

STANDARDS/REQUIREMENTS IDENTIFICATION DOCUMENT

FUNCTIONAL AREA 10.0

MAINTENANCE (U)

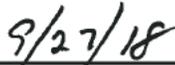
September 27, 2018

REVISION 18-05

This document was approved by DOE-SR on the above date.



Manager, Contractor Assurance



Date

Savannah River Remediation LLC
Savannah River Site
Aiken, SC 29808

TABLE OF CONTENTS

10.00 MAINTENANCE..... 1

10.01 PROGRAM MANAGEMENT 1

10.01.01 POLICIES AND PROCEDURES 2

10.01.02 RESPONSIBILITY, AUTHORITY, AND ACCOUNTABILITY 2

10.02 MAINTENANCE FACILITIES, EQUIPMENT, AND TOOLS..... 2

10.03 TYPES OF MAINTENANCE 2

10.03.01 CORRECTIVE MAINTENANCE..... 2

10.03.02 PREVENTIVE MAINTENANCE 2

10.04 KEY INTERFACES..... 3

10.04.01 CONFIGURATION MANAGEMENT..... 3

10.04.02 ENGINEERING PROGRAM..... 3

10.04.03 OPERATIONS 3

10.04.04 QUALITY ASSURANCE..... 3

10.04.05 FIRE PROTECTION 3

10.04.06 NUCLEAR AND PROCESS SAFETY 3

10.04.07 TRAINING AND QUALIFICATIONS..... 4

10.05 DOCUMENTS 4

10.05.01 REFERENCE DOCUMENTS 4

TABLE 1 FORMAT AND CONTENT 5

10.00 MAINTENANCE

Standards/Requirements Identification Document (S/RID) Functional Area 00, S/RID Purpose and Development, contains general information on the development (including the type of source documents considered), assessment, approval, and maintenance of the Savannah River Remediation LLC (SRR) S/RID which is pertinent to the understanding of this functional area S/RID. The reader should refer to S/RID Functional Area 00 for a complete understanding of this functional area S/RID.

The scope of the Maintenance S/RID Functional Area covers the activities required to monitor and maintain structures, systems, and components (SSCs) to support safe and efficient operations. The Maintenance S/RID Functional Area involves significant interfaces with other functional areas such as Operations, Engineering Program, Configuration Management, Construction Program, Training and Qualifications, Quality Assurance, as well as with the processes for identification of facility material deficiencies.

Requirements identified in the document are based on the regulatory requirements contained in the Contractor Requirements Documents for Department of Energy (DOE) Order 433.1B Admin Chg 1, "Maintenance Management Program for DOE Nuclear Facilities" and DOE O 430.1C, "Real Property Asset Management." These requirements apply to SSCs that are important to safe operation of a property or facility to ensure that they support site missions.

DOE O 433.1B Admin Chg 1 Subsection 1 f of Attachment 2 was omitted from the SRR S/RID because Savannah River Nuclear Solutions, LLC (SRNS) developed a Nuclear Maintenance Management Program Description Document (NMMP-DD) with SRR review/concurrence versus submitting an addendum or page changes to the previously approved Maintenance Implementation Plan.

In accordance with DOE O 430.1C paragraph 3.b, the requirements do not automatically apply to contractors. Any application of real property asset management requirements to contractors must be communicated separately from this Order.

The Contract Administrator Notice response, SRR-CAA-2026-00367, dated October 26, 2016, acknowledged the above and provided an agreement to work with DOE-Savannah River (SR) on a path forward. A meeting held with personnel from DOE-SR, SRNS, and SRR established the retention of the DOE O 430.1B, Change 2 CRD, except for those requirements associated with development of the Ten-Year Site Plan (TYSP). The plan will be accomplished on a five-year basis as annotated by a note in the appropriate requirements.

The applicable requirements associated with DOE O 430.1B, Change 2 were previously included in S/RID Functional Areas 10 (Maintenance), 14 (Environmental Restoration), 15 (Facility Disposition), and a separate non-Environment, Safety, and Health (ES&H) Compliance Assessment and Implementation Report and are now identified as DOE O 430.1C-ESH and DOE O 430.1C-NONESH as appropriate. References made for additional guidance within the Table 1 requirements to DOE O 430.1B (e.g., attachments) still apply.

