

STANDARDS/REQUIREMENTS IDENTIFICATION DOCUMENT

FUNCTIONAL AREA 09.0

CONDUCT OF OPERATIONS (U)

NOVEMBER 5, 2018
REVISION 18-10

Savannah River Remediation LLC
Savannah River Site
Aiken, SC 29808

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09.00 CONDUCT OF OPERATIONS

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 S/RID functional area. The reader should refer to S/RID Functional Area 00 for a complete understanding of this S/RID functional area.

This document addresses the Environment, Safety and Health (ES&H) requirements related to Conduct of Operations activities at the Savannah River Site (SRS) facilities for which SRR is responsible. The Conduct of Operations S/RID Functional Area encompasses all aspects of operating the SRS facilities for which SRR is responsible in a safe, disciplined, cost effective manner, while providing for constant growth in improvement in the operations. This functional area focuses on the requirements necessary to ensure a consistent approach to operations at SRS facilities for which SRR is responsible. The technical details of operations which are dealt with through facility-specific design documentation and operational procedures are outside the scope of this functional area.

The source for the requirements included in this functional area is DOE O 422.1, Conduct of Operations. The Conduct of Operations S/RID Functional Area is prepared in alignment with the July 30, 1993, Revision 0, to the Department of Energy-Headquarters (DOE-HQ) ES&H Configuration Guide, with one qualification. Portions of the ES&H Configuration Guide for this functional area specify inclusion of requirements that were considered by SRR as more appropriate for inclusion in other S/RID functional areas. Rather than repeating requirements in multiple functional areas, reference is made to the S/RID functional areas that contain requirements associated with the Conduct of Operations S/RID Functional Area.

The requirements in this S/RID functional area may be applied to SRS non-nuclear facilities for which SRR is responsible if deemed necessary by the facility manager. Application to SRS non-nuclear facilities is determined by the magnitude of resources expended for operations commensurate with the facility programmatic importance and potential environmental, safety, and/or health impact.

09.01 MANAGEMENT

This section identifies the management and administrative requirements necessary to effectively implement and control operational activities within the constraints of applicable ES&H regulations.

09.01.01 Conduct of Operations

Conduct of Operations is a performance-based approach to operational excellence and is accomplished, in part, by management setting high operating standards and communicating those standards to all personnel. This section specifies those Conduct of Operations requirements related to application of a graded approach and the fundamental requirements for resource assignment, accountability, and safety planning.

09.01.02 Operating Performance

Efficient implementation and control of operating activities are achieved through established written operational standards, periodic monitoring, performance assessments, and personnel accountability. This section includes requirements relating to these areas, as well as requirements for performance-based evaluation of personnel in those areas that have impact on the safety and health of personnel, the public and the environment.

09.01.03 **Dissemination of Operating Documents**

Requirements for the timely transmission of operational control documents and information are included in this section. This includes required reading, orders to operators, and operator aid postings.

09.01.04 **Training**

Specific on shift training requirements for the Conduct of Operations S/RID Functional Area are included in this section. General training and qualification requirements are described in the Training and Qualification and Quality Assurance S/RID Functional Areas, FA 04 and FA 02, with additional specific requirements defined in other interrelated functional areas (e.g., Occupational Safety and Health qualifications and training requirements are identified in the Occupational Safety and Health S/RID Functional Area, FA 19).

09.02 **TECHNICAL BASES FOR OPERATION**

The technical basis for operation of a site or facility is contained in documents that present analysis of the operations, define limits of operations, potential scenarios of accidents and risks to personnel, the general public, and the environment. The requirements applicable to the documentation of the technical basis for operations are more appropriately specified in other S/RID functional areas as described in the following sub-sections.

09.02.01 **Operational Basis Documents**

Requirements for development and documentation of the technical basis of operations such as Technical Safety Requirements (TSRs) and Documented Safety Analysis (DSA) are specified in the Nuclear and Process Safety S/RID Functional Area, FA 18.

09.02.02 **Abnormal Events**

Requirements for the investigation and handling of abnormal events and unusual occurrences are specified in the Management Systems S/RID Functional Area, FA 01. This section focuses on audible communications requirements necessary for transmittal of operating and emergency information within a facility.

09.03 **OPERATIONAL PROCEDURES**

Operational procedures are written to provide specific directions for the Operations Staff to operate systems and equipment during normal, abnormal, and emergency conditions, and provide appropriate directions that ensure the facility and equipment are operated in accordance with their design basis and within the safety envelope. This section includes specific procedure requirements for the Conduct of Operations S/RID Functional Area, while interrelated requirements are referenced to other appropriate S/RID functional areas as described in the following sub-sections.

09.03.01 **Operating Procedures**

Requirements for the development, review, and approval, and use of operating procedures, including facility abnormal and emergency operating procedures, relevant to the Conduct of Operations S/RID Functional Area are included in this section.

09.03.02 **Emergency Procedures**

Requirements for the development of emergency procedures and systems external to the facility are primarily specified in the Emergency Management S/RID Functional Area, FA 05. No requirements are provided in this section of the Conduct of Operations S/RID Functional Area.

09.03.03 **Operational Readiness**

This section includes requirements for control of equipment and system status and requirements for an independent verification program to ensure correct facility operation and the correct position of components. Programmatic Operational Readiness Review requirements are specified in the Management Systems S/RID Functional Area, FA 01.

09.03.04 **Safety Practices**

Operations management and personnel are directly responsible for conduct of activities emphasizing overall safety, including awareness of and compliance with all ES&H requirements. Requirements for mandatory safety practices specific to Conduct of Operations are provided in this section, including requirements for inspection tours, rounds sheets, personal protection, area access control, etc.

Requirements associated with lockout/tagout are split between this functional area and the Occupational Safety and Health S/RID Functional Area, FA 19. Equipment protection requirements are included in this section of the Conduct of Operations functional area; personal protection requirements are included in the Occupational Safety and Health S/RID Functional Area.

09.03.05 **Sensitive System Identification**

Requirements in this section are in relation to the establishment of a program to identify and properly label necessary facility systems or equipment that can be classified as safety class or sensitive system items. Such labels are an operator aid not only during normal operations but eliminate possible mistakes under abnormal conditions.

09.04 **OPERATIONAL RECORDS**

The Conduct of Operations records contain a narrative log of the equipment, process status, and events, as necessary, to provide an accurate history of operations. Requirements included in this section are in relation to the features that must be present in operations logs and log keeping practices to ensure proper record maintenance.

09.05 **KEY INTERFACES**

Due to the unique and central nature of Conduct of Operations, interfaces exist to some extent with most of the other S/RID functional areas. Specific interface areas which have been identified are listed below.

09.05.01 **Management Systems**

An interface to Management Systems, S/RID Functional Area 01, is needed to ensure that a commitment to the health and safety of workers, the public and the environment is incorporated into every aspect of Conduct of Operations at the highest management level. Such requirements are specified in detail in the Management Systems S/RID Functional Area.

09.05.02 Quality Assurance

An interface to the Quality Assurance S/RID Functional Area, FA 02, is needed to ensure that all requirements for Conduct of Operations and all reporting requirements are properly incorporated into operational procedures. These activities are primarily governed by the requirements specified in the Quality Assurance S/RID Functional Area.

09.05.03 Configuration Management

Activities in the Configuration Management S/RID Functional Area, FA03, must interface with the Conduct of Operations S/RID Functional Area to ensure that current operations are not affected by planned modifications, and that new activities receive the proper review in case modified operational schedules are needed. Requirements for these activities are specified in Configuration Management S/RID Functional Area.

09.05.04 Training and Qualifications

Specific on-shift training requirements for the Conduct of Operations S/RID Functional Area are included in Section 09.01.04. However, general training and qualification requirements are described in the Training and Qualification and Quality Assurance S/RID functional areas, FA 04 and FA 02, with additional specific requirements defined in other interrelated S/RID functional areas (e.g., Occupational Safety and Health qualifications and training requirements are identified in the Occupational Safety and Health S/RID Functional Area, FA 19).

09.05.05 Emergency Management

Because of potential emergency situations during the course of operations, and the need for emergency procedures specific to the operations, an interface to Emergency Management is required. Requirements for the development of emergency procedures and systems external to the facility are primarily specified in the Emergency Management S/RID Functional Area, FA 05.

09.05.06 Engineering Program

Engineering Programs must interface with the Conduct of Operations S/RID Functional Area to ensure that requirements for operations are included in the early stages of the design process, and that current operations are not affected by new design efforts. Such requirements are specified in the Engineering Program S/RID Functional Area, FA 07.

09.05.07 Maintenance

An interface with the Maintenance S/RID Functional Area is needed so that maintenance personnel are aware of potential operational hazards and that maintenance operations do not affect operations. This interface is dealt with through the associated requirements specified in the Maintenance S/RID Functional Area, FA 10.

09.05.08 Radiation Protection

An interface to the Radiation Protection S/RID Functional Area is required so that operations are conducted to minimize personnel exposure that personnel are properly trained in radiation protection methods and that appropriate monitoring devices are in place during operations. Refer to the Radiation Protection S/RID Functional Area, FA 11, for the specifications of these requirements.

09.05.09 Research and Development and Experimental Activities

The Research and Development S/RID Functional Area must interface to the Conduct of Operations S/RID Functional Area so that current or proposed experimental activities are planned and conducted within the operational limits set by current requirements. However, there are no unique requirements that apply to research and development beyond those that basically apply to any Operations activity.

09.05.10 Nuclear and Process Safety

Conduct of Operations in any nuclear facility must interface with the Nuclear and Process Safety Functional Area to ensure that the appropriate standards of Nuclear and Process Safety are incorporated into the operating procedures and control documents. Such requirements are specified in the Nuclear and Process Safety S/RID Functional Area, FA 18.

09.05.11 Occupational Safety and Health

To protect the workers from common industrial hazards during operations, an interface to the Occupational Safety and Health S/RID Functional Area, FA 19, is required. Refer to the Occupational Safety and Health S/RID Functional Area for the specifications for these requirements. While limited in scope, Section 09.03.04 of the Conduct of Operations S/RID Functional Area includes a number of specific safety practice requirements.

09.05.12 Environmental Protection

Because of the requirements for limiting release of hazardous and radioactive materials to the environment, the Conduct of Operations S/RID Functional Area should interface with the Environmental Protection S/RID Functional Area, FA 20, to ensure the inclusion of environmental protection requirements in the operating procedures and control documents. Refer to the Environmental Protection S/RID Functional Area for the specification of these requirements.

09.06 DOCUMENTS**09.06.01 Reference Documents**

DOEO422.1-AChg2

CONDUCT OF OPERATIONS, ADMIN CHANGE 2, 12/3/2014

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 Facilities List" contained in Functional Area 00 for the category for specific SRR facilities/bldgs.

