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Manual: 9 - Operations

USE TYPE 3

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*The current revision can be verified on EDMS.

1. INTRODUCTION

1.1 Purpose

This chapter provides the minimum standards for the preparation, approval, and control of operations procedures. Operations procedures provide specific direction for operating systems and equipment during normal and postulated abnormal, emergency, or casualty conditions.

1.2 Scope and Applicability

This chapter applies to activities that require specific direction for operating systems and equipment to ensure the facility is maintained within its design basis and to support safe and reliable operation of the facility. Included in this application are procedures used for operational tasks, such as (but not limited to); technical procedures (TPR), emergency, abnormal operating, and alarm response procedures (EAR), analytical chemistry laboratory procedure (ACLP), analytical chemistry methods manual (ACMM), and sampling procedures (SPR).

2. RESPONSIBILITIES

Performer	Responsibilities
<i>Operations management</i> (see def.)	Approve operations procedures as appropriate. Determine review requirements of operations procedures. Ensure operations procedures are available for use. Ensure operators are trained in the use of procedures.
Operations personnel	Review operations procedures as required. Use and follow procedures as written. Initiate <i>operations procedure changes</i> (see def.) as appropriate.
Document owner	Concur with operations procedure changes and <i>operations procedure revisions</i> (see def.). Approve <i>grammatical corrections</i> (see def.).

3. PREREQUISITES

None

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4. INSTRUCTIONS

4.1 Procedure Development

NOTE: *Operations procedures developed for annunciator and alarm response guide the operator in verifying abnormal conditions or changes in plant status and provide the appropriate corrective action.*

4.1.1 Operations management: Ensure operations procedures are developed for anticipated operations, tests, abnormal or emergency situations, according to the following guidelines:

- 4.1.1.1 Provide administrative and technical direction to conduct the intent of the procedure effectively.
- 4.1.1.2 Tailor the extent of detail in an operations procedure to the following criteria:
 - A. complexity of the task
 - B. experience and training of the user(s)
 - C. frequency of performance
 - D. significance of the consequences of error.
- 4.1.1.3 Develop operations procedures in accordance with MCP-135, “Document Management.”

NOTE: *Operations procedure preparation, verification, and validation should receive high-level attention. Qualifications for procedure writers should be considered, including operating organization and experience.*

4.1.2 Ensure review, verification, and validation are formalized for written and software procedures.

4.2 Procedure Content

4.2.1 Operations management: Ensure operations procedures conform to the following guidelines, as appropriate for the type of procedure:

- 4.2.1.1 Ensure scope and applicability of individual procedures is readily apparent.
- 4.2.1.2 Use a method to identify procedures with single-unit applicability to avoid confusion with sister-unit procedures.

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- 4.2.1.3 Distinguish emergency procedures from operations procedures (color coding may be used for this purpose).
- 4.2.1.4 Incorporate appropriate information from applicable source documents such as the facility design documents, safety analysis documents, and vendor technical manuals into procedures.
- 4.2.1.5 Give careful consideration to the location of prerequisites, initial conditions, and other information within a procedure in order to help ensure that the intent of the procedure is understood.
- 4.2.1.6 Before implementing any test procedure, perform the following steps.
 - 4.2.1.6.1 Verify any equipment necessary for execution of the procedure is operable, calibrated, or inspected and in good condition where possible
 - 4.2.1.6.2 Identify required verifications in the prerequisites section with completion signoffs.
 - 4.2.1.6.3 Ensure “Hold” points are clearly delineated.
- 4.2.1.7 Specify any prerequisites and required initial plant, facility and system conditions.
- 4.2.1.8 Explain definitions where used in the procedure.
- 4.2.1.9 Ensure procedures are easily understood and actions are clearly stated.
- 4.2.1.10 Make sure procedures contain only one action per step.
- 4.2.1.11 Ensure procedures contain sufficient, but not excessive, detail. (The skill level, experience, and training of individuals should be considered when preparing a procedure.)
- 4.2.1.12 Make sure warnings and cautions are easily identifiable and do not contain action statements.
- 4.2.1.13 Place warnings and cautions preceding the step to which they apply and on the same page as the step to which they apply.