The Maintenance S/RID Functional Area does not prescribe how to perform specific activities, but identifies requirements for the conduct of maintenance activities.

10.01 PROGRAM MANAGEMENT

This element addresses the unique management and administrative requirements for an effective Maintenance Program.

10.01.01 Policies and Procedures

Requirements are identified within this sub-element for the control of the overall maintenance process and its interfaces with other programs. A NMMP-DD is the Site level document that describes the safety management program for maintenance and the reliable performance of SSCs that are part of the safety basis at Nuclear Hazard Category 1, 2, and 3 DOE facilities. All maintenance of SSCs that are part of the safety basis is conducted in compliance with the approved NMMP.

10.01.02 Responsibility, Authority, and Accountability

The NMMP-DD contains a multi-functional approach of Maintenance, Engineering, Quality, and other Safety Management Programs that identify the SRS programs, procedures, and processes implementing the Maintenance S/RID Functional Area 10. The graded approach strategy for maintenance is focused on the timely and judicious application of maintenance resources in a manner designed to minimize risk while being as efficient as possible. Documented and approved work instructions for work on safety SSCs are developed and implemented. The overall maintenance program is tracked and analyzed to ensure issues are identified, corrective actions developed and implemented, and lessons learned communicated.

10.02 MAINTENANCE FACILITIES, EQUIPMENT, AND TOOLS

This section is directed at requirements related to maintenance facilities, tools, and equipment that efficiently support the maintenance program to ensure the ability to maintain the facility in an optimum state of readiness. Activity level maintenance work is controlled through processes that properly emphasize equipment availability, prevent the use of suspect and counterfeit items, and maintain documented history for continuous program improvement.

10.03 TYPES OF MAINTENANCE

The Maintenance Program provides a high degree of facility and equipment reliability, availability, and efficiency by identification and correction of equipment degradation through a proper blend of corrective and preventive maintenance.

10.03.01 Corrective Maintenance

Corrective maintenance consists of those actions performed to restore failed or malfunctioning equipment or components to service. Refer to sub-element 10.03 for the specification of such requirements.

10.03.02 Preventive Maintenance

Preventive maintenance includes predictive, periodic, and planned maintenance actions taken to maintain equipment within design operating conditions and extend its life. The requirement for periodic inspections to identify problems, such as technical obsolescence, is included under this sub-element. Other requirements relevant to an effective preventive maintenance program are included under sub-element 10.01 "PROGRAM MANAGEMENT."

10.04 KEY INTERFACES

The key interfaces between this functional area S/RID and other S/RID areas are listed below.

10.04.01 Configuration Management

The Maintenance Program has the potential for making configuration changes. The Configuration Management Functional Area provides change controls that ensure changes to configuration are documented and appropriately reviewed. The Configuration Management Functional Area also provides controls to ensure that the latest information is available to the Maintenance Program for incorporation into its procedures. Refer to the Configuration Management S/RID Functional Area 03 for the specification of such requirements.

10.04.02 Engineering Program

The Engineering Program Functional Area provides requirements for defining post-maintenance testing criteria for activities affecting the facility design, providing specifications for materials and services used in maintenance activities that may impact the technical baseline, and ensuring that Maintenance reviews new designs for maintainability. The design organization is responsible for and maintains the record copy of all facility, equipment and device drawings, specifications, calculations, shop drawings, vendor materials, test procedures and "as built" drawings. Refer to the Engineering Program S/RID Functional Area 07 for the specification of such requirements.

10.04.03 Operations

The Operations Functional Area provides requirements for the review of maintenance procedures and for determining when maintenance activities can be completed. Refer to the Conduct of Operations S/RID Functional Area 09 for the specification of such requirements.

10.04.04 Quality Assurance

The Quality Assurance Functional Area provides requirements for the oversight and inspection of the conduct of maintenance. Refer to the Quality Assurance S/RID Functional Area 02 for the specification of such requirements.