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.01.01.011	DOEO422.1-AChg2	Att.1	Regardless of the performer of the work, the contractor is responsible for complying with the requirements of this CRD. The contractor is responsible for flowing down the requirements of this CRD to subcontractors at any tier to the extent necessary to ensure the contractor's compliance with the requirements. Contractors must implement the requirements set forth in Attachment 2, Conduct of Operations Program Requirements, which provides program requirements applicable to contracts in which this CRD is inserted.	X	X					X	
09.01.01.012	DOEO422.1-AChg2	Att.2	PROGRAM REQUIREMENTS This Attachment provides Conduct of Operations program requirements applicable to contracts in which the CRD (Attachment 1 to DOE O 422.1 Admin Change 1) is inserted. This Attachment also provides the program requirements applicable to Government Owned-Government Operated (GO/GO) facilities subject to DOE O 422.1 Admin Change 1 Paragraph 4, Requirements. In Paragraph 2, Specific Requirements, of this Attachment, each paragraph references the related DOE Technical Standard to provide further explanatory material and examples, but not requirements. Each topical area of the specific requirements is expanded into detailed program attributes in Appendix A, Detailed Conduct of Operations Matrix. Throughout this Attachment, the term "operator" means the contractor or federal entity or organization responsible for operation of a facility. Notes: 1) DOE O 422.1 Admin Change 1 Paragraph 4 is found in the order. This section does not contain contractor requirements and is included here for clarity. 2) DOE O 422.1 Admin Change 1 has been superseded by DOE O 422.1 Admin Change 2.	X	X					X	

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09.01.01.015	DOEO422.1-AChg2	Att.2.1.c	<p>GENERAL REQUIREMENTS.</p> <p>An operator with an approved Conduct of Operations Matrix previously submitted in accordance with DOE O 5480.19 must submit either an addendum or page changes to the matrix to reflect the changes made as a result of the implementation of this Attachment. If no changes are needed, a memorandum to that effect may be submitted as the addendum. Changes or requests for time extensions must be submitted to DOE for approval within 90 days from the date this Attachment becomes binding.</p>	X	X					X	
09.01.01.016	DOEO422.1-AChg2	Att.2.1.d	<p>GENERAL REQUIREMENTS.</p> <p>The operator must review, update, and obtain approval of documentation demonstrating conformance at inception, when changes in conditions require changes in the documentation, and at least every three years or as directed by DOE. If after the review, no changes are required to the documentation demonstrating conformance to the requirements, a memorandum to that effect may be submitted. It is not intended that minor administrative changes and corrections or routine updates to cited documents would require DOE approval.</p>	X	X					X	
09.01.01.017	DOEO422.1-AChg2	Att.2.2.d.(1)	<p>SPECIFIC REQUIREMENTS.</p> <p>Communications. (DOE-STD-1031-92 (CH-1), Guide to Good Practices for Communications)</p> <p>The operator must establish and implement operations practices that ensure accurate, unambiguous communications among operations personnel and address the following elements:</p> <p>(1) Provision of communications systems for emergency and normal operations</p> <p>a. All facility personnel are promptly alerted to facility emergencies</p> <p>b. Communications systems are in place to support normal operations</p> <p>c. Alternate methods are provided for areas where public address or emergency signals cannot be heard</p> <p>d. Communications systems are periodically tested</p> <p>e. Control areas can override other communications system users for emergencies</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

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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
09.01.01.018	DOEO422.1-AChg2	Att.2.2.d.(2)	<p>SPECIFIC REQUIREMENTS.</p> <p>Communications. (DOE-STD-1031-92 (CH-1), Guide to Good Practices for Communications)</p> <p>The operator must establish and implement operations practices that ensure accurate, unambiguous communications among operations personnel and address the following elements:</p> <p>(2) Administrative control of communications equipment, including authorization to use the public address system and allowable locations and purposes for radio use</p> <p>a. Public address system use is controlled to maintain its effectiveness and prevent it becoming commonplace</p> <p>b. Point-to-point communications are the preferred method wherever practical</p> <p>c. Radio usage is controlled to prevent electronic interference with facility equipment. Radio-prohibited areas are defined and marked</p> <p>d. Radio frequency or channel assignments are controlled and readily available to users</p> <p>e. Where appropriate, dedicated radio or pager channels are assigned to specific functions such as emergency communications or security</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	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
09.01.01.019	DOEO422.1-AChg2	Att.2.2.d.(3)	<p>SPECIFIC REQUIREMENTS.</p> <p>Communications. (DOE-STD-1031-92 (CH-1), Guide to Good Practices for Communications)</p> <p>The operator must establish and implement operations practices that ensure accurate, unambiguous communications among operations personnel and address the following elements:</p> <p>(3) Methods for control areas to contact operators and supervisors</p> <p>a. Policies define how to notify operators or supervisors to contact the control area</p> <p>b. Emergency and normal notification methods are distinctive</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	
09.01.01.020	DOEO422.1-AChg2	Att.2.2.d.(4)	<p>SPECIFIC REQUIREMENTS.</p> <p>Communications. (DOE-STD-1031-92 (CH-1), Guide to Good Practices for Communications)</p> <p>The operator must establish and implement operations practices that ensure accurate, unambiguous communications among operations personnel and address the following elements:</p> <p>(4) Use of abbreviations and acronyms</p> <p>a. Acronyms and abbreviations are developed and promulgated for oral and written communications</p> <p>b. Only approved abbreviations and acronyms are allowed to be used</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

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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
09.01.01.021	DOEO422.1-AChg2	Att.2.2.d.(5)	<p>SPECIFIC REQUIREMENTS.</p> <p>Communications. (DOE-STD-1031-92 (CH-1), Guide to Good Practices for Communications)</p> <p>The operator must establish and implement operations practices that ensure accurate, unambiguous communications among operations personnel and address the following elements:</p> <p>(5) Use of oral instructions and communications, including use of repeat-backs and sender/receiver identifications</p> <p>a. Policies require clear and concise oral communications</p> <p>b. Policies define when repeat-backs are appropriate and how they are implemented</p> <p>c. Policies define protocols for transmitting information and identifying senders and receivers</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	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
09.01.02.006	DOEO422.1-AChg2	Att.2.2.a.(1)	<p>SPECIFIC REQUIREMENTS.</p> <p>Organization and Administration. (DOE-STD-1032-92 (CH-1), Guide to Good Practices for Operations Organization and Administration</p> <p>The operator must establish policies, programs, and procedures that define an effective operations organization, including the following elements:</p> <p>(1) Organizational roles, responsibilities, authority, and accountability;</p> <p>a. Written policies state goals for operations, safety, and security, the means to achieve them, and the controls instituted for the Conduct of Operations Program</p> <p>b. Policies and procedures implement DOE requirements for operations</p> <p>c. Policies and procedures implement DOE safety requirements</p> <p>d. Policies and procedures implement DOE security requirements</p> <p>e. Personnel and organizations are assigned responsibilities for implementing policies</p> <p>f. Policies clearly define operations personnel authority, accountability, and relationships with other groups, including Stop-Work authority</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	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
09.01.02.007	DOEO422.1-AChg2	Att.2.2.a.(2)	<p>SPECIFIC REQUIREMENTS.</p> <p>Organization and Administration. (DOE-STD-1032-92 (CH-1), Guide to Good Practices for Operations Organization and Administration</p> <p>The operator must establish policies, programs, and procedures that define an effective operations organization, including the following elements:</p> <p>(2) Adequate material and personnel resources to accomplish operations;</p> <p>a. Sufficient qualified operators are available to complete assigned tasks without excessive overtime</p> <p>b. Adequate technical personnel are assigned to support operations</p> <p>c. Staff development, retention, and succession are managed under a long-range staffing plan</p> <p>d. Adequate material, tooling, equipment, safety gear, and facilities are available for safe operations.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	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
09.01.02.008	DOEO422.1-AChg2	Att.2.2.a.(3)	<p>SPECIFIC REQUIREMENTS.</p> <p>Organization and Administration. (DOE-STD-1032-92 (CH-1), Guide to Good Practices for Operations Organization and Administration</p> <p>The operator must establish policies, programs, and procedures that define an effective operations organization, including the following elements:</p> <p>(3) Monitoring and self-assessment of operations (See DOE O 226.1B, Implementation of Department of Energy Oversight Policy, dated 4-25-11) (See Note 1);</p> <p>a. Operating problems are documented and evaluated, and corrective actions are taken</p> <p>b. Supervisors and managers directly observe operations frequently and provide feedback</p> <p>c. Appropriate outside organizations such as Quality Assurance or other oversight organizations observe operations and provide feedback</p> <p>d. Assessment and observation issues are tracked and corrected</p> <p>e. Auditable, measurable, realistic, and challenging safety, environmental, and operations goals are set. Examples are safety system operability; radiological or other exposure; facility operational availability; unscheduled shutdowns; overtime; staffing; qualification, and training; waste production; and plant instrumentation alarms and warnings.</p> <p>f. Facilities develop an action plan to achieve safety, environment, and operations goals with input from operations personnel, and review and approval by management.</p> <p>g. Facilities monitor and report to line and DOE management their progress on completing the action plan and achieving goals. Goals and plans are adjusted and modified as needed.</p> <p>Notes:</p> <p>1) Contractor requirements of DOE O 226.1B are incorporated into FA 01 (Management Systems).</p> <p>2) The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