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- 4.2.1.14 Make sure procedures are technically and administratively accurate.
- 4.2.1.15 For use type 1 (see Appendix A) procedures, perform the following steps:
 - 4.2.1.15.1 Provide individual signoffs for selected critical steps.
 - 4.2.1.15.2 Do not normally apply a signoff to more than one action.
- 4.2.1.16 Specify limits/tolerances for operating parameters that are consistent with the readable accuracy of the instrumentation.
- 4.2.1.17 Do not require operators to perform mental arithmetic to determine if a specified parameter is acceptable.
- 4.2.1.18 Ensure acceptance criteria for surveillance or test procedures meet the following criteria:
 - A. Criteria are easily discerned, including tolerances and units
 - B. Any calculations needed to compare data to acceptance criteria are clearly explained.
- 4.2.1.19 Make sure sequence of procedural steps conforms to the normal or expected operational sequence.
- 4.2.1.20 Develop procedures with consideration for the human factors aspects of their intended use.
- 4.2.1.21 Identify equipment as it is labeled in the facility.
- 4.2.1.22 Make sure units listed in the procedures are the same as those marked on applicable instrumentation, charts, or graphs.
- 4.2.1.23 Highlight important factors such as operating limits, warnings, and cautions.
- 4.2.1.24 Ensure emergency operating procedures provide guidance in responding to single and multiple casualties.

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- 4.2.1.25 When performing a procedure within the procedure, identify portions or steps of other procedures that are used or referred to so as not to confuse operators when transferring between procedures.
- 4.2.1.26 Ensure component or system shutdown and restoration requirements following shutdown or a surveillance test activity are specific and controlled by the procedure.
- 4.2.1.27 Make sure Operations procedures conform to the controlled document requirements of MCP-135.

4.3 Procedure Changes and Revisions

- 4.3.1 Operations personnel: When procedure inadequacies or errors are noted in an operations procedure, initiate operations procedure changes or operations procedure revisions (as appropriate) in accordance with this section and MCP-135.
- 4.3.2 Document completed procedure changes intended for use more than one time in a location readily available to operations personnel for reference. Incorporate these changes in procedure copies being used for operations.
- 4.3.3 Operations management: Ensure the review and approval process for each procedure change or revision is documented.
- 4.3.4 Operations personnel: Initiate procedure revisions when a procedure change has been in effect for greater than six months or when a procedure contains more than five procedure changes.
- 4.3.5 Operations management: When the procedure is revised, ensure all currently effective procedure changes are incorporated.
 - 4.3.5.1 Ensure procedure revisions are implemented concurrently with modifications that affect the procedures.
 - 4.3.5.2 Handle procedure updates required by temporary modifications as procedure changes and implement them concurrently with the temporary modification installation.
- 4.3.6 Communicate important information regarding changed or revised operations procedures to appropriate operations personnel via the required reading program, pre shift briefing, or similar method.

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- 4.3.7 Ensure documentation of the reason for key procedure steps is maintained and reviewed when implementing changes or revisions to operations procedures.
- 4.3.8 Ensure changes or revisions to operations procedures, excluding grammatical corrections, are validated by a walkthrough or similar method.

4.4 Procedure Approvals

NOTE: *Procedures that are being developed and validated through the use of walk-throughs, dry runs, or mockup training do not require completion of the formal revision and approval process until they are ready for issue to perform the actual activities.*

- 4.4.1 Operations management: Review and approve operations procedures and revisions to operations procedures using the process described in MCP-135.
- 4.4.2 Ensure procedures that affect safety-related equipment and emergency procedures are reviewed by facility operations safety board or by another appropriate review mechanism.
- 4.4.3 For procedure changes to operations procedures that meet the requirements for an *operations procedure change – non-intent change* (see def.), obtain approval from the following people:
 - A. A qualified operator
 - B. A member of Operations management.
- 4.4.4 Document owner: Perform the following steps to concur with grammatical corrections or non intent document changes
 - 4.4.4.1 Ensure that required disciplines have reviewed the change.
 - 4.4.4.2 Concur with changes within two weeks as the person who would normally approve a revision or the initial version of the procedure.
- 4.4.5 Operations management: Ensure changes to operations procedures that alter the intent of the procedure receive the same depth of review and level of approvals as would be required by an initial version of the affected section(s) of the procedure.

