



Rocky Mountain Remediation Services, L.L.C.  
... protecting the environment

## Quality Assurance Program Policy Statement

Rocky Mountain Remediation Services, L.L.C. (RMRS) believes that quality is the result of intelligent management planning, action, and improvement. We will strive to meet the needs and expectations of our customers in the most cost-effective and efficient manner possible.

It is each employee's responsibility to meet the requirements for our products and services, achieve our goals and improve our performance.

Management at all levels are given the responsibility to create a working environment that allows for employee participation in identifying quality problems without fear of reprisal and encourage their participation in identifying opportunities for improving our products and work processes.

The RMRS Quality Assurance Manager is hereby given the responsibility and authority to develop, organize and maintain the RMRS Quality Assurance program and procedures that will provide compliance with this policy. The QA manager has the responsibility and full authority to stop work when necessary to meet contractual requirements, or when further processing would render the quality of a product or service indeterminate.

The Vice-presidents and Directors are hereby given the responsibility and authority to implement the RMRS Quality Assurance Program and procedures.

As President of RMRS, I have overall responsibility for the quality of products and services, and to resolve matters which cannot be resolved by the Quality Assurance Manager, the Director Quality Assurance and Environmental Compliance, and the Vice-presidents. Such resolution will not conflict with established requirements.

**A. Clegg Crawford**  
**President**  
**Rocky Mountain Remediation Services, L.L.C.**

4/15/98  
Date

ADMIN RECORD

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## 1. INTRODUCTION

Rocky Mountain Remediation Services, L.L.C. (RMRS), as a subcontractor to Kaiser-Hill Company L.L.C. (K-H), is responsible for the waste management, environmental restoration, decommissioning, facilities management, and related engineering and construction activities at the Rocky Flats Environmental Technology Site (Site). The general scope of work is defined and implemented under the provisions of contract no. KH00003NS1A.

To meet the contractual obligations and assure that the customers of RMRS are receiving products and services that meet their specifications, RMRS has developed this Quality Assurance Program Description (QAPD) that describes requirements, roles, responsibilities, and methodologies for ensuring compliance with DOE Order 5700.6C, Quality Assurance (Order), and 10 CFR 830.120, Quality Assurance (Rule). Since the Order and Rule are inclusive of the same criteria, RMRS incorporates the requirements into a single QAPD. The primary distinction between the two requirements is the enforcement and applicability. Enforcement is defined in 10 CFR 820: Subpart B and F; which indicates the potential remedies afforded DOE up to and including personal criminal prosecution and fines assessed against the company. From the perspective of applicability, 10 CFR 830.120 applies only to activities with the potential to cause radiological harm. Currently, the following hazard category 2 and 3 facilities, managed by RMRS, are considered nuclear facilities and subject to enforcement action under 10 CFR 830.120 (Ref.: K-H QA Program document in Site Quality Assurance Manual):

Building 569	Building 664 (Waste Storage/Shipping)
Building 991	750/904 Pads (Mixed Waste Storage)
Building 440	Building 881
Building 886	Building 906 (Waste Storage)
Building 991	Building 771/774
Building 776/777	Building 779

*NOTE: The list of hazard category 2 and 3 facilities as defined in DOE Order 5480.23, Nuclear Safety Analysis Reports, and the description of the Master Activity List are provided to describe the primary areas to which 10 CFR 830.120 will apply. Applicability of 10 CFR 830.120 is not limited to hazard category 2 and 3 facilities. The Rule is applicable to activities that have the potential for causing radiological harm, without regard to where the radiological risks occur.*

In addition to the 10 CFR 830.120 applicability to RMRS facilities and activities defined above, RMRS activities with the potential to cause radiological harm are subject to enforcement action under 10 CFR 835. The affected activities, enforceable under both 10 CFR 830.120 and 10 CFR 835, include environmental restoration activities, engineering, construction, decontamination and decommissioning activities; and waste operations activities, as defined in the Site Master Activity List (MAL). As more determinations are made with regard to the applicability of 10 CFR 830.120, and as baseline assessments continue, the RMRS QAPD will be modified to reflect the most current decisions concerning applicability in the specific buildings and activities referenced above.