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09.01.02.009	DOEO422.1-AChg2	Att.2.2.a.(4)	<p>SPECIFIC REQUIREMENTS.</p> <p>Organization and Administration. (DOE-STD-1032-92 (CH-1), Guide to Good Practices for Operations Organization and Administration</p> <p>The operator must establish policies, programs, and procedures that define an effective operations organization, including the following elements:</p> <p>(4) Management and worker accountability for the safe performance of work;</p> <p>a. Management systems are designed to minimize the effects of human performance failures.</p> <p>b. Personnel involved in repeated or willful violations of operating practices are counseled, retrained, or disciplined as appropriate</p> <p>c. Personnel are recognized for notable safety improvement actions or ideas.</p> <p>d. Supervisory performance appraisals and promotions take operational and safety performance into consideration</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	
09.01.02.010	DOEO422.1-AChg2	Att.2.2.a.(5)	<p>SPECIFIC REQUIREMENTS.</p> <p>Organization and Administration. (DOE-STD-1032-92 (CH-1), Guide to Good Practices for Operations Organization and Administration</p> <p>The operator must establish policies, programs, and procedures that define an effective operations organization, including the following elements:</p> <p>(5) Management training, qualification, succession, and, when appropriate, certification;</p> <p>a. Formal supervisory and management training is provided for first-line and shift supervisors</p> <p>b. Development, qualification, retention, and succession for supervisors are managed under a long range staffing plan</p> <p>c. Supervisors achieve certification when required for their duties</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.01.02.011	DOEO422.1-AChg2	Att.2.2.a.(6)	<p>SPECIFIC REQUIREMENTS.</p> <p>Organization and Administration. (DOE-STD-1032-92 (CH-1), Guide to Good Practices for Operations Organization and Administration</p> <p>The operator must establish policies, programs, and procedures that define an effective operations organization, including the following elements:</p> <p>(6) Methods for the analysis of hazards and implementation of hazard controls in the work planning and execution process; and</p> <p>a. The DOE Integrated Safety Management System is used to plan work b. Operations personnel are trained in, and understand, integrating safety into work planning</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	
09.01.02.012	DOEO422.1-AChg2	Att.2.2.a.(7)	<p>SPECIFIC REQUIREMENTS.</p> <p>Organization and Administration. (DOE-STD-1032-92 (CH-1), Guide to Good Practices for Operations Organization and Administration</p> <p>The operator must establish policies, programs, and procedures that define an effective operations organization, including the following elements:</p> <p>(7) Methods for approving, posting, maintaining, and controlling access to electronic operations documents (procedures, drawings, schedules, maintenance actions, etc.) if electronic documents are used.</p> <p>a. Management approves electronic document accessibility on both internal and public computer systems, considering security and privacy concerns b. Procedures define the methods and positions responsible for approving, revising, and posting electronic documents</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.01.02.013	DOEO422.1-AChg2	Att.2.2.b.(1)	<p>SPECIFIC REQUIREMENTS.</p> <p>Shift Routines and Operating Practices. (DOE-STD-1041-93 (CH-1), Guide to Good Practices for Shift Routines and Operating Practices)</p> <p>The operator must establish and implement operations practices to ensure that shift operators are alert, informed of conditions, and operate equipment properly, addressing the following elements:</p> <p>(1) Prompt notification to operating personnel and supervisors of changes in the facility status, abnormalities, or difficulties encountered in performing assigned tasks;</p> <p>a. Supervisors and Operators keep each other informed of facility status changes, abnormalities, or difficulties. b. Operators keep Supervisors informed of unexpected situations</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	
09.01.02.014	DOEO422.1-AChg2	Att.2.2.b.(2)	<p>SPECIFIC REQUIREMENTS.</p> <p>Shift Routines and Operating Practices. (DOE-STD-1041-93 (CH-1), Guide to Good Practices for Shift Routines and Operating Practices)</p> <p>The operator must establish and implement operations practices to ensure that shift operators are alert, informed of conditions, and operate equipment properly, addressing the following elements:</p> <p>(2) Adherence by operating personnel and other workers to established safety requirements;</p> <p>a. Operators comply with safety programs, e.g. industrial, chemical, explosive, pressure, temperature, confined space, or others applicable to the facility. b. Operators use proper personal protective equipment (PPE) c. Operators use ladders or other approved means for overhead access in the absence of permanent ladders or catwalks d. Operators do not routinely climb or walk on components e. Operators use appropriate electrical safety procedures.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.01.02.015	DOEO422.1-AChg2	Att.2.2.b.(3)	<p>SPECIFIC REQUIREMENTS.</p> <p>Shift Routines and Operating Practices. (DOE-STD-1041-93 (CH-1), Guide to Good Practices for Shift Routines and Operating Practices)</p> <p>The operator must establish and implement operations practices to ensure that shift operators are alert, informed of conditions, and operate equipment properly, addressing the following elements:</p> <p>(3) Awareness by operating personnel of the status of equipment through inspection, conducting checks, and tours of equipment and work areas;</p> <p>a. Operators regularly tour their assigned areas on a frequency determined by management, normally early in each shift. Tours are thorough enough to provide detailed equipment status.</p> <p>b. Routine security concerns do not override tour responsibilities.</p> <p>c. Operators inspect equipment status and condition during tours for proper operation, for operability of standby equipment, and any work planned or in progress.</p> <p>d. Operators recognize, document, and report abnormal conditions and take action to correct the conditions. Examples include leaks, fire or safety hazards, clogged drains, cleanliness issues, or building deficiencies.</p> <p>e. Operators periodically check alarm and annunciator functionality.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.01.02.016	DOEO422.1-AChg2	Att.2.2.b.(4)	<p>SPECIFIC REQUIREMENTS.</p> <p>Shift Routines and Operating Practices. (DOE-STD-1041-93 (CH-1), Guide to Good Practices for Shift Routines and Operating Practices)</p> <p>The operator must establish and implement operations practices to ensure that shift operators are alert, informed of conditions, and operate equipment properly, addressing the following elements:</p> <p>(4) Procedures for completing round sheets or inspection logs, responding to abnormal conditions, and periodic supervisory reviews of round sheets or inspection logs;</p> <p>a. Management approves round sheets, including frequency and time of instrument readings and allowable delay (normally one hour or less).</p> <p>b. Round sheets cover the operator's area and equipment parameters; data entry blocks follow the tour route.</p> <p>c. Round sheets provide normal and max/min expected equipment instrumentation readings where appropriate.</p> <p>d. Round sheets provide safety limits where appropriate.</p> <p>e. Data readings outside the normal or max/min range are circled or otherwise highlighted and reported to the supervisor. Operators, and supervisors when appropriate, take corrective action to restore proper functioning.</p> <p>f. Operators make narrative records of important events, abnormal conditions and corrective actions, on round sheets or logbooks</p> <p>g. Data entries on round sheets are made at the specified time. If readings are delayed beyond the allowable range, the actual time and explanation for the delay are recorded.</p> <p>h. Supervisors review round sheets for trends, abnormalities, and proper data and narrative entries during each shift.</p> <p>i. Supervisors periodically monitor operator rounds for proper execution and for any changes needed for changed facility conditions.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.01.02.017	DOEO422.1-AChg2	Att.2.2.b.(5)	<p>SPECIFIC REQUIREMENTS.</p> <p>Shift Routines and Operating Practices. (DOE-STD-1041-93 (CH-1), Guide to Good Practices for Shift Routines and Operating Practices)</p> <p>The operator must establish and implement operations practices to ensure that shift operators are alert, informed of conditions, and operate equipment properly, addressing the following elements:</p> <p>(5) Procedures for protecting operators from personnel hazards, e.g. chemical, radiological, laser, noise, electromagnetic, toxic, or nano-scale materials;</p> <p>a. Operators are appropriately qualified for expected hazards and know protection practices to maintain personnel exposure as low as reasonably achievable and within facility controls for radiation, chemicals, electromagnetic fields, toxic materials, and other personnel hazards.</p> <p>b. Operators comply with all posted personnel protection requirements and precautions</p> <p>c. Operators properly use appropriate monitoring instruments when required</p> <p>d. Operators remain aware of their radiological, toxic, or other exposures and take action to minimize them.</p> <p>e. Operators properly use appropriate administrative controls such as work permits, radiological work permits, and confined space permits.</p> <p>f. Operators promptly report and take corrective action for radiological or hazardous material protection deficiencies.</p> <p>g. Operators and Supervisors notify protection personnel prior to activities that affect the protection status. (Industrial Hygiene, Radiological, etc.)</p> <p>h. Supervisors periodically review exposure trends of operators to detect and correct adverse factors that contribute to personnel exposures.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.01.02.018	DOEO422.1-AChg2	Att.2.2.b.(6)	<p>SPECIFIC REQUIREMENTS.</p> <p>Shift Routines and Operating Practices. (DOE-STD-1041-93 (CH-1), Guide to Good Practices for Shift Routines and Operating Practices)</p> <p>The operator must establish and implement operations practices to ensure that shift operators are alert, informed of conditions, and operate equipment properly, addressing the following elements:</p> <p>(6) Prompt response to instrument indications, including the use of multiple indications to obtain parameters;</p> <p>a. Operators believe their indications unless proven otherwise. b. Operators check other indicators when possible to confirm unexpected readings c. Operators take prompt action to investigate and correct abnormal conditions d. Operators identify inaccurate or malfunctioning instruments and inform appropriate supervisors and repair organizations. e. In case of doubtful readings, operators place safety above production.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.01.02.019	DOEO422.1-AChg2	Att.2.2.b.(7)	<p>SPECIFIC REQUIREMENTS.</p> <p>Shift Routines and Operating Practices. (DOE-STD-1041-93 (CH-1), Guide to Good Practices for Shift Routines and Operating Practices)</p> <p>The operator must establish and implement operations practices to ensure that shift operators are alert, informed of conditions, and operate equipment properly, addressing the following elements:</p> <p>(7) Procedures for resetting protective devices;</p> <p>a. Operators attempt to determine the cause of protective device trips (Breakers, fuses, relief valves, safety systems, etc.)</p> <p>b. Supervisors and management provide guidance on addressing protective device trips; normally, devices are reset only after assuring that no abnormal condition exists that would cause a trip.</p> <p>c. Management investigates protective system trips and unplanned shutdowns.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.01.02.020	DOEO422.1-AChg2	Att.2.2.b.(8)	<p>SPECIFIC REQUIREMENTS.</p> <p>Shift Routines and Operating Practices. (DOE-STD-1041-93 (CH-1), Guide to Good Practices for Shift Routines and Operating Practices)</p> <p>The operator must establish and implement operations practices to ensure that shift operators are alert, informed of conditions, and operate equipment properly, addressing the following elements:</p> <p>(8) Authorization to operate facility equipment;</p> <p>a. Designated supervisors direct the overall operation of the facility, including load changes.</p> <p>b. Personnel operating equipment have appropriate qualification and certification.</p> <p>c. Operators and Supervisors are aware of all activities affecting equipment.</p> <p>d. Management designates routine operations that do not require permission for performance.</p> <p>e. Supervisors approve non-routine operation of facility or process controls.</p> <p>f. During emergencies, Operators may take immediate actions for worker, public, and environmental protection without permission, and inform supervisors promptly.</p> <p>g. Operators achieve plant safety over production for normal, emergency and abnormal operations.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.01.02.021	DOEO422.1-AChg2	Att.2.2.b.(9)	<p>SPECIFIC REQUIREMENTS.</p> <p>Shift Routines and Operating Practices. (DOE-STD-1041-93 (CH-1), Guide to Good Practices for Shift Routines and Operating Practices)</p> <p>The operator must establish and implement operations practices to ensure that shift operators are alert, informed of conditions, and operate equipment properly, addressing the following elements:</p> <p>(9) Designating shift operating bases and providing equipment for them; and</p> <p>a. Shift operating bases, the normal location for operator(s) when not otherwise performing evolutions, are established for all feasible shift positions.</p> <p>b. Shift operating bases are equipped with communications, references, and office materials and equipment needed for facility operations, and are conveniently located within the operating area.</p> <p>c. Shift turnovers normally occur at the operating base and operators return there when not performing operations at equipment locations or touring.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.01.02.022	DOEO422.1-AChg2	Att.2.2.b.(10)	<p>SPECIFIC REQUIREMENTS.</p> <p>Shift Routines and Operating Practices. (DOE-STD-1041-93 (CH-1), Guide to Good Practices for Shift Routines and Operating Practices)</p> <p>The operator must establish and implement operations practices to ensure that shift operators are alert, informed of conditions, and operate equipment properly, addressing the following elements:</p> <p>(10) Professional and disciplined operator performance of duties.</p> <p>a. Potential distractions such as electronic devices (radio, TV, music players, games), personal telephone calls, game playing, and horseplay are prohibited</p> <p>b. Non-work-related written materials are prohibited. Operators may read training bulletins, technical manuals, or operating experience information or review other written, audible, or visual materials that relate to operator duties.</p> <p>c. Supervisors ensure operators' primary duties are not compromised and provide guidance on potentially distracting materials and devices</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.01.02.023	DOEO422.1-AChg2	Att.2.2.c.(1)	<p>SPECIFIC REQUIREMENTS.</p> <p>Control Area Activities. (DOE-STD-1042-93 (CH-1), Guide to Good Practices for Control Area Activities)</p> <p>The operator must establish and implement operations practices that promote orderly, business-like control area operations and address the following elements:</p> <p>(1) Control-area access;</p> <p>a. Control Areas and at-the-controls areas are clearly identified and boundaries are understood</p> <p>b. Control area access is limited to persons on official business only. Access to the at-the-controls area is further limited to persons who need to be in the area.</p> <p>c. Entry to control and at-the-controls areas is granted by designated persons whose identity is known to persons desiring entry.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	
09.01.02.024	DOEO422.1-AChg2	Att.2.2.c.(2)	<p>SPECIFIC REQUIREMENTS.</p> <p>Control Area Activities. (DOE-STD-1042-93 (CH-1), Guide to Good Practices for Control Area Activities)</p> <p>The operator must establish and implement operations practices that promote orderly, business-like control area operations and address the following elements:</p> <p>(2) Formality and discipline in the control and at-the-controls area;</p> <p>a. All persons in the area display professional and disciplined behavior. Only activities essential to operations and authorized by management are permitted in the area.</p> <p>b. Potential distractions such as electronic devices (radio, TV, music players, games), personal telephone calls, game playing, and horseplay are prohibited</p> <p>c. Non-work-related discussions are minimized.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.01.02.025	DOEO422.1-AChg2	Att.2.2.c.(3)	<p>SPECIFIC REQUIREMENTS.</p> <p>Control Area Activities. (DOE-STD-1042-93 (CH-1), Guide to Good Practices for Control Area Activities)</p> <p>The operator must establish and implement operations practices that promote orderly, business-like control area operations and address the following elements:</p> <p>(3) Surveillance of control panels and timely response to determine and correct the cause of abnormalities/out-of specification conditions;</p> <p>a. Operators are alert and attentive to control panel indicators and alarms and monitor panels frequently.</p> <p>b. Operators closely monitor indications and conditions and trend them to detect problems early.</p> <p>c. Operators take timely alarm response actions to address and correct alarming conditions.</p> <p>d. Concurrent operations that affect control panel indications are limited so that operators' ability to detect and respond to abnormal conditions is not compromised.</p> <p>e. Operators are ready to take backup control of automated or computer systems.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.01.02.026	DOEO422.1-AChg2	Att.2.2.c.(4)	<p>SPECIFIC REQUIREMENTS.</p> <p>Control Area Activities. (DOE-STD-1042-93 (CH-1), Guide to Good Practices for Control Area Activities)</p> <p>The operator must establish and implement operations practices that promote orderly, business-like control area operations and address the following elements:</p> <p>(4) Limitation of the number of concurrent evolutions and duties</p> <p>a. Operator ancillary duties are limited to prevent interference with monitoring control panel indicators and alarms.</p> <p>b. Tasks such as tag outs, work authorizations, procedure review, maintenance, or required reading do not constitute a major portion of operators' shift responsibilities.</p> <p>c. Control panel operator administrative workload is minimized. Other operators continue monitoring when one operator has necessary administrative work.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	
09.01.02.027	DOEO422.1-AChg2	Att.2.2.c.(5)	<p>SPECIFIC REQUIREMENTS.</p> <p>Control Area Activities. (DOE-STD-1042-93 (CH-1), Guide to Good Practices for Control Area Activities)</p> <p>The operator must establish and implement operations practices that promote orderly, business-like control area operations and address the following elements:</p> <p>(5) Authorization to operate control area equipment</p> <p>a. Operation of control area equipment is performed only by persons specifically authorized in writing.</p> <p>b. Trainees operating control area equipment do so only under the direct supervision of the normally assigned operator.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

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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
09.01.03.016	DOEO422.1-AChg2	Att.2.2.n	<p>SPECIFIC REQUIREMENTS.</p> <p>Required Reading. (DOE-STD-1033-92 (CH-1), Guide to Good Practices for Operations and Administration Updates Through Required Reading)</p> <p>The operator must establish and implement operations practices for an effective required reading program to keep operators updated on equipment or document changes, lessons learned, or other important information, addressing the following elements:</p> <p>(1) Identification of material to be distributed via required reading,</p> <p>a. Directives contain provisions for a required reading program, including, as appropriate, procedure changes, equipment design changes, operating experience information, and other facility-specific items.</p> <p>b. Directives for the required reading program include provisions for listing designated items, screening them for appropriate content, and procuring copies of the documents.</p> <p>(2) Identification of which personnel are required to read specific required reading items, and</p> <p>a. Directives for the required reading program include provisions for designating specific items for specific operators or groups of operators.</p> <p>b. Directives for required reading program include provisions for ready access to required reading materials</p> <p>(3) Distribution of required reading to appropriate personnel and documentation of their timely completion.</p> <p>a. Directives for the required reading program include provisions for assigning due dates for items, including, where appropriate, completion before operators go on shift again.</p> <p>b. Directives for the required reading program include provisions for documenting and tracking completion of designated specific items for specific operators or groups of operators.</p> <p>c. Directives for required reading program include provisions for retaining documentation of completion and for periodic management review for timely assignment completion.</p> <p>d. Directives for the required reading program include provisions for removing completed items from distribution.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