10.04.05 Fire Protection

The Fire Protection S/RID Functional Area contains requirements to ensure that maintenance activities do not compromise the safety of the facility or personnel by changing the integrity of the fire protection program. Refer to the Fire Protection S/RID Functional Area 12 for the specification of such requirements.

10.04.06 Nuclear and Process Safety

Requirements are included in this section for Maintenance involving Nuclear and Process Safety. Additionally, the Nuclear and Process Safety Functional Area encompasses all aspect of nuclear criticality and process safety. Nuclear and Process Safety Programs ensure that: identifiable risks (nuclear and non-nuclear) to nuclear facilities are reduced to acceptable low levels; the safety bases for operation are adequately documented; and operations personnel, public and property are protected from the effects of potential accidents. Maintenance activities are appropriately screened to ensure SSCs are maintained and operated within the approved safety basis. Refer to Nuclear and Process Safety S/RID Functional Area 18 for

the specification of such requirements.

10.04.07 Training and Qualifications

Requirements are included in this section for Maintenance Training and Qualifications. Additionally, the Training and Qualifications Functional Area encompasses all aspect of Training and Qualifications requirements to ensure maintenance personnel are trained and qualified to perform maintenance on all SSCs that are part of the safety basis for Hazard Category 1, 2, and 3 nuclear facilities. Refer to the Training and Qualifications S/RID Functional Area 04 for the specification of such requirements.

10.05 DOCUMENTS

10.05.01 Reference Documents

[DOEO430.1C-ESH](#)

[REAL PROPERTY ASSET MANAGEMENT \(ESH\), 8/19/2016](#)

DOEO433.1B-ACHg1

MAINTENANCE MANAGEMENT PROGRAM FOR DOE NUCLEAR FACILITIES, ADMIN CHANGE 1, 4/21/2010

TABLE 1 FORMAT AND CONTENT

S/RID Requirement Number	Unique number for each requirement that links the statement to the ES&H Configuration Guide
Source Document	Number of the source document
Source Document Requirement Number	Unique reference from the source document.
Requirement Text	Requirement statement

Facility Categories *

Requirement applicability is shown in relation to the following facility categories:

Nuclear HC-1,2,3	Representing nuclear hazard category 1, 2 and 3 facilities (as defined by DOE Standard 1027-92) and includes any facility(s) required to support a nuclear facility(s).
Radiological	Representing facilities below Hazard Category 3 but still contain quantities of radioactive material at or above the Reportable Quantity value as specified in 40 CFR 302.4, Appendix B.
High Hazard Chemical	Representing facilities with radiological hazards below 40 CFR 302.4 thresholds for radiological materials, but with any chemical hazard at or above threshold quantities listed in 29 CFR 1910.119 or 40 CFR 68. These facilities may also contain nuclear materials exempt from the nuclear facility definition, e.g., check and calibration sources, radioactive sources in research and experimental and analytical laboratory activities, electron microscopes, and x-ray machines, as defined by 10 CFR 830.3.
Low Hazard Chemical	Representing facilities with radiological hazards below 40 CFR 302.4 thresholds, but with chemical hazards both below 29 CFR 1910.119 or 40 CFR 68 thresholds and at or above reportable quantities in 40 CFR 302.4. These facilities may also contain nuclear materials exempt from the nuclear facility definition, e.g., check and calibration sources, radioactive sources in research and experimental and analytical laboratory activities, electron microscopes, and x-ray machines, as defined by 10 CFR 830.3.
Other Industrial	Representing facilities with all radiological and chemical hazards below 40 CFR 302.4 thresholds. These facilities may also contain nuclear materials exempt from the nuclear facility definition, e.g., check and calibration sources, radioactive sources in research and experimental and analytical laboratory activities, electron microscopes, and x-ray machines, as defined by 10 CFR 830.3.
Facility Specific	These are requirements that are applicable to specific facilities. Facility identification is included in this column, when applicable.

Phase I Compliance Approach

Common	Implementation of these requirements is covered by common procedures and policies.
Facility Specific	Implementation of these requirements is covered by facility specific procedures.