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Decommissioning plans shall be consistent with DOE Orders 5400.5 and 5820.2A, and the *DOE Decommissioning Handbook*. Decommissioning plans shall consider the guidance in NUREG/CR-2082, *Monitoring for Compliance with Decommissioning Termination Survey Criteria*; NUREG/CR-5512, *Residual Radioactive Contamination from Decommissioning: Technical Basis for Translating Contamination Levels to Annual TEDE*; and NUREG/CR-5849, *Guidance Manual for Conducting Radiological Surveys in Support of License Termination*. Decommissioning plans include a description of the checks and balances that are used during execution of work to ensure compliance with work control documentation and acceptance criteria.

## **6.6 Design**

### **6.6.1 Requirements**

#### 10 CFR 830.120 (c)(2)(ii) for Nuclear Facilities/Activities

"Items and processes shall be designed using sound engineering/scientific principles and appropriate standards. Design work, including changes, shall incorporate applicable requirements and design bases. Design interfaces shall be identified and controlled. The adequacy of design products shall be verified or validated by individuals or groups other than those who performed the work. Verification and validation work shall be completed before approval and implementation of the design. "

#### DOE Order 5700.6C, 9.b.(2)(b) for Non-Nuclear Activities

"Items and processes shall be designed using sound engineering/scientific principles and appropriate standards. Design work, including changes, shall incorporate applicable requirements and design bases. Design interfaces shall be identified and controlled. The adequacy of design products shall be

### **6.6.2 Principles**

Sound engineering and scientific principles, and appropriate technical standards shall be incorporated into designs to assure intended performance. The Site infrastructure programs provide controls for the design of items and processes. Design work includes incorporation of applicable requirements and design bases, identification and control of design interfaces, and verification or validation of the adequacy of design products by individuals or groups other than those who performed the work. The verification and validation is completed before approval and implementation of the design.

### **6.6.3 Control of Design Processes**

The design control processes are established for the control of design inputs, outputs, verifications, reviews, changes, modifications, and configuration change control. Design control requirements for procured design and engineering services are incorporated into procurement specifications. The design control program provides documented controls that ensure design interfaces between participating and interacting design organizations. Controls include relative responsibilities, reviews, design basis, deliverables, and associated concurrence and approvals.

Design control of computerized systems shall be commensurate with the risks associated with the process that the computer system controls. Systems controlling critical health and safety processes shall be verified and validated under simulated working conditions, prior to actual usage. Such systems shall be tested periodically to ensure functionality.

Designs related to special processes, in addition to the requirements of this QAPD, receive additional control consideration. Special processes, including welding, heat treating, nondestructive examination, chemical decontamination, etc., must be controlled to a more stringent level, since the resulting quality may not be verifiable without destruction or degradation of the product. Special processes, while controlled by the Site work control process, must be identified by the organization originating the project. Controls shall be developed in accordance with section 6.5. The process, utilizing the approved controls, will be implemented by individuals specifically qualified for the process, in accordance with section 6.2.

## **6.7 Procurement**

### **6.7.1 Requirements**

#### **10 CFR 830.120 (c)(2)(iii) for Nuclear Facilities/Activities**

"Procured items and services shall meet established requirements and perform as specified. Prospective suppliers shall be evaluated and selected on the basis of specified criteria. Processes to ensure that approved suppliers continue to provide acceptable items and services shall be established and implemented. "

#### **DOE Order 5700.6C, 9.b.(2)(c) for Non-Nuclear Activities**

"The organizations shall ensure that procured items and services meet established requirements and perform as specified. Prospective suppliers shall be evaluated and selected on the basis of specified criteria. The organization shall ensure that approved suppliers can continue to provide acceptable items and services. "

### **6.7.2 Principles**

RMRS shall implement the procurement and subcontracts system that was developed by K-H. RMRS, to be consistent with the present procurement system of K-H, employs procurement levels defined in the Site controls for purchased services.

Procurement of items (commodities) is controlled and facilitated through RFCSS.

RMRS personnel requisitioning services are responsible for identifying and defining the requirements and acceptance criteria in procurement documentation.