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09.01.03.017	DOEO422.1-AChg2	Att.2.2.o.(1)	<p>SPECIFIC REQUIREMENTS.</p> <p>Timely Instructions/Orders. (DOE-STD-1034-93 (CH-1), Guide to Good Practices for Timely Orders to Operators)</p> <p>The operator must establish and implement operations practices for timely written direction and guidance from management to operators, addressing the following elements:</p> <p>(1) Appropriate circumstances for the use of timely instructions/orders;</p> <p>a. Directives for timely instructions/orders specify appropriate information items such as special operations, administrative directions, special data collection campaigns, or notification of expected visitors.</p> <p>b. Directives for timely instructions/orders specify appropriate orders such as direction to perform special evolutions or tests, limitations on performing certain operations, direction to perform maintenance actions, or other direction.</p> <p>c. Directives for timely instructions/orders include provisions to prevent the use of timely instructions/orders as a substitute for administrative or operational procedure revisions.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	
09.01.03.018	DOEO422.1-AChg2	Att.2.2.o.(2)	<p>SPECIFIC REQUIREMENTS.</p> <p>Timely Instructions/Orders. (DOE-STD-1034-93 (CH-1), Guide to Good Practices for Timely Orders to Operators)</p> <p>The operator must establish and implement operations practices for timely written direction and guidance from management to operators, addressing the following elements:</p> <p>(2) Designated levels of review and approval prior to issuance;</p> <p>a. Directives for timely instructions/orders include designation of review and approval authorities.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

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09.01.03.019	DOEO422.1-AChg2	Att.2.2.o.(3)	<p>SPECIFIC REQUIREMENTS.</p> <p>Timely Instructions/Orders. (DOE-STD-1034-93 (CH-1), Guide to Good Practices for Timely Orders to Operators)</p> <p>The operator must establish and implement operations practices for timely written direction and guidance from management to operators, addressing the following elements:</p> <p>(3) Configuration control of timely instructions/orders;</p> <p>a. Directives for timely instructions/orders include segregation of timely instructions/orders into daily and long term categories</p> <p>b. Directives for timely instructions/orders include provisions for removing or canceling superseded or outdated items</p> <p>c. Directives for timely instructions/orders include provisions for periodic management reviews that only appropriate and current items are distributed, and that appropriate personnel review them within time limits.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	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
09.01.03.020	DOEO422.1-AChg2	Att.2.2.o.(4)	<p>SPECIFIC REQUIREMENTS.</p> <p>Timely Instructions/Orders. (DOE-STD-1034-93 (CH-1), Guide to Good Practices for Timely Orders to Operators)</p> <p>The operator must establish and implement operations practices for timely written direction and guidance from management to operators, addressing the following elements:</p> <p>(4) Distribution of timely instructions/orders to appropriate personnel and documentation of their receipt and understanding</p> <p>a. Directives for timely instructions/orders include provisions for distribution of timely instructions/orders to appropriate operators. b. Directives for timely instructions/orders include provisions for appropriate operators to review items before or early in shift. c. Directives for timely instructions/orders include provisions for documenting operator reviews every shift for daily items, including those that are delayed or remain in force longer than a day, and periodic and as-changed reviews of long term items</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