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4.5 Procedure Review

- 4.5.1 Operations management: Ensure new and revised operations procedures are reviewed prior to initial issue.
- 4.5.2 Ensure issued operations procedures are reviewed:
 - A. Every five years or as determined by Operations management
 - B. When source documents change
 - C. After an abnormal event involving the procedure.
- 4.5.3 Compare operations procedures to the source documents during reviews to verify the procedure remains current with the source document.
- 4.5.4 Ensure operations procedures are reviewed and validated in accordance with MCP-135.

4.6 Procedure Availability

- 4.6.1 Operations management: Maintain controlled copies of operations procedures in control areas or other locations as necessary to ensure their availability for operator use.
 - 4.6.1.1 Maintain other selected controlled procedures at other appropriate locations.
 - 4.6.1.2 Ensure working copies of controlled procedures are available for use during evolutions.
- 4.6.2 Maintain controlled annunciator response procedures at locations such as the local alarm panel or other alternate locations so they are easily accessible to operators responsible for responding to alarms.
- 4.6.3 Ensure operations procedures are issued from a Document and Records Service Center.
 - 4.6.3.1 Ensure documentation of controlled operations procedures, their location, and who is responsible to maintain them current is established and maintained current.
 - 4.6.3.2 Ensure operations procedures are periodically verified to be the most current approved procedure.
 - 4.6.3.3 Ensure uncontrolled or information only copies of operations procedures are uniquely identified.

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- 4.6.4 Ensure working copies of operations procedures are controlled.
- 4.6.4.1 Because they have a limited lifespan, control working copies.
- 4.6.4.2 Prior to using uncontrolled working copies, ensure they have been compared to a controlled copy.
- 4.6.5 Operations personnel: Use controlled copies of company manuals and procedures.

NOTE: *These documents can be found on the Company intranet.*

4.7 Procedure Use

- 4.7.1 Operations personnel: Conduct facility operations that require specific direction for operating systems and equipment in accordance with written and approved operations procedures that reflect the facility design basis.
- 4.7.2 Operations management: Ensure the following criteria are met:
- A. Adequate operations procedures are available for use by operators.
 - B. Operations procedures are verified to be the most current controlled version prior to use.
 - C. Operators are trained and clearly understand their responsibilities for using operations procedures.
 - D. Operators are proficient with the procedure, have a clear understanding of the content and are familiar with performing the expected task to the procedure.
- 4.7.2.1 If the procedure has not been performed recently, and familiarity, complexity or hazards associated with the performance of the procedure warrant, perform a *procedure walk-through* (see def.).
- 4.7.3 Operations personnel: If an operations procedure is deficient or cannot be followed as written, perform the following steps:
- 4.7.3.1 Stop the operation.
 - 4.7.3.2 Notify the Operations manager or supervisor.

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- 4.7.3.3 Place the system or component in a safe condition or configuration.
- 4.7.3.4 Initiate a procedure change or revision.
- 4.7.4 If an operations procedure does not identify equipment as it is labeled in the facility, perform the following steps:
 - 4.7.4.1 Stop the operation.
 - 4.7.4.2 Notify the Operations manager or supervisor.
 - 4.7.4.3 Place the system or component in a safe condition or configuration.
 - 4.7.4.4 Correct the procedure or the label deficiency.
- 4.7.5 Operations manager or supervisor: IF during emergency or casualty conditions, an operations procedure is found to be deficient or cannot be followed as written, THEN give directions as necessary to place the facility in a safe condition, and to protect equipment, personnel, and public safety before initiating a procedure change or revision.
- 4.7.6 Operations personnel: operators are not required to reference emergency procedures during the performance of immediate actions since these actions are committed to memory. Emergency procedure actions should be reviewed after the immediate actions are completed to verify that all required actions have been taken.
- 4.7.7 Operations management and Operations personnel: Ensure procedures are referenced during infrequent or unusual evolutions when the operator is not intimately familiar with the procedure requirements or when errors could cause significant adverse impact to the facility.
- 4.7.8 Operations personnel: Use and follow operations procedures as written, in accordance with the requirements listed in Appendix A for the specific procedure *use type* (see def.).