* Refer to the "SRR Facility List" contained in Functional Area 00 for the category for specific SRR facilities/bldgs.

TABLE 1 - S/RID FUNCTIONAL AREA 10 (MAINTENANCE) REQUIREMENTS

S/RID Requirement Number	Source Document	Source Document Reqt Number	Requirement Text	SRR Applicability						Phase I Compliance	
				Nuclear HC-1,2,3	Radi-ological	High Hazard Chemical	Low Hazard Chemical	Other Industrial	Facility Specific	Common	Facility Specific
10.01.01.026	DOEO433.1B-AChg1	Att.2.1.a.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>1. GENERAL REQUIREMENTS.</p> <p>a. Federal and contractor organizations responsible for hazard category 1, 2, or 3 nuclear facilities, as defined by DOE Standard 1027-92 must develop and implement a nuclear maintenance management program (NMMP) through tailored application (e.g., graded approach) of the Specific Requirements in this attachment. The definition of graded approach is provided in Title 10 Code of Federal Regulations (CFR) 830.3. The NMMP must describe the safety management program for maintenance and the reliable performance of structures, systems and components (SSCs) that are part of the safety basis at hazard category 1, 2 and 3 DOE nuclear facilities.</p> <p>Guidance on applying the Specific Requirements, including a graded approach, is provided in DOE G 433.1-1A, Nuclear Facility Maintenance Management Program Guide for Use with DOE O 433.1. The referenced Guide is available on the DOE Directives web site, www.directives.doe.gov.</p>	X						X	
10.01.01.027	DOEO433.1B-AChg1	Att.2.1.b.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>1. GENERAL REQUIREMENTS.</p> <p>b. Federal and contractor organizations must conduct all maintenance of SSCs that are part of the safety basis in compliance with an approved NMMP.</p>	X						X	
10.01.01.028	DOEO433.1B-AChg1	Att.2.1.c.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>1. GENERAL REQUIREMENTS.</p> <p>c. Federal and contractor organizations must ensure that equivalencies and exemptions from the maintenance management program elements of this attachment are identified, formally documented with supporting justification, and approved in accordance with DOE O 251.1C (See Note). Central Technical Authority (CTA) or designee concurrence is required for both exemptions and equivalencies to this Order for nuclear facilities.</p> <p>Note: DOE O 251.1C is superseded by 251.1D and is addressed in FA 01 (Management Systems) Requirements 01.04.155 and 01.04.156.</p>	X						X	

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10.01.01.029	DOEO433.1B-AChg1	Att.2.1.d.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>1. GENERAL REQUIREMENTS.</p> <p>d. Federal and contractor organizations must implement the NMMP through federal or contractor-approved documents, respectively. This is normally accomplished with a manual or a set of implementing procedures.</p>	X						X	
10.01.01.030	DOEO433.1B-AChg1	Att.2.1.e.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>1. GENERAL REQUIREMENTS.</p> <p>e. Federal and contractor organizations must submit NMMP description documentation to DOE/NNSA for review and approval prior to the startup of new hazard category 1, 2, and 3 nuclear facilities and at least every three years for all nuclear facilities. NMMP description documentation must be, at a minimum, an applicability matrix or a combination of multiple documents. The following elements must be covered:</p> <p>(1) Correlation of the Specific Requirements in this attachment to the applicable facilities;</p> <p>(2) Correlation of the implementing documents (i.e., procedures, work instructions, etc.) to the Specific Requirements in this attachment; and</p> <p>(3) Documentation of the basis for applying a graded approach, if applicable.</p>	X						X	
10.01.01.031	DOEO433.1B-AChg1	Att.2.1.g.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>1. GENERAL REQUIREMENTS.</p> <p>g. Federal and contractor organizations must conduct assessments of NMMP implementation, at least every three years or less frequent if directed by the DOE/NNSA SO in accordance with DOE O 226.1B and 10 CFR part 830 subpart A (See Note). DOE G 433.1-1A provides acceptable approaches for conducting NMMP assessments.</p> <p>Note: DOE O 226.1B is included in FA 01 (Management Systems) and 10 CFR 830 is included in FA 01 (Management Systems), FA 02 (Quality Assurance) and FA 18 (Nuclear and Process Safety).</p>	X						X	