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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
09.01.04.009	DOEO422.1-AChg2	Att.2.2.e.(1)	<p>SPECIFIC REQUIREMENTS.</p> <p>On-shift Training. (DOE-STD-1040-93 (CH-1), Guide to Good Practices for Control of On-Shift Training)</p> <p>The operator must establish and implement operations practices that control on shift training of facility operators, prevent inadvertent or incorrect trainee manipulation of equipment, and address the following elements:</p> <p>(1) On-shift training program</p> <p>a. The Operations Manager approves the operator qualification program and coordinates changes with the Training Department.</p> <p>b. For positions requiring operator certification, candidates receive one-on-one instruction on station.</p> <p>c. On-shift training is conducted by persons both qualified to operate equipment and authorized to train others. Authorization to train others may require special instructor qualifications</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	
09.01.04.010	DOEO422.1-AChg2	Att.2.2.e.(2)	<p>SPECIFIC REQUIREMENTS.</p> <p>On-shift Training. (DOE-STD-1040-93 (CH-1), Guide to Good Practices for Control of On-Shift Training)</p> <p>The operator must establish and implement operations practices that control on shift training of facility operators, prevent inadvertent or incorrect trainee manipulation of equipment, and address the following elements:</p> <p>(2) Authorization and documentation of training activities</p> <p>a. Training activities during operations are specifically identified in the training program, including knowledge requirements and trainee actions such as perform, simulate, etc.</p> <p>b. Qualification program completion is formally documented; on-shift and classroom training activities are documented as they occur</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.01.04.011	DOEO422.1-AChg2	Att.2.2.e.(3)	<p>SPECIFIC REQUIREMENTS.</p> <p>On-shift Training. (DOE-STD-1040-93 (CH-1), Guide to Good Practices for Control of On-Shift Training)</p> <p>The operator must establish and implement operations practices that control on shift training of facility operators, prevent inadvertent or incorrect trainee manipulation of equipment, and address the following elements:</p> <p>(3) Supervision and control of personnel under instruction by qualified personnel.</p> <p>a. Qualified operator-instructors supervise trainees to prevent misoperation of equipment</p> <p>b. Early-stage trainees discuss operations, procedures, and actions before performing actual operations. More proficient trainees point and describe actions before taking them. Operator-instructors always monitor trainees and remain capable of intervention.</p> <p>c. Operator-instructors verify trainee entries on official round sheets and logs, and discuss any out of specification readings or unfavorable trends</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.01.04.012	DOEO422.1-AChg2	Att.2.2.e.(4)	<p>SPECIFIC REQUIREMENTS.</p> <p>On-shift Training. (DOE-STD-1040-93 (CH-1), Guide to Good Practices for Control of On-Shift Training)</p> <p>The operator must establish and implement operations practices that control on shift training of facility operators, prevent inadvertent or incorrect trainee manipulation of equipment, and address the following elements:</p> <p>(4) Facility conditions and controls for conducting training during operational activities, including suspension of training during unanticipated or abnormal events.</p> <p>a. Training activities are conducted only when facility conditions permit, and as authorized by facility management</p> <p>b. Training activities and trainee operation of equipment is suspended immediately during emergency or unanticipated abnormal conditions, or when deemed appropriate for safety or operational conditions.</p> <p>c. Management establishes the maximum number of trainees allowed during operations and the maximum number of trainees per operator-instructor</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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	
09.02.02.007	DOEO422.1-AChg2	Att.2.2.f.(1)	<p>SPECIFIC REQUIREMENTS.</p> <p>Investigation of Abnormal Events, Conditions, and Trends. (DOE-STD-1045-93 (CH-1), Guide to Good Practices for Notifications and Investigation of Abnormal Events)</p> <p>The operator must establish and implement operations practices for investigating events to determine their impact and prevent recurrence, addressing the following elements:</p> <p>(1) Specific events requiring investigation, and criteria for identifying other events or conditions to be investigated</p> <p>a. Violation of a safety documentation design limit (e.g., design feature or safety limit).</p> <p>b. Abnormal or unexpected system performance that adversely affects operations or safety (e.g. improper instrument readings, automatic control failure, chemical analysis, etc.)</p> <p>c. Abnormal or unexpected safety conditions (e.g. stray voltage, safety feature or interlock malfunction, etc.)</p> <p>d. Discovery of mispositioned valves, switches, or components.</p> <p>e. Events reportable to DOE or other agencies (e.g. EPA, DOT, State regulators, etc.)</p> <p>f. Unplanned shutdown or significant loss of operation</p> <p>g. Procedural violation or personnel error with actual or potential personnel injury, facility damage, or facility safety degradation</p> <p>h. Equipment failure that could affect safety or mission.</p> <p>i. Radiological or toxic material release limits are exceeded or material is lost.</p> <p>j. Recorded data is out-of specification or shows unexpected trends, with actual or potential adverse impact on operations or safety</p> <p>k. Actual or suspected sabotage</p> <p>l. Lost special nuclear material</p> <p>m. Repetitive problems</p> <p>n. Measuring and test equipment is found to be out of calibration, with actual or potential impact on operations or safety</p> <p>o. As directed by appropriate authority, particularly for near-miss situations</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X						X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.02.02.008	DOEO422.1-AChg2	Att.2.2.f.(2)	<p>SPECIFIC REQUIREMENTS.</p> <p>Investigation of Abnormal Events, Conditions, and Trends. (DOE-STD-1045-93 (CH-1), Guide to Good Practices for Notifications and Investigation of Abnormal Events)</p> <p>The operator must establish and implement operations practices for investigating events to determine their impact and prevent recurrence, addressing the following elements:</p> <p>(2) Designation of investigators and their training and qualification</p> <p>a. A senior manager is responsible for investigations; they may delegate investigations or portions of investigations to others, but retain overall responsibility for rigor and consistency of investigations</p> <p>b. Investigators are experienced and technically qualified</p> <p>c. Investigators have no bias or vested interest in the results of the investigation</p> <p>d. Investigators are trained in facility systems, operations, and investigation techniques</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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	
09.02.02.009	DOEO422.1-AChg2	Att.2.2.f.(3)	<p>SPECIFIC REQUIREMENTS.</p> <p>Investigation of Abnormal Events, Conditions, and Trends. (DOE-STD-1045-93 (CH-1), Guide to Good Practices for Notifications and Investigation of Abnormal Events)</p> <p>The operator must establish and implement operations practices for investigating events to determine their impact and prevent recurrence, addressing the following elements:</p> <p>(3) Investigation process and techniques</p> <p>a. Timely data collection by a designated person: initial conditions, operator statements, pertinent computer/instrument printouts or charts, pertinent documentation and records, and other appropriate information</p> <p>b. Records and data are annotated to prevent misinterpretation</p> <p>c. Investigation data is permanently recorded for future reference</p> <p>d. Data collection does not interfere with facility operation unless vital to understanding the event</p> <p>e. The facts of the event are reconstructed chronologically from the data</p> <p>f. The event is analyzed to determine equipment and personnel response, procedure and equipment adequacy, human performance factors, and safety impact</p> <p>g. Management determines the appropriate restart process (if applicable)</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X						X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.02.02.010	DOEO422.1-AChg2	Att.2.2.f.(4)	<p>SPECIFIC REQUIREMENTS.</p> <p>Investigation of Abnormal Events, Conditions, and Trends. (DOE-STD-1045-93 (CH-1), Guide to Good Practices for Notifications and Investigation of Abnormal Events)</p> <p>The operator must establish and implement operations practices for investigating events to determine their impact and prevent recurrence, addressing the following elements:</p> <p>(4) Causal analysis and corrective action determination</p> <p>a. The causes are determined</p> <p>b. Appropriate corrective actions to prevent recurrence of the event are determined</p> <p>c. Corrective actions are approved by the responsible manager and tracked to completion</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.02.02.011	DOEO422.1-AChg2	Att.2.2.f.(5)	<p>SPECIFIC REQUIREMENTS.</p> <p>Investigation of Abnormal Events, Conditions, and Trends. (DOE-STD-1045-93 (CH-1), Guide to Good Practices for Notifications and Investigation of Abnormal Events)</p> <p>The operator must establish and implement operations practices for investigating events to determine their impact and prevent recurrence, addressing the following elements:</p> <p>(5) Event investigation reporting, training, and trending, and</p> <p>a. Investigation reports are timely</p> <p>b. Investigation Reports contain a description of the event, its impact, root cause, lessons, and corrective actions</p> <p>c. Investigation Reports note any positive aspects of the event</p> <p>d. Investigation Reports are approved by the responsible manager and reviewed by appropriate managers and safety personnel</p> <p>e. Investigation Report lessons are shared with appropriate operators, support staff, other facility organizations, and other facilities</p> <p>f. Events are evaluated for inclusion in training programs.</p> <p>g. Processes include a method to train operators on serious events upon their return to work</p> <p>h. Procedure problems, operator errors, and other appropriate events are part of the facility trend analysis program. Periodic summaries of event analysis and trends are provided to managers. Training programs include appropriate material from event reports and trend analysis.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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	
09.02.02.012	DOEO422.1-AChg2	Att.2.2.f.(6)	<p>SPECIFIC REQUIREMENTS.</p> <p>Investigation of Abnormal Events, Conditions, and Trends. (DOE-STD-1045-93 (CH-1), Guide to Good Practices for Notifications and Investigation of Abnormal Events)</p> <p>The operator must establish and implement operations practices for investigating events to determine their impact and prevent recurrence, addressing the following elements:</p> <p>(6) Response to known or suspected sabotage</p> <p>a. Actual or suspected sabotage is immediately investigated</p> <p>b. The condition of potentially affected systems is determined, and safety system operability is confirmed</p> <p>c. Management determines whether continued operation is justified and if safe shutdown is viable or advisable</p> <p>d. Management takes action to minimize the impact of sabotage and deter future acts.</p> <p>Operators should integrate related requirements in DOE O 232.2, Occurrence Reporting and Processing of Operations Information, dated 8-30-11 and DOE O 225.1B, Accident Investigations, dated 3-4-11. (See Note 1)</p> <p>Notes:</p> <p>1) Contractor requirements of DOE O 232.2 and DOE O 225.1B are incorporated into FA 01 (Management Systems).</p> <p>2) The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p> <p>3) DOE O 232.2 has been superseded by DOE O 232.2A.</p>	X	X						X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.02.02.013	DOEO422.1-AChg2	Att.2.2.g.(1)	<p>SPECIFIC REQUIREMENTS.</p> <p>Notifications. (DOE-STD-1045-93 (CH-1), Guide to Good Practices for Notifications and Investigation of Abnormal Events)</p> <p>The operator must establish and implement operations practices to ensure appropriate event notification for timely response, addressing the following elements:</p> <p>(1) Procedures for internal, DOE, and external notifications, including events, persons to be notified, persons responsible to make notifications, contact information, and recordkeeping and</p> <p>a. Responsibilities for making notifications are specifically assigned to positions or persons</p> <p>b. Events requiring notification are identified and documented</p> <p>c. Notification timeliness standards are established</p> <p>d. Primary and alternate personnel to be notified for each event are identified and documented</p> <p>e. Contact information for the personnel to be notified is kept current and available to notifying personnel.</p> <p>f. All notifications are documented in formal records that include date, time, reason, person notified, and person making notification.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.02.02.014	DOEO422.1-AChg2	Att.2.2.g.(2)	<p>SPECIFIC REQUIREMENTS.</p> <p>Notifications. (DOE-STD-1045-93 (CH-1), Guide to Good Practices for Notifications and Investigation of Abnormal Events)</p> <p>The operator must establish and implement operations practices to ensure appropriate event notification for timely response, addressing the following elements:</p> <p>(2) Communications equipment for notifications.</p> <p>a. Adequate equipment for making notifications is available at the main control area and/or other appropriate location</p> <p>Operators should integrate related requirements found in DOE O 232.2 Admin Change 1, Occurrence Reporting and Processing of Operations Information, dated 8-30-11; DOE O 151.1C, Comprehensive Emergency Management System, dated 11-2-05; DOE O 470.4B Admin change 1, Safeguards and Security Program, dated 7-21-11; and DOE O 205.1B Change 3, Department of Energy Cyber Security Program, dated 5-16-11, and applicable regulatory notification requirements.</p> <p>Notes:</p> <p>1) Contractor requirements of DOE O 232.2 are incorporated into FA 01 (Management Systems).</p> <p>2) Contractor requirements of DOE O 151.1C are incorporated into FA 05 (Emergency Management).</p> <p>3) DOE O 205.1B is being implemented as a Non-ESH document by the implementation of the Cyber Security Plan.</p> <p>4) The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p> <p>5) DOE O 232.2 has been superseded by DOE O 232.2A.</p> <p>6) DOE O 151.1C has been superseded by DOE O 151.1D.</p> <p>7) DOE O 470.4B Admin Change 1 has been superseded by DOE O 470.4B Chg 2 (MinChg).</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.01.050	DOEO422.1-AChg2	Att.2.2.1.(1)	<p>SPECIFIC REQUIREMENTS.</p> <p>Turnover and Assumption of Responsibilities. (DOE-STD-1038-93 (CH-1), Guide to Good Practices for Operations Turnover)</p> <p>The operator must establish and implement operations practices for thorough, accurate transfer of information and responsibilities at shift or operator relief to ensure continued safe operation, addressing the following elements:</p> <p>(1) Definitions for all key positions requiring a formal turnover process</p> <p>a. Procedures contain provisions for using a turnover process for at least the supervisory positions</p> <p>b. Procedures contain provisions for using a turnover process for key positions, including appropriate stations staffed part-time</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.01.051	DOEO422.1-AChg2	Att.2.2.1.(2)	<p>SPECIFIC REQUIREMENTS.</p> <p>Turnover and Assumption of Responsibilities. (DOE-STD-1038-93 (CH-1), Guide to Good Practices for Operations Turnover)</p> <p>The operator must establish and implement operations practices for thorough, accurate transfer of information and responsibilities at shift or operator relief to ensure continued safe operation, addressing the following elements:</p> <p>(2) Turnover of equipment/facility status, duties, and responsibilities that results in the safe and effective transfer of equipment status and in progress or planned activities from one shift or workgroup to the next</p> <p>a. Turnover procedures contain provisions for documenting a review of checklists or other documents that record key information appropriate for the position, either operational or supervisory, such as:</p> <ul style="list-style-type: none"> * Facility operating mode and status * Key process parameters * Key tank or vessel levels * Status of safety equipment * Operational limits in effect * Limiting Conditions for Operations in effect, either normal or abnormal * Any procedures, either standard or temporary, in progress * Changes in radiological or hazardous material conditions * Waste management status * Required samples or analyses * Upcoming or in-progress maintenance, testing, or evolutions <p>b. Turnover procedures contain provisions for operators and supervisors to complete document reviews before assuming responsibility for their position, reviewing in enough detail to understand status, important history, and plans. Such reviews normally extend back the shorter of 24 hours or their last shift.</p> <p>c. Turnover procedures contain provisions for operators and supervisors to walk down appropriate control panels and computer displays to determine facility status, alarms, lineups, and equipment configuration. For control areas, the oncoming and offgoing personnel jointly walk down the control panels and displays. Supervisors and operators walk down panels early in the shift and preferably before turnover.</p> <p>d. Turnover procedures contain provisions for offgoing and oncoming operators and supervisors to discuss, during stable facility conditions whenever possible, turnover documentation and clarify any questions.</p> <p>e. Turnover procedures contain provisions that when all turnover items are complete and the oncoming person understands the status, they formally state that they assume responsibility and make a narrative log entry to that effect. status, problems, upcoming work, or other appropriate topics.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.01.051	DOEO422.1-AChg2	Att.2.2.1.(2) (cont.)	<p>SPECIFIC REQUIREMENTS. (cont.)</p> <p>f. Turnover procedures contain provisions for operations supervisors to conduct briefings as needed for their oncoming shift operators and appropriate support personnel (vendors, maintenance, crafts) to review status, problems, upcoming work, or other appropriate topics.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	
09.03.01.052	DOEO422.1-AChg2	Att.2.2.1.(3)	<p>SPECIFIC REQUIREMENTS.</p> <p>Turnover and Assumption of Responsibilities. (DOE-STD-1038-93 (CH-1), Guide to Good Practices for Operations Turnover)</p> <p>The operator must establish and implement operations practices for thorough, accurate transfer of information and responsibilities at shift or operator relief to ensure continued safe operation, addressing the following elements:</p> <p>(3) Process for reliefs during a shift</p> <p>a. Turnover procedures contain provisions for conducting operator and supervisor reliefs during shifts. These turnovers may include a less exhaustive process than the regular shift change as long as the oncoming person is at least as knowledgeable as they would be from a regular turnover.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.01.053	DOEO422.1-AChg2	Att.2.2.m	<p>SPECIFIC REQUIREMENTS.</p> <p>Control of Interrelated Processes. (DOE-STD-1037-93 (CH-1), Guide to Good Practices for Operations Aspects of Unique Processes)</p> <p>The operator must establish and implement operations practices to ensure that interrelated processes do not adversely affect facility safety or operations, addressing the following elements:</p> <p>(1) defined responsibilities with respect to the control of interrelated processes (processes or activities that can affect operations, but are under the control of persons other than the affected operators, such as shared support systems or special testing);</p> <p>(2) operator training and qualification to understand interrelated processes, to interpret instrument readings, and provide timely corrective action for process-related problems; and</p> <p>(3) establish lines of communication between operating personnel, process support personnel, and other interrelated process operators for coordination of activities.</p>	X	X					X	
09.03.01.054	DOEO422.1-AChg2	Att.2.2.p.(1)	<p>SPECIFIC REQUIREMENTS.</p> <p>Technical Procedures. (DOE-STD-1029-92 (CH-1), Writer's Guide for Technical Procedures)</p> <p>The operator must establish and implement operations practices for developing and maintaining accurate, understandable written technical procedures that ensure safe and effective facility and equipment operation, addressing the following elements:</p> <p>(1) Expectations for the use of procedures to perform operations. a. Management policies establish the expectation that operators will use written procedures for operations, will perform them as written, and will stop work and notify management when procedures cannot be executed as written.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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	
