogt	904 Pad	3460	5222	6172	T893A
Mike Pepping	891/T900D	3075	7464	6783	T891C
Jeff Shainholtz	440	2615	7936		440
Tim Moore	439	7100	7510	3711	T439D
Barbara Irwin	374	4144	0904	4579	374
Karlan Richards	774	7486	1294	5259	774

TABLE 2

Excluded Chemicals

1. Janitorial supplies
2. Office supplies
3. Radioactive materials
4. Process solutions
5. Wastes
6. Pharmaceutical drugs
7. Individual containers of chemicals (excepting carcinogens) less than 1 pt. or 1 lb. in size/quantity.

TABLE 3

Implementation Schedule

<u>Task</u>	<u>Completion Date</u>
1. Train Chemical Control Administrators	April 15
2. Perform chemical inventories	May 31
3. Audit selected areas	June 30
4. Put essential chemicals on the Approved Chemical Purchase List	May 31
5. Verify/obtain MSDSs for chemicals within CMUs	July 1
6. Develop schedule for identification and disposal of unused chemicals	June 30