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				Nuclear HC-1,2,3	Radi-ological	High Hazard Chemical	Low Hazard Chemical	Other Industrial	Facility Specific	Common	Facility Specific
10.01.01.033	DOEO433.1B-AChg1	Att.2.2.a.(1) (cont.)	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>2. SPECIFIC REQUIREMENTS</p> <p>Notes:</p> <p>1) DOE O 226.1B has been incorporated into FA 01 (Management Systems). 2) DOE O 414.1D has been incorporated into FA 02 (Quality Assurance). 3) DOE O 420.1B is superseded by DOE O 420.1C, 8/19/2016, and the requirements have been incorporated into FA 03 (Configuration Management), FA 07 (Engineering Program), FA 12 (Fire Protection) and FA 18 (Nuclear and Process Safety). 4) DOE O 420.1C is incorporated into this functional area (FA 10), FA 14 (Environmental Restoration) and FA 15 (Facility Disposition). Additionally, portions are addressed in a Non-ES&H CAIR, see Non-ES&H CAIRs on S/RID web page. 5) DOE O 440.1B Chg 1 is not applicable to contractors. See 10 CFR 851 in FA 01 (Management Systems), FA 07 (Engineering Program), FA 12 (Fire Protection) and FA 19 (Occupational Safety and Health) 6) DOE O 422.1 is included in FA 09 (Conduct of Operations) and FA 19 (Occupational Safety & Health). 7) DOE O 426.2 is included in FA 04 (Training and Qualification). 8) DOE O 458.1. Admin Chg 3, is included in FA 15 (Facility Disposition) and FA 20 (Environmental Protection). 9) Compliance with DOE O 450.2, Integrated Safety Management, is not applicable to DOE contractors. However, SRR does implement similar guidance provided by DOE P 450.4A, Integrated Safety Management. DOE P 450.4A is incorporated into FA01.</p>	X						X	

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				Nuclear HC-1,2,3	Radi-ological	High Hazard Chemical	Low Hazard Chemical	Other Industrial	Facility Specific	Common	Facility Specific
10.01.01.034	DOEO433.1B-AChg1	Att.2.2.a.(2)	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>2. SPECIFIC REQUIREMENTS. The NMMP must clearly address the following:</p> <p>a. Integration with Regulations and DOE Orders and Manuals (and their CRDs). The NMMP must be integrated with applicable programs (e.g., Safety Management Programs) and requirements identified by Federal regulations and other DOE Orders and Manuals (and their CRDs) to include.</p> <p>(2) Code of Federal Regulations.</p> <p>(a) 10 CFR part 830, Nuclear Safety Management; Subpart A, Quality Assurance Requirements; (See Note 1)</p> <p>(b) 10 CFR part 830, Nuclear Safety Management; Subpart B, Safety Basis Requirements; (See Note 1)</p> <p>(c) Integrated Safety Management System (ISMS) provisions contained in 48 CFR 970.5223-1, Integration of Environment, Safety, and Health into Work Planning and Execution;</p> <p>(d) 10 CFR part 835, Occupational Radiation Protection; (See Note 2)</p> <p>(e) 10 CFR part 850, Chronic Beryllium Disease Prevention Program; (See Note 3) and</p> <p>(f) 10 CFR part 851, Worker Safety and Health Program. (See Note 4)</p> <p>Notes:</p> <p>1) 10 CFR 830 is included in FA 01 (Management Systems), FA 02 (Quality Assurance) and FA 18 (Nuclear and Process Safety).</p> <p>2) 10 CFR 835 is included in FA 11 (Radiation Protection).</p> <p>3) 10 CFR 850 is included in FA 19 (Occupational Safety and Health).</p> <p>4) 10 CFR 851 is included in FA 01(Management Systems), FA 07 (Engineering Program), FA 12 (Fire Protection), and FA 19 (Occupational Safety and Health).</p>	X						X	
10.01.02.001	DOEO433.1B-AChg1	Att.2.2.f.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>2. SPECIFIC REQUIREMENTS. The NMMP must clearly address the following:</p> <p>f. Maintenance Procedures. The process for developing and implementing documented and approved work instructions for work on safety SSCs (i.e., work packages, procedures, work instructions, and drawings).</p>	X						X	