09.03.01.055	DOEO422.1-AChg2	Att.2.2.p.(2)	<p>SPECIFIC REQUIREMENTS.</p> <p>Technical Procedures. (DOE-STD-1029-92 (CH-1), Writer’s Guide for Technical Procedures)</p> <p>The operator must establish and implement operations practices for developing and maintaining accurate, understandable written technical procedures that ensure safe and effective facility and equipment operation, addressing the following elements:</p> <p>(2) A process for procedure development</p> <p>a. Directives include a written process for procedure development, including format, clear language standards, and configuration control.</p> <p>b. Management policies designate procedures to be developed for all anticipated operations, evolutions, tests, and abnormal or emergency situations.</p> <p>c. Management policies direct alarm/annunciator response procedures to be developed for all alarm panels</p> <p>d. Directives designate a senior manager responsibility for procedure development, and include provisions for the capabilities and experience of procedure writers.</p> <p>e. Directives include a process for completing and documenting procedure review and approval of both hard-copy and electronic procedures.</p> <p>f. Directives specify that procedures will provide administrative and technical direction to effectively conduct the operation, using detail appropriate to the complexity of the task, the experience and training of the operators, the frequency of performance, and the significance of the consequences of error.</p> <p>g. Procedure preparation records contain documentation of the reason for key steps so they are not inadvertently deleted or changed in revisions and changes</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X						X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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	
09.03.01.056	DOEO422.1-AChg2	Att.2.2.p.(3)	<p>SPECIFIC REQUIREMENTS.</p> <p>Technical Procedures. (DOE-STD-1029-92 (CH-1), Writer’s Guide for Technical Procedures)</p> <p>The operator must establish and implement operations practices for developing and maintaining accurate, understandable written technical procedures that ensure safe and effective facility and equipment operation, addressing the following elements:</p> <p>(3) Procedure content, including consistent format and use of terms (e.g. prerequisites, warnings, cautions, notes, hold points, etc.), detail sufficient for accomplishing the operation, technically accurate procedures capable of performance as written, and procedure conformance with the facility design and manufacturer documentation</p> <p>a. Procedure scope and applicability are readily apparent</p> <p>b. Procedures for multiple equipment trains are clearly distinguishable from each other</p> <p>c. Emergency procedures are clearly distinguishable from normal operating procedures</p> <p>d. Procedures incorporate appropriate information from applicable source documents, including design, safety basis, and vendor technical documents.</p> <p>e. Prerequisites and initial conditions are clearly specified.</p> <p>f. Tools, equipment, and materials are specified and procedures provide measures to document their calibration or condition before use.</p> <p>g. Hold points requiring independent verification or approval are clearly indicated</p> <p>h. Procedure language is clear, definitions are explained, and detail is appropriate for the operators’ skill, experience, and training.</p> <p>i. Procedure format standards: One action per step; Warnings, Notes, and Cautions are clear, do not contain actions, and precede the applicable step; Warnings, Notes, Cautions, and headings appear on the same page as the applicable step.</p> <p>j. Procedures are technically and administratively accurate: instructions and information are correct; referenced documents are correctly identified; and instructions for transferring between procedures are clear</p> <p>k. Critical steps include signature/initial/checkoff blocks, with only one action per block</p> <p>l. Instrument readings and tolerances are specified and conform to instrument scales or readability</p>	X	X						X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.01.056	DOEO422.1-AChg2	Att.2.2.p.(3) (cont.)	<p>SPECIFIC REQUIREMENTS. (cont.)</p> <p>m. Procedures contain explicit parameters and do not require mental arithmetic to determine acceptability. Any calculations are clearly explained and procedures provide space to record them</p> <p>n. Procedure step sequence conforms to normal operational sequence</p> <p>o. Procedures reflect human factors considerations such as procedure callouts exactly matching equipment labels, units in procedures match instrument markings, charts and graphs easily read, and important steps or information highlighted.</p> <p>p. Emergency procedures provide guidance for both single and multiple casualties.</p> <p>q. When procedures use or refer to other procedures or steps, they are clearly identified with the exact identification to prevent confusion in transferring to or from them.</p> <p>r. Procedures specify the restoration or shutdown steps for equipment following tests or other operations.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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	
09.03.01.057	DOEO422.1-AChg2	Att.2.2.p.(4)	<p>SPECIFIC REQUIREMENTS.</p> <p>Technical Procedures. (DOE-STD-1029-92 (CH-1), Writer’s Guide for Technical Procedures)</p> <p>The operator must establish and implement operations practices for developing and maintaining accurate, understandable written technical procedures that ensure safe and effective facility and equipment operation, addressing the following elements:</p> <p>(4) A process for procedure changes (pen and ink or page changes) and revisions (complete reissues)</p> <p>a. Directives include a documented process for review and approval of revisions and changes. Directives may also use only a revision process or may use an electronic publishing process. In all cases, configuration control must be maintained.</p> <p>b. Procedure changes intended for more than one-time use are documented in a location readily available for operator reference and noted in timely orders/instructions and/or turnover documents.</p> <p>c. Directives contain provisions for initiation of changes or revisions if procedure problems are found, including provisions for emergent changes or revisions necessary to proceed with operations when a procedure is faulty.</p> <p>d. Directives contain provisions for initiating a procedure revision when changes remain in effect for extended periods (e.g. more than 6 months) or when several changes have accumulated (e.g. more than 5)</p> <p>e. Directives contain provisions for including all outstanding changes in any procedure’s revision.</p> <p>f. Directives include provisions for implementing revisions for permanent equipment modifications or replacements, and implementing changes for temporary equipment modifications</p> <p>g. Directives include provisions to review procedure development records of the reason for key steps to prevent inadvertent deletion or change.</p> <p>h. Directives include provisions to use walkthroughs (procedure execution with actual or simulated operation of components by subject matter expert(s)) to validate procedure changes and revisions.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X						X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.01.058	DOEO422.1-AChg2	Att.2.2.p.(5)	<p>SPECIFIC REQUIREMENTS.</p> <p>Technical Procedures. (DOE-STD-1029-92 (CH-1), Writer's Guide for Technical Procedures)</p> <p>The operator must establish and implement operations practices for developing and maintaining accurate, understandable written technical procedures that ensure safe and effective facility and equipment operation, addressing the following elements:</p> <p>(5) A process for training personnel on new, revised, or changed procedures</p> <p>a. Directives include provisions for communicating important procedure changes and revisions to operating personnel through required reading or other appropriate method</p> <p>b. Directives include provisions for communication of procedure changes and revisions to the training department to update training courses</p> <p>c. Directives include provisions for communication of procedure changes and revisions to the organizations responsible for personnel qualification to update qualification requirements</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.01.059	DOEO422.1-AChg2	Att.2.2.p.(6)	<p>SPECIFIC REQUIREMENTS.</p> <p>Technical Procedures. (DOE-STD-1029-92 (CH-1), Writer's Guide for Technical Procedures)</p> <p>The operator must establish and implement operations practices for developing and maintaining accurate, understandable written technical procedures that ensure safe and effective facility and equipment operation, addressing the following elements:</p> <p>(6) A process for approval of new, revised, or changed procedures</p> <p>a. Directives include provisions for operations supervisor or manager approval of new or revised procedures prior to use, with reviews of revisions to at least the depth as the initial version.</p> <p>b. Directives include provisions for safety committee or safety manager or equivalent, and, if applicable, emergency manager, review of procedures that affect safety-related equipment or emergency response.</p> <p>c. Directives include provisions defining appropriate circumstances for expeditious approval of minor procedure changes and the process, with a minimum of at least one designated senior qualified operator and one senior operations manager approval, followed up by standard review and approval within a short period, up to 2 weeks.</p> <p>d. Directives include provisions for using the standard review and approval process for changes that do not meet the facility's criteria for minor changes.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.01.060	DOEO422.1-AChg2	Att.2.2.p.(7)	<p>SPECIFIC REQUIREMENTS.</p> <p>Technical Procedures. (DOE-STD-1029-92 (CH-1), Writer's Guide for Technical Procedures)</p> <p>The operator must establish and implement operations practices for developing and maintaining accurate, understandable written technical procedures that ensure safe and effective facility and equipment operation, addressing the following elements:</p> <p>(7) Initial-issue and periodic review and testing of procedures</p> <p>a. Directives include provisions for review of new and revised procedures prior to use and periodically for technical accuracy and human factors considerations.</p> <p>b. Directives specify the frequency of periodic procedure reviews, considering the complexity of the operation, maturity of operations, and facility life cycle.</p> <p>c. Directives include provisions for reviewing procedures after a significant occurrence, either human error or equipment upset.</p> <p>d. Procedure reviews include comparison to source documents to verify accuracy.</p> <p>e. Procedure reviews include validation walkthroughs.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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	
09.03.01.061	DOEO422.1-AChg2	Att.2.2.p.(8)	<p>SPECIFIC REQUIREMENTS.</p> <p>Technical Procedures. (DOE-STD-1029-92 (CH-1), Writer's Guide for Technical Procedures)</p> <p>The operator must establish and implement operations practices for developing and maintaining accurate, understandable written technical procedures that ensure safe and effective facility and equipment operation, addressing the following elements:</p> <p>(8) Availability and use of the latest revisions of procedures</p> <p>a. Directives include provisions for maintenance of a controlled copy of all operating procedures at the control area for operator reference, and selected procedure controlled copies at appropriate locations outside the control area.</p> <p>b. Directives include provisions for verifying working copies of procedures against controlled copies for use during evolutions, and controlling working copies to prevent using outdated procedures.</p> <p>c. Directives include provisions for maintenance of controlled copies of alarm and annunciator response procedures readily accessible to operators for alarm response.</p> <p>d. Directives detail how operators obtain current copies of electronic or hard-copy procedures for performing evolutions, and how to determine procedure approval and revision status.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X						X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.01.062	DOEO422.1-AChg2	Att.2.2.p.(9)	<p>SPECIFIC REQUIREMENTS.</p> <p>Technical Procedures. (DOE-STD-1029-92 (CH-1), Writer’s Guide for Technical Procedures)</p> <p>The operator must establish and implement operations practices for developing and maintaining accurate, understandable written technical procedures that ensure safe and effective facility and equipment operation, addressing the following elements:</p> <p>(9) Specified and defined procedure use requirements, i.e. reader-worker method, reference use only, use-each time, and emergency response</p> <p>a. Operators are trained in procedure use requirements and management oversight reinforces the expectations</p> <p>b. Directives and management policy contain provisions for operators to report deficient procedures and initiate changes or revisions to correct them instead of continuing on. During emergency conditions, operators may take necessary action to place the facility in a safe condition, and to protect equipment, personnel, and public safety without first initiating a procedure change.</p> <p>c. Directives define applicable procedure use methods and specify when to use them. Options include reader-worker, reference, fill out steps as a checklist, and others.</p> <p>d. Directives include provisions for use of procedures for emergency response. Normally, immediate actions are committed to memory and may be executed without reference to the procedure. When conditions permit, operators use the procedure to check completion of the immediate actions and continue with follow-up actions.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.03.030	DOEO422.1-AChg2	Att.2.2.h.(1)	<p>SPECIFIC REQUIREMENTS.</p> <p>Control of Equipment and System Status. (DOE-STD-1039-93 (CH-1), Guide to Good Practices for Control of Equipment and System Status)</p> <p>The operator must establish and implement operations practices for initial equipment lineups and subsequent changes to ensure facilities operate with known, proper configuration as designed, addressing the following elements:</p> <p>(1) Authorization for, and awareness of, equipment and system status changes</p> <p>a. Operations supervisor is responsible for maintaining proper configuration and authorizing status changes for major equipment</p> <p>b. Operations supervisor may delegate status change authorizations for support or less-important systems and equipment</p> <p>c. Status changes are communicated to affected operators and organizations</p> <p>d. Status changes resulting from operations or work are reported to cognizant supervisors.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.03.031	DOEO422.1-AChg2	Att.2.2.h.(2)	<p>SPECIFIC REQUIREMENTS.</p> <p>Control of Equipment and System Status. (DOE-STD-1039-93 (CH-1), Guide to Good Practices for Control of Equipment and System Status)</p> <p>The operator must establish and implement operations practices for initial equipment lineups and subsequent changes to ensure facilities operate with known, proper configuration as designed, addressing the following elements:</p> <p>(2) Initial system alignment, maintaining control of equipment and system status through startup, operation, and shutdown, and documentation of status</p> <p>a. Components and systems are aligned prior to first operation</p> <p>b. Checklists are used to guide initial alignments and rechecks, and include equipment identification matching installed labels, required component position, data entry space for actual position and any deviations, and documentation of alignment or recheck</p> <p>c. Supervisors review and approve completed alignment checklists</p> <p>d. Management determines the need for alignments and rechecks. Examples of situations that may need alignments or rechecks are startup from complete shutdown, outage recovery, or mode changes</p> <p>e. Restoration of safety-related systems following maintenance includes functional testing of their capability</p> <p>f. Records of equipment and system alignments are retained for operators' reference.</p> <p>g. Deviations from the reference alignment, including lockouts and tagouts, are tracked and controlled by a status board or other effective system</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.03.032	DOEO422.1-AChg2	Att.2.2.h.(3)	<p>SPECIFIC REQUIREMENTS.</p> <p>Control of Equipment and System Status. (DOE-STD-1039-93 (CH-1), Guide to Good Practices for Control of Equipment and System Status)</p> <p>The operator must establish and implement operations practices for initial equipment lineups and subsequent changes to ensure facilities operate with known, proper configuration as designed, addressing the following elements:</p> <p>(3) Use and approval of lockouts and tagouts for administrative control of equipment</p> <p>a. Supervisors approve lockouts and tagouts in their facility and remain aware of status changes that result</p> <p>b. Personnel are trained in their responsibilities concerning changing system or equipment status and operation of locked or tagged components</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.03.033	DOEO422.1-AChg2	Att.2.2.h.(4)	<p>SPECIFIC REQUIREMENTS.</p> <p>Control of Equipment and System Status. (DOE-STD-1039-93 (CH-1), Guide to Good Practices for Control of Equipment and System Status)</p> <p>The operator must establish and implement operations practices for initial equipment lineups and subsequent changes to ensure facilities operate with known, proper configuration as designed, addressing the following elements:</p> <p>(4) Operational Limits compliance and documentation</p> <p>a. Compliance with operational limits, including safety basis Limiting Conditions for Operations, is established through administrative controls. Compliance and actions taken to restore operation within limits are documented in facility records</p> <p>b. Supervisors are aware of, and direct completion of, actions to comply with operational limits</p> <p>c. Operational limit entry conditions and actions are documented in appropriate operating records.</p> <p>d. Operating personnel are kept informed of any limiting conditions and their required actions.</p> <p>e. Operating personnel periodically review Limiting Conditions for Operation and Action Statements in effect for proper implementation.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.03.034	DOEO422.1-AChg2	Att.2.2.h.(5)	<p>SPECIFIC REQUIREMENTS.</p> <p>Control of Equipment and System Status. (DOE-STD-1039-93 (CH-1), Guide to Good Practices for Control of Equipment and System Status)</p> <p>The operator must establish and implement operations practices for initial equipment lineups and subsequent changes to ensure facilities operate with known, proper configuration as designed, addressing the following elements:</p> <p>(5) Management of equipment deficiencies, maintenance activities, post maintenance testing, and return to service</p> <p>a. Operators note equipment deficiencies, document them in work control systems for correction, and identify them to other operators by tags, logs, status boards, or other effective method</p> <p>b. Designated managers authorize in writing the work control documents for all activities, including maintenance on equipment important to safety, on equipment that affects operations, or that changes control indications or alarms</p> <p>c. The status of work in progress is documented and available for review by operators</p> <p>d. Work control documents specify retest requirements to ensure, prior to restoration to service, proper functioning, effectiveness of the maintenance, and that no new problems were introduced.</p> <p>e. Supervisors assure themselves of proper equipment operation before authorizing its return to service after maintenance, testing, or emergency/abnormal event</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.03.035	DOEO422.1-AChg2	Att.2.2.h.(6)	<p>SPECIFIC REQUIREMENTS.</p> <p>Control of Equipment and System Status. (DOE-STD-1039-93 (CH-1), Guide to Good Practices for Control of Equipment and System Status)</p> <p>The operator must establish and implement operations practices for initial equipment lineups and subsequent changes to ensure facilities operate with known, proper configuration as designed, addressing the following elements:</p> <p>(6) Awareness and documentation of control panel and local alarm issues</p> <p>a. Operators and supervisors are aware of inoperable alarms, alarms with temporary set points, multiple input alarms that do not provide indication of a subsequent condition, or other limitations</p> <p>b. Deficient alarms are documented for information to all affected personnel and entered into work control systems for correction</p> <p>c. Operators take appropriate actions to monitor conditions when alarms are unreliable</p> <p>d. Operators and supervisors are aware of alarms expected during normal operations</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.03.036	DOEO422.1-AChg2	Att.2.2.h.(7)	<p>SPECIFIC REQUIREMENTS.</p> <p>Control of Equipment and System Status. (DOE-STD-1039-93 (CH-1), Guide to Good Practices for Control of Equipment and System Status)</p> <p>The operator must establish and implement operations practices for initial equipment lineups and subsequent changes to ensure facilities operate with known, proper configuration as designed, addressing the following elements:</p> <p>(7) Control of temporary equipment modifications and temporary systems</p> <p>a. Administrative systems control temporary modifications; examples include electrical jumpers or lifted leads, pulled circuit cards, disabled alarms, piping jumpers or blocks, disabled relief valves, strainers or filters temporarily installed or removed, temporary shielding, blocked drains, and others</p> <p>b. Administrative systems control temporary systems</p> <p>c. Administrative controls include:</p> <ol style="list-style-type: none"> 1. Appropriate engineering review and approval of the design and safety of the modification before installation 2. Written authorization for installation 3. Independent verification of installation and removal 4. Documentation of the modifications 5. Completion of any training, procedure changes, or labeling required 6. Periodic audits of installed temporary modifications <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