RMRS employs the use of purchase cards for acquisition of small dollar services and for certain commodities, and are purchased from an approved supplier. Cardholders may purchase items that are listed in 3-PRO-T21-CCP, Purchasing Card Procedure, and 1-W36-APR-111, Acquisition Procedure for Requisitioning Commodities and Services (Acquisition Procedure).

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### 6.7.3 Procurement Documents

Procurement documents, except those related to office supplies (including computers), receive a independent quality review, by RMRS QA, to assure incorporation of appropriate quality assurance requirements, and additional requirements such as 10 CFR 830.120, and health and safety requirements. The RMRS QA organization reviews procurement documents to ensure that the requirements for items and services are clearly depicted, including specific performance requirements.

Procurement documents for items purchased by RFCSS are retained and administered by RFCSS. Procurement documents for services, other than normal maintenance agreements for services and credit card purchases, are retained and administered by RMRS in accordance with approved procedures.

### 6.7.4 Supplier Selection

All Procurement Level 1 (PL-1) procurements will be purchased from suppliers listed in the Site Approved Supplier Listing (ASL), maintained by K-H. On-site evaluation of suppliers for consideration of adding them to the ASL is performed by K-H or RMRS, with input and participation of the requisitioning RMRS organization. RMRS also provides specification input for procurements and develops acceptance criteria to support the dedication process.

Procurement Level 2 (PL-2) suppliers work to the RMRS and Site infrastructure, and accordingly shall be trained and qualified to the extent necessary to effectively comply with Site requirements and controls.

RMRS takes full advantage of third party certifications and other supplier audits through the use of the Supplier Quality Information Group (SQIG).

### 6.7.5 Acceptance of Items and Services

RMRS employs methods for the acceptance of items and services that include observation of selected operations at vendor facilities, post-installation testing, dedication, certificate of conformance, receiving inspection by RFCSS, surveillance or audit, and verification of data. RMRS, in accordance with approved processes and guidance, selects the acceptance criteria based on the procurement levels identified in 6.7. Items and services not meeting performance requirements are identified and controlled in accordance with section 6.3.4.

### 6.7.6 Fraudulent Material

Any incidence of fraudulent material found at the Site is required to be appropriately dispositioned in accordance with the nonconforming item controls. Additionally, these instances are to be reported through the Occurrence Reporting Process, and to the Inspector General.

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### **6.7.7 Identification and Control of Items**

RMRS employs Site control systems for identification, maintenance, and control of items, including consumables. The controls ensure that items are properly labeled, tagged, or marked, and that only appropriate items are used for the application. When physical marking is unachievable, item identification is facilitated through serial number or other traceable means. Site controls ensure that items are identified, handled, stored, transferred, and shipped in a manner that prevents loss, damage, or deterioration.

## **6.8 Inspection and Acceptance Testing**

### **6.8.1 Requirements**

10 CFR 830.120 (c)(2)(iv) for Nuclear Facilities/Activities

"Inspection and testing of specified items, services, and processes shall be conducted using established acceptance and performance criteria. Equipment used for inspections and tests shall be calibrated and maintained. "

DOE Order 5700.6C, 9.b.(2)(d) for Non-Nuclear Activities

"Inspection and acceptance testing of specified items and processes shall be conducted using established acceptance and performance criteria. Equipment used for inspections and tests shall be calibrated and maintained. "

### **6.8.2 Principles**

Items or activities that require inspections and/or acceptance testing will be specified in work-controlling documentation, such as work plans, standard operating procedures, data management plans, etc. Acceptance criteria and any hold points shall be clearly defined.

Measurement and test equipment (M&TE) will be accepted or rejected based on calibration information, including unique identification, traceability, accuracy, resolution, and measurement ranges. Calibrations shall be traceable to consensus standards.

Instruments that are procured or leased with NIST traceable or other recognized standards for ER and D&D projects will not be subject to the Site metrology calibration services. The instrument calibration information will be provided to the metrology laboratory for tracking purposes only. These instruments will be calibrated by the manufacturer's certified representative and at prescribed intervals as applicable to ensure instrument accuracy. M&TE for these instruments will be managed as identified in Appendix 3.