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				Nuclear HC-1,2,3	Radi-ological	High Hazard Chemical	Low Hazard Chemical	Other Industrial	Facility Specific	Common	Facility Specific
10.01.02.002	DOEO433.1B-AChgl	Att.2.2.o.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>2. SPECIFIC REQUIREMENTS. The NMMP must clearly address the following:</p> <p>o. Performance Measures. The process for developing, maintaining, and communicating performance measures to identify maintenance issues requiring corrective action and lessons learned.</p>	X						X	
10.01.02.003	DOEO433.1B-AChgl	Att.2.2.b.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>2. SPECIFIC REQUIREMENTS. The NMMP must clearly address the following:</p> <p>b. Maintenance Organization and Administration. The management structure that applies sufficient resources (e.g., oversight and independent assessment, management involvement, funding, assignment of personnel roles and responsibilities, facilities, tools, and equipment) necessary to support the requirements described in this attachment and ensures integration with other programs.</p>	X						X	
10.02.021	DOEO433.1B-AChgl	Att.2.2.d.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>2. SPECIFIC REQUIREMENTS. The NMMP must clearly address the following:</p> <p>d. Planning, Scheduling, and Coordination of Maintenance. The process for planning, scheduling, coordination, and control of maintenance activities, and properly emphasizing equipment availability. The process must describe the application of a System Engineer Program in accordance with DOE O 420.1C (See Note) in the planning and execution of maintenance activities.</p> <p>Note: The requirements of DOE O 420.1C have been incorporated into FA 03 (Configuration Management), FA 07 (Engineering Program), FA 12 (Fire Protection) and FA 18 (Nuclear and Process Safety).</p>	X						X	

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10.02.022	DOEO433.1B-AChg1	Att.2.2.i.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>2. SPECIFIC REQUIREMENTS. The NMMP must clearly address the following:</p> <p>i. Procurement. The appropriate integration of the procurement process with the NMMP to ensure the availability of parts, materials and services for maintenance activities.</p>	X						X	
10.02.023	DOEO433.1B-AChg1	Att.2.2.j.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>2. SPECIFIC REQUIREMENTS. The NMMP must clearly address the following:</p> <p>j. Maintenance Tool and Equipment Control. The process for control of maintenance tools including calibration of Measuring and Test Equipment.</p>	X						X	
10.02.024	DOEO433.1B-AChg1	Att.2.2.k.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>2. SPECIFIC REQUIREMENTS. The NMMP must clearly address the following:</p> <p>k. Suspect and Counterfeit Items. The incorporation of the process to prevent the use of suspect and counterfeit items into maintenance procedures and work instructions.</p>	X						X	
10.02.025	DOEO433.1B-AChg1	Att.2.2.l.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>2. SPECIFIC REQUIREMENTS. The NMMP must clearly address the following:</p> <p>l. Maintenance History. The process for developing and maintaining documented and retrievable maintenance history (i.e., cost data, system availability data, and failure data) to support work planning, performance trending, analysis of problems to determine root causes of unplanned occurrences related to maintenance, and continuous program improvement.</p>	X						X	