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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	
09.03.03.037	DOEO422.1-AChg2	Att.2.2.h.(8)	<p>SPECIFIC REQUIREMENTS.</p> <p>Control of Equipment and System Status. (DOE-STD-1039-93 (CH-1), Guide to Good Practices for Control of Equipment and System Status)</p> <p>The operator must establish and implement operations practices for initial equipment lineups and subsequent changes to ensure facilities operate with known, proper configuration as designed, addressing the following elements:</p> <p>(8) Configuration control and distribution of engineering documents</p> <p>a. Administrative systems provide for configuration control of engineering documents per applicable DOE directives</p> <p>b. Processes provide for designating safety structures, systems, and components and their quality assurance requirements to support system engineer and maintenance needs</p> <p>c. Processes control safety software per applicable DOE directives</p> <p>d. Operations personnel and all other affected organizations have access to current, approved engineering documents.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X						X	

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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
09.03.03.038	DOEO422.1-AChg2	Att.2.2.j.(1)	<p>SPECIFIC REQUIREMENTS.</p> <p>Independent Verification. (DOE-STD-1036-93 (CH-1), Guide to Good Practices for Independent Verification)</p> <p>The operator must establish and implement operations practices to verify that critical equipment configuration is in accordance with controlling documents, addressing the following elements:</p> <p>(1) Structures, systems, components, operations, and programs requiring independent verification</p> <p>a. Procedures or other authoritative documents explicitly identify components whose positions must be independently verified.</p> <p>b. Management uses accepted safety analysis methods (for example, fault tree or probability risk analysis) and/or expert opinion to develop the list of equipment/components requiring independent verification.</p> <p>c. Facility management considers all safety-related system components for independent verification.</p> <p>d. Procedures allow exemption from independent verification for components whose mispositioning does not affect system performance, whose mispositioning is immediately known to operators, or where significant radiation exposure would be required for verification. Alternate means of determining position are considered, and any such exemptions are approved by senior operations management.</p> <p>e. Management considers independent verification for components whose mispositioning could challenge safety-related equipment, cause shutdowns or other undesirable results or lead to unintended toxic or radioactive material release.</p> <p>f. Management specifies safety management programs and other functions such as training and procedure development that will be independently appraised to verify their continued conformance with regulations and directives.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	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
09.03.03.039	DOEO422.1-AChg2	Att.2.2.j.(2)	<p>SPECIFIC REQUIREMENTS.</p> <p>Independent Verification. (DOE-STD-1036-93 (CH-1), Guide to Good Practices for Independent Verification)</p> <p>The operator must establish and implement operations practices to verify that critical equipment configuration is in accordance with controlling documents, addressing the following elements:</p> <p>(2) Situations requiring independent verification</p> <p>a. Procedures require independent verification when equipment must be available and it is reasonably possible that components were mispositioned.</p> <p>b. Procedures require independent verification of lineups to take equipment out of service or return it to service, e.g. isolation boundaries, equipment under maintenance or repair, instrumentation lineups for testing and their restoration, work on backup components and their restoration, etc.</p> <p>c. Procedures include appropriate independent verification for system lineups.</p> <p>d. Procedures include appropriate routine periodic verification of critical components during operation, which would not normally need a second check.</p> <p>e. Procedures include provisions for dealing with mispositioned components found during routine periodic checks or lineups, including appropriate management approval for repositioning and subsequent independent verification.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