Inspection and acceptance test criteria are defined in procurement documents. Inspections, when performed by RMRS, are designed and controlled in accordance with approved processes.

Source inspection must be coordinated by the requisitioning organization, in concert with the organization that will actually be performing the source inspection.

All source inspections must be performed by personnel qualified in accordance with training and qualification processes. A copy of all source inspection results and reports must be forwarded to RFCSS for record keeping purposes.

Oversight and acceptance of services is the responsibility of the requisitioning organization, and must be performed in accordance with approved Site procedures by qualified personnel. Acquisition Guideline for Requisitioning Items and Services - Standing Order 30 provides instructions for procurement planning.

### 6.8.3 Receiving Inspection

Items received in the warehouse are inspected by RFCSS in accordance with the applicable procurement specifications and approved operating procedures. Methods include, as appropriate, visual inspection, examination of labeling and markings, and procurement document review. Prior to release for use, acceptance status is indicated and forwarded with the item. Items failing receipt inspection are dispositioned in accordance with approved processes, including those governing nonconforming items (Ref.: 6.3).

### 6.8.4 Testing

Testing is conducted by RMRS to verify items and processes perform as planned. Testing is planned and implemented in accordance with approved procedures that include provisions for performing the test, item configuration, environmental conditions, instrumentation requirements, personnel qualifications, acceptance criteria parameters, inspection hold points, and documentation requirements of test data for records purposes.

### 6.8.5 Status Indicators

The status of items is conveyed through various programs and processes and ensure that items are fit for service or have been appropriately controlled to preclude use. The Sitewide Plant Action Tracking System (PATS) and the RMRS corrective action process provides status indicators for programs, while the process for nonconforming products preclude the inadvertent use of hardware that is not acceptable or within prescribed tolerance. The calibration program, administered by RFCSS, ensures that measuring and test equipment are calibrated and that the calibration status is clearly indicated. The respective programs contain provisions for tagging, logging, and other visual displays as may be required.

### 6.8.6 Measuring and Test Equipment

RMRS controls measuring and test equipment used to verify process parameters and verify specification performance during in-process and final inspections. Control is inclusive of calibration, maintenance, and accountability. RMRS subscribes to Site-level approved processes for control of M&TE.

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Measuring and test equipment are calibrated at regular intervals, or when damage is suspected that may result in the M&TE being out of tolerance. The M&TE calibration program, administered and staffed by RFCSS provides calibration of equipment to standards that are traceable to national standards.

M&TE found to be out of tolerance are tagged *out of service* and segregated to preclude use. Evaluations are conducted and documentation is prepared to validate previous inspections, tests, and the acceptability of items for which the out-of-tolerance M&TE was used.

### 6.8.7 Waste Inspection

Radioactive and mixed wastes, generated at the Site are inspected at defined hold-points, using approved procedures. Qualification and technical direction of waste inspectors is provided by the RMRS QA organization. Procedures used incorporate all relevant waste repository and Site requirements, including defined acceptance criteria.

Inspections consist of a review of the waste package documentation for completeness and accuracy, and observation and verification of waste packaging activities to applicable procedures and requirements documents. Nonconformances are documented, tracked and resolved in accordance with approved processes.

Custodians of RMRS RCRA units, in accordance with the Part B Permit, conduct inspections of hazardous wastes.

### 6.9 Management Assessment

#### 6.9.1 Requirements

10 CFR 830.120 (c)(3)(i) for Nuclear Facilities/Activities

"Managers shall assess their management processes. Problems that hinder the organization from achieving its objectives shall be identified and corrected."

DOE Order 5700.6C, 9.b.(3)(a) for Non-Nuclear Activities

"Management at all levels shall periodically assess the integrated quality assurance program and its performance. Problems that hinder the organization from achieving its objectives shall be identified and corrected."

#### 6.9.2 Principles

RMRS shall establish and maintain an assessment program and procedures for planning and implementing assessments. Assessments are broadly construed to be inclusive of audits, surveillance, inspections, reviews, evaluations, appraisals, and process monitoring.