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10.02.026	DOEO433.1B-AChg1	Att.2.2.p.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>2. SPECIFIC REQUIREMENTS. The NMMP must clearly address the following:</p> <p>p. Facility Condition Inspection. The process for conducting and implementing routine assessment of facilities to identify issues related to operability, reliability, housekeeping, and general condition.</p>	X						X	
10.03.001	DOEO433.1B-AChg1	Att.2.2.e.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>2. SPECIFIC REQUIREMENTS. The NMMP must clearly address the following:</p> <p>e. Types of Maintenance. The process for utilization of appropriate types of maintenance (i.e., preventive maintenance, predictive maintenance, reliability-centered maintenance, surveillance and testing, and corrective maintenance) to provide for safe, efficient, and reliable operation of safety SSCs.</p>	X						X	
10.03.002	DOEO433.1B-AChg1	Att.2.2.n.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>2. SPECIFIC REQUIREMENTS. The NMMP must clearly address the following:</p> <p>n. Seasonal Facility Preservation. The process for ensuring the prevention of damage to safety SSCs from adverse weather conditions.</p>	X						X	
10.03.02.001	DOEO433.1B-AChg1	Att.2.2.m.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>2. SPECIFIC REQUIREMENTS. The NMMP must clearly address the following:</p> <p>m. Aging Degradation and Technical Obsolescence. The process for conducting inspections to evaluate aging-related degradation and technical obsolescence to determine whether the performance of SSCs is threatened.</p>	X						X	

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S/RID Requirement Number	Source Document	Source Document Reqt Number	Requirement Text	SRR Applicability						Phase I Compliance	
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10.04.01.001	DOEO433.1B-AChg1	Att.2.2.h.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>2. SPECIFIC REQUIREMENTS. The NMMP must clearly address the following:</p> <p>h. Configuration Management. The incorporation of the configuration management program to control approved modifications and to prevent unauthorized modifications to safety SSCs.</p>	X						X	
10.04.02.001	DOEO433.1B-AChg1	Att.2.2.c.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>2. SPECIFIC REQUIREMENTS. The NMMP must clearly address the following:</p> <p>c. Master Equipment List. The process for developing, implementing, managing, and maintaining the master equipment list (MEL) at a level that clearly identifies the structures, systems, and components (SSCs) that are part of the safety basis.</p>	X						X	
10.04.02.002	DOEO433.1B-AChg1	Att.2.2.q.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>2. SPECIFIC REQUIREMENTS. The NMMP must clearly address the following:</p> <p>q. Post Maintenance Testing. The process for conducting post maintenance testing to verify that safety SSCs can perform their intended function when returned to service.</p>	X						X	
10.04.06.001	DOEO433.1B-AChg1	Att.2.1.h.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>1. GENERAL REQUIREMENTS.</p> <p>h. Federal and contractor organizations must ensure that NMMPs are identified in the applicable documented safety analysis (DSA) in accordance with 10 CFR 830.204 (See Note).</p> <p>Note: 10 CFR 830.204 is included in FA 18 (Nuclear and Process Safety)</p>	X						X	

TABLE 1 - S/RID FUNCTIONAL AREA 10 (MAINTENANCE) REQUIREMENTS

S/RID Requirement Number	Source Document	Source Document Reqt Number	Requirement Text	SRR Applicability						Phase I Compliance	
				Nuclear HC-1,2,3	Radi-ological	High Hazard Chemical	Low Hazard Chemical	Other Industrial	Facility Specific	Common	Facility Specific
10.04.06.002	DOEO433.1B-AChg1	Att.2.1.i.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>1. GENERAL REQUIREMENTS.</p> <p>i. Federal and contractor organizations must review proposed changes to the NMMP, which could affect the performance of safety SSCs, as part of the ongoing unreviewed safety question (USQ) process. This review is intended to evaluate whether safety SSCs are maintained and operated within the approved safety basis, as required by 10 CFR 830.203 (See Note). Changes which would result in a positive USQ must be submitted to DOE/NNSA for approval prior to the change taking effect.</p> <p>Note: 10 CFR 830.203 is included in FA 18 (Nuclear and Process Safety).</p>	X						X	
10.04.07.001	DOEO433.1B-AChg1	Att.2.2.g.	<p>MAINTENANCE MANAGEMENT PROGRAM REQUIREMENTS FOR DOE NUCLEAR FACILITIES</p> <p>2. SPECIFIC REQUIREMENTS. The NMMP must clearly address the following:</p> <p>g. Training and Qualification. The training and qualification program for maintenance positions specified in DOE O 426.2.</p>	X						X	