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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	
09.03.03.040	DOEO422.1-AChg2	Att.2.2.j.(3)	<p>SPECIFIC REQUIREMENTS.</p> <p>Independent Verification. (DOE-STD-1036-93 (CH-1), Guide to Good Practices for Independent Verification)</p> <p>The operator must establish and implement operations practices to verify that critical equipment configuration is in accordance with controlling documents, addressing the following elements:</p> <p>(3) Methods for performing and documenting independent verification</p> <p>a. Management develops and approves verification techniques appropriate to facility-specific equipment, using manufacturer’s recommendations and expert operators</p> <p>b. Operators are trained in techniques appropriate to the facility’s equipment.</p> <p>c. Procedures provide reference documentation explaining how to perform verification of the facility’s components, e.g. manual, solenoid-,motor- and air-operated valves, circuit breakers, blank flanges, removable links and fuses, control power availability, and any other specific component position or condition required</p> <p>d. Procedures specify how to achieve independence, including having each check include identification of the component and determining both its required and actual position, and minimizing interactions between operators positioning components and those verifying position, except in special situations for throttled valves or to reduce radiation or toxic exposure. (concurrent dual verification)</p> <p>e. Procedures favor direct local position checks over remote indications, absent exposure considerations or other overriding factors.</p> <p>f. Procedures favor direct local position checks over process indications such as flow, pressure, or voltage, absent exposure considerations or other overriding factors. Any such indirect methods are specifically authorized in procedures.</p> <p>g. Procedures specify how to check throttled valves. Local mechanical position indicators, scribe marks, or other authorized methods are preferred over shutting and then opening a prescribed number of turns. If shutting/opening is necessary, facility procedures consider concurrent dual verification.</p> <p>h. Procedures favor direct local position checks over surveillance testing to show component positions. If surveillance tests are used, they must conclusively prove component position and must be specifically approved by operations management</p>	X	X						X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.03.040	DOEO422.1-AChg2	Att.2.2.j.(3) (cont.)	<p>SPECIFIC REQUIREMENTS. (cont.)</p> <p>i. Procedures specify that components danger tagged per the lockout/tagout program will not be manipulated for independent verification</p> <p>j. Procedures specify that verifiers do not change component position or status to correct an inconsistency</p> <p>k. Procedures specify how to document independent verification, including component identification; normal or expected position, desired position, final position, identification and signature or initials of positioners and verifiers for each item, and supervisory review</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	
09.03.03.041	DOEO422.1-AChg2	Att.2.2.j.(4)	<p>SPECIFIC REQUIREMENTS.</p> <p>Independent Verification. (DOE-STD-1036-93 (CH-1), Guide to Good Practices for Independent Verification)</p> <p>The operator must establish and implement operations practices to verify that critical equipment configuration is in accordance with controlling documents, addressing the following elements:</p> <p>(4) Situations, if any, allowing concurrent dual verification</p> <p>a. Procedures specify situations where concurrent dual verification is used. Examples are throttled valves that must be repositioned to determine position, or sequential operations such as a bolt torquing pattern.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.03.042	DOEO422.1-AChg2	Att.2.2.j.(5)	<p>SPECIFIC REQUIREMENTS.</p> <p>Independent Verification. (DOE-STD-1036-93 (CH-1), Guide to Good Practices for Independent Verification)</p> <p>The operator must establish and implement operations practices to verify that critical equipment configuration is in accordance with controlling documents, addressing the following elements:</p> <p>(5) Methods for performing concurrent dual verification, if used.</p> <p>a. Procedures specify how concurrent dual verification is done, if at all.</p> <p>b. Procedures for concurrent dual verification (if used) include provisions for maintaining independence to the maximum extent possible, and facility policies include provisions preventing the use of concurrent dual verification unless specifically authorized. [An example for a throttled valve: the operator would shut the valve, the verifier would verify the shut position, then the operator would open the valve the specified number of turns while the observer observes and counts turns silently, with both not influencing the other, and both record the position separately.]</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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	
09.03.04.023	DOEO422.1-AChg2	Att.2.2.i.(2)(a)	<p>SPECIFIC REQUIREMENTS.</p> <p>Lockout and Tagouts. (DOE-STD-1030-96, Guide to Good Practices for Lockouts and Tagouts)</p> <p>(2) The operator must establish and implement operations practices that address the following elements for the installation and removal of caution tags for equipment protection or operational control:</p> <p>(a) Roles and responsibilities associated with the development, documentation, review, installation, and removal of caution tags to convey operational information or equipment alignments for protection of equipment</p> <ol style="list-style-type: none"> 1. Personnel are formally designated to prepare, approve, and install tags 2. Personnel are trained on their responsibilities regarding tags 3. Procedures include provisions for documenting caution tags, including: <ul style="list-style-type: none"> * An indexing/numbering system, * Effective date and time, * The precaution or information applicable to the situation or equipment, * Location of tags by component name, * Number or other identification, * Authorization for installing the tags, * Documentation of placement and verification of the tags, * Authorization for removing tags, and * Documentation of removal. 4. Procedures designate the manager responsible for caution tag approval and location of records for review by appropriate personnel 5. Procedures contain provisions for management determination that instructions on caution tags comply with facility procedures, technical safety requirements, or other specifications 6. Situations requiring caution tags are brought to the attention of responsible managers, who approve them if necessary 7. Procedures contain provisions for a documented periodic review of all active caution tags to determine their continued need, that the records are correct, and that appropriate action is taken to remedy conditions requiring tags for long periods (over three months) <p>Notes:</p> <ol style="list-style-type: none"> 1) Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement. 2) For Lockout/tagout requirements for the protection of personnel (Sections 2.2.i.1.(a)-g), see FA 19 (Occupational Safety and Health) Requirements 19.03.02.069 through 19.03.02.073. 	X	X						X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.04.024	DOEO422.1-AChg2	Att.2.2.i.(2)(b)	<p>SPECIFIC REQUIREMENTS.</p> <p>Lockout and Tagouts. (DOE-STD-1030-96, Guide to Good Practices for Lockouts and Tagouts)</p> <p>(2) The operator must establish and implement operations practices that address the following elements for the installation and removal of caution tags for equipment protection or operational control:</p> <p>(b) Description and control of the tags</p> <p>1. Procedures contain provisions for caution tags to be uniquely identifiable and easily distinguished from other tags</p> <p>2. Procedures contain provisions for caution tag placement so as to not obscure indications or controls, while remaining readily apparent to operators</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	
09.03.04.025	DOEO422.1-AChg2	Att.2.2.i.(2)(c)	<p>SPECIFIC REQUIREMENTS.</p> <p>Lockout and Tagouts. (DOE-STD-1030-96, Guide to Good Practices for Lockouts and Tagouts)</p> <p>(2) The operator must establish and implement operations practices that address the following elements for the installation and removal of caution tags for equipment protection or operational control:</p> <p>(c) Measures to prevent relying on caution tags for personnel protection</p> <p>1. Procedures contain provisions restricting the use of caution tags to situations where a component or system is functional, but some precaution or item(s) of information is necessary prior to operation</p> <p>2. Procedures contain provisions for management determination that caution tags are appropriate and that they are not used instead of more appropriate administrative controls or a lockout/tagout.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.05.006	DOEO422.1-AChg2	Att.2.2.q.(1)	<p>SPECIFIC REQUIREMENTS.</p> <p>Operator Aids. (DOE-STD-1043-93 (CH-1), Guide to Good Practices for Operator Aid Postings)</p> <p>The operator must establish and implement operations practices to provide accurate, current, and approved operator aids, addressing the following elements:</p> <p>(1) Technical evaluation and management approval of operator aids</p> <p>a. Directives contain a process for developing, approving, and controlling operator aids.</p> <p>b. Operators, maintenance staff, and other facility staff are trained on the operator aids process</p> <p>c. Operator aids are approved by operations management prior to posting. Approving authorities determine the accuracy and necessity of operator aids.</p> <p>d. Directives and management practice do not allow operator aids to alter procedures, but instead initiate procedure revisions or changes if necessary.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	
09.03.05.007	DOEO422.1-AChg2	Att.2.2.q.(2)	<p>SPECIFIC REQUIREMENTS.</p> <p>Operator Aids. (DOE-STD-1043-93 (CH-1), Guide to Good Practices for Operator Aid Postings)</p> <p>The operator must establish and implement operations practices to provide accurate, current, and approved operator aids, addressing the following elements:</p> <p>(2) Operator aids serve as conveniences, not operational requirements.</p> <p>a. Directives and training provide that operator aids serve as a convenient reminder or quick reference source for information, not a substitute for procedures.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.05.008	DOEO422.1-AChg2	Att.2.2.q.(3)	<p>SPECIFIC REQUIREMENTS.</p> <p>Operator Aids. (DOE-STD-1043-93 (CH-1), Guide to Good Practices for Operator Aid Postings)</p> <p>The operator must establish and implement operations practices to provide accurate, current, and approved operator aids, addressing the following elements:</p> <p>(3) Operator aids do not obscure equipment,</p> <p>a. Directives call for posting operator aids close to the point of use in a manner that does not obscure indications or controls</p> <p>b. Directives call for operator aids to be sturdy, and securely mounted or stowed, and waterproof where necessary</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.05.009	DOEO422.1-AChg2	Att.2.2.q.(4)	<p>SPECIFIC REQUIREMENTS.</p> <p>Operator Aids. (DOE-STD-1043-93 (CH-1), Guide to Good Practices for Operator Aid Postings)</p> <p>The operator must establish and implement operations practices to provide accurate, current, and approved operator aids, addressing the following elements:</p> <p>(4) Administrative control of installed operator aids</p> <p>a. Directives controlling operator aids include provisions for maintaining a master list and copy of all approved operator aids in the control area or other appropriate area. The listing includes: - Unique identification numbers for each operator aid. - Listing of source documents for operator aid content, including revision status, or notation that there are no source documents for the rare aids that are not developed from other sources. - Date of approval, revision, and posting location for operator aids</p> <p>b. Directives controlling operator aids include provisions to update operator aids when their source material is updated.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.05.010	DOEO422.1-AChg2	Att.2.2.q.(5)	<p>SPECIFIC REQUIREMENTS.</p> <p>Operator Aids. (DOE-STD-1043-93 (CH-1), Guide to Good Practices for Operator Aid Postings)</p> <p>The operator must establish and implement operations practices to provide accurate, current, and approved operator aids, addressing the following elements:</p> <p>(5) Periodic review for adequacy and correctness</p> <p>a. Verify the accuracy, necessity, and condition of posted operator aids b. Verify only approved operator aids are posted c. Verify agreement between the master list and actual postings; remove or replace operator aids and update the master list as needed d. Verify operator aids reflect the latest revisions of source material</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.05.011	DOEO422.1-AChg2	Att.2.2.r.(1)	<p>SPECIFIC REQUIREMENTS.</p> <p>Component Labeling. (DOE-STD-1044-93 (CH-1), Guide to Good Practices for Equipment and Piping Labeling)</p> <p>The operator must establish and implement operations practices for clear, accurate equipment labeling, addressing the following elements:</p> <p>(1) Components that require a label</p> <p>a. Directives contain provisions for component labeling, including identification of components and standardized label format and colors. Labeled components include:</p> <ol style="list-style-type: none"> 1. Valves 2. Major equipment 3. Switches 4. Circuit breakers 5. Fuse panels or locations 6. Instruments and gauges 7. Busses and motor control centers 8. Cabinets, including, where appropriate, listing major components inside 9. Room doors 10. Emergency equipment 11. Fire protection systems 12. Piping 13. Any named SSC, item, or operator control <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.05.012	DOEO422.1-AChg2	Att.2.2.r.(2)	<p>SPECIFIC REQUIREMENTS.</p> <p>Component Labeling. (DOE-STD-1044-93 (CH-1), Guide to Good Practices for Equipment and Piping Labeling)</p> <p>The operator must establish and implement operations practices for clear, accurate equipment labeling, addressing the following elements:</p> <p>(2) Label information that uniquely identifies components and is consistent with regulations, standards, and facility documents</p> <p>a. Directives for component labeling contain provisions for label information to match facility documentation, including design and safety basis documents, procedures, lineup sheets, and other documents that refer to components.</p> <p>b. Label nomenclature, abbreviations, and identification codes are standardized and included in operator training.</p> <p>c. Labeled components have unique identification numbers</p> <p>d. Color codes are consistent and unambiguous.</p> <p>e. Piping labels indicate the fluid and normal flow direction</p> <p>f. Piping is color coded per OSHA/ANSI standards and piping for hazardous and explosive materials is uniquely identified.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.05.013	DOEO422.1-AChg2	Att.2.2.r.(3)	<p>SPECIFIC REQUIREMENTS.</p> <p>Component Labeling. (DOE-STD-1044-93 (CH-1), Guide to Good Practices for Equipment and Piping Labeling)</p> <p>The operator must establish and implement operations practices for clear, accurate equipment labeling, addressing the following elements:</p> <p>(3) Durable and securely attached labels that do not interfere with controls or equipment</p> <p>a. Labels, adhesives, and fasteners are made of durable materials compatible with the material to which they are attached</p> <p>b. Labels are securely attached</p> <p>c. Labels are oriented for easy reading and located as close as practical to the labeled item</p> <p>d. Labels do not interfere with equipment operations or indicators</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.03.05.014	DOEO422.1-AChg2	Att.2.2.r.(4)	<p>SPECIFIC REQUIREMENTS.</p> <p>Component Labeling. (DOE-STD-1044-93 (CH-1), Guide to Good Practices for Equipment and Piping Labeling)</p> <p>The operator must establish and implement operations practices for clear, accurate equipment labeling, addressing the following elements:</p> <p>(4) Administrative control of labels, including a process for promptly identifying and replacing lost or damaged labels, preventing unauthorized or incorrect labels, and control of temporary labels</p> <p>a. Directives prohibit informal labels and provide a process for replacing labels</p> <p>b. Directives provide for deliberate inspections for missing or damaged labels, such as post-maintenance checks, operator tours, lineup sheets, or other appropriate means.</p> <p>c. Directives include a process to document lost, damaged, or incorrect labels and procure replacements</p> <p>d. Directives include provisions for temporary replacement labels, including: documentation of senior operations supervisor approval, verification of proper placement, and documenting temporary labels in the facility</p> <p>e. Temporary labels have the same information content as permanent labels</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.04.008	DOEO422.1-AChg2	Att.2.2.k.(1)	<p>SPECIFIC REQUIREMENTS.</p> <p>Logkeeping. (DOE-STD-1035-93 (CH-1), Guide to Good Practices for Logkeeping)</p> <p>The operator must establish and implement operations practices to ensure thorough, accurate, and timely recording of equipment information for performance analysis and trend detection, addressing the following elements:</p> <p>(1) Narrative logs at all key positions, as defined by management, for the recording of pertinent information</p> <p>a. Procedures include provisions for narrative logs maintained by the operations supervisor or control area operator (or equivalent) at a minimum.</p> <p>b. Procedures include provisions for narrative logs at stations staffed part time to provide continuity and information pass-down.</p> <p>c. Procedures include provisions for narrative sections on round sheets when a separate narrative log is not maintained.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	
09.04.009	DOEO422.1-AChg2	Att.2.2.k.(2)	<p>SPECIFIC REQUIREMENTS.</p> <p>Logkeeping. (DOE-STD-1035-93 (CH-1), Guide to Good Practices for Logkeeping)</p> <p>The operator must establish and implement operations practices to ensure thorough, accurate, and timely recording of equipment information for performance analysis and trend detection, addressing the following elements:</p> <p>(2) Prompt and accurate recording of information</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.04.010	DOEO422.1-AChg2	Att.2.2.k.(3)	<p>SPECIFIC REQUIREMENTS.</p> <p>Logkeeping. (DOE-STD-1035-93 (CH-1), Guide to Good Practices for Logkeeping)</p> <p>The operator must establish and implement operations practices to ensure thorough, accurate, and timely recording of equipment information for performance analysis and trend detection, addressing the following elements:</p> <p>(3) Type, scope, and format for log entries</p> <p>a. Management provides written direction on information to be recorded in each log, including the following elements to be recorded in at least one log, but not necessarily all in the same log:</p> <ol style="list-style-type: none"> 1. Facility mode changes 2. Criticalities and criticality information (for reactors or critical experiments) 3. Abnormal facility configurations 4. Status changes of safety-related or other major equipment 5. Occurrence of reportable events 6. Starting and completing surveillance tests 7. Entering and exiting Limiting Conditions for Operations 8. Security incidents 9. Out-of-specification chemistry or process analysis results or measurements 10. Shift reliefs 11. Significant information concerning emergencies, abnormal, or unexpected events, but not to interfere with taking appropriate response actions. <p>b. Management provides written direction on the format for log entries, including legible, permanent, smear-proof, entries capable of machine copying</p> <p>c. Management provides written direction on electronic log entries, if used.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.04.011	DOEO422.1-AChg2	Att.2.2.k.(4)	<p>SPECIFIC REQUIREMENTS.</p> <p>Logkeeping. (DOE-STD-1035-93 (CH-1), Guide to Good Practices for Logkeeping)</p> <p>The operator must establish and implement operations practices to ensure thorough, accurate, and timely recording of equipment information for performance analysis and trend detection, addressing the following elements:</p> <p>(4) Method for recording late entries and correcting erroneous entries without obscuring the original entry</p> <p>a. Management provides written direction on how to make late entries, including noting the actual time late entries are made and prohibiting rewriting logs to make entries appear timely.</p> <p>b. Management provides written direction on how to make log corrections. A widely-accepted industry standard is to make a single lineout through the incorrect entry without obscuring it and writing the correct entry in a nearby space, with the date and initials of the person making the correction.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	

TABLE 1 - S/RID FUNCTIONAL AREA 09 (CONDUCT OF OPERATIONS) 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
09.04.012	DOEO422.1-AChg2	Att.2.2.k.(5)	<p>SPECIFIC REQUIREMENTS.</p> <p>Logkeeping. (DOE-STD-1035-93 (CH-1), Guide to Good Practices for Logkeeping)</p> <p>The operator must establish and implement operations practices to ensure thorough, accurate, and timely recording of equipment information for performance analysis and trend detection, addressing the following elements:</p> <p>(5) Periodic supervisory reviews for accuracy, adequacy, and trends</p> <p>a. Management provides written direction for periodic supervisory review of logs for accuracy, completeness, timeliness, trends, and conformance with management direction.</p> <p>b. Log review practices include periodic operations supervisor review of control area logs, and periodic review of operating station logs outside the control area by the control area supervisor or other appropriate manager.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	
09.04.013	DOEO422.1-AChg2	Att.2.2.k.(6)	<p>SPECIFIC REQUIREMENTS.</p> <p>Logkeeping. (DOE-STD-1035-93 (CH-1), Guide to Good Practices for Logkeeping)</p> <p>The operator must establish and implement operations practices to ensure thorough, accurate, and timely recording of equipment information for performance analysis and trend detection, addressing the following elements:</p> <p>(6) Document retention requirements</p> <p>a. Management provides written direction on keeping logs available for operator review after return from periods of absence.</p> <p>b. Management provides written direction on log storage and preservation for the expected life of the facility or as directed by DOE and National Archives and Records Administration regulation</p> <p>c. Management provides written direction on how to retrieve stored logs.</p> <p>Note: The appropriate detailed attributes from Appendix A of Attachment 2 have been included in this requirement.</p>	X	X					X	