4.8 Corrections

- 4.8.1 Operations personnel: When entering information on an operations procedure, form, or record, correct any entry errors as follows:
 - 4.8.1.1 Draw a single line through the error.
 - 4.8.1.2 Initial and date the error.

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4.8.1.3 Enter the correct information.

5. RECORDS

None

6. DEFINITIONS

Grammatical corrections. Corrections to procedures made to resolve errors that are purely grammatical. These corrections are completed using the MCP-135 Minor Revision process, are not considered changes or revisions as discussed in DOE O 422.1, “Conduct of Operations”, and require the approval of the Document Owner only. Grammatical errors do not need to be corrected before using a procedure since the intent of the procedure is clear even with the grammatical errors present. See MCP-135 definition of minor revision for examples of grammatical corrections.

Operations management (OM). (Also referred to as operations supervisor in this procedure and DOE Order 422.1, “Conduct of Operations”) Managers, as defined in PDD-1005, “ICP Management and Operations Manual.” OM encompasses titles such as NFM, B/FM, Operations Manager, Supervisor, Foreman, and others who have line management responsibilities. The OM is responsible for hazard identification, analysis, and control of an operational activity and the point of contact for resolving related issues. The actions required by this procedure may be delegated, but the responsibility for the proper execution of this procedure remains with the appropriate OM.

Operations procedure changes. Changes to operations procedures made in the field. Procedure changes do not require typing and are processed as DFC's per MCP-135. A total of five changes to a procedure may be performed without requiring a procedure revision. The procedure must be revised (see operations procedure revision) if a change to a procedure is needed and five changes already exist, or any existing change has been in effect for more than six months.

Procedure changes fall into one of two categories:

- A. Changes that affect the intent of the procedure (see Operations procedure changes - Intent changes)
- B. Changes that do not affect the intent of the procedure (see Operations procedure changes - non-intent changes.)

Operations procedure changes – Intent changes. Changes made to procedures in the field that change the technical content or result in altering how the procedure is performed. These changes include any changes that are not grammatical corrections or *operations procedure changes – non intent changes* (see def.). Changes to intent include:

- A. Increasing the safety risk to personnel

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- B. Introducing new hazards or increasing the risk associated with previously identified hazards
- C. Altering the meaning, essential purpose, or overall scope of the procedure, such as:
 - 1. Changing or eliminating any prerequisite or initial condition
 - 2. Changing or eliminating any reviews or approvals
 - 3. Changing roles, accountabilities or responsibilities
 - 4. Performing any step out of order (unless already specifically allowed in the procedure)
 - 5. Altering a source document requirement
 - 6. Changing the performance frequency
 - 7. Using different equipment or tools than specified
 - 8. Changing the use type of the procedure
 - 9. Changing reference number or reference title (unless the changes in the reference document are verified by USQ review to be editorial only)
 - 10. Changing procedure number or title (unless the changes in the reference procedure are verified by USQ review to be editorial only)
 - 11. Adversely affecting operator response to an event
- D. Altering or eliminating the operating, technical, design, process, regulatory, or quality control requirements of a procedure, such as:
 - 1. Deleting, waiving requirement for, or eliminating any inspection
 - 2. Changing the scope of or eliminating any survey
 - 3. Changing plant configuration or operating modes
 - 4. Adding or removing any major activities
 - 5. Creating or modifying a drawing
 - 6. Changing the technical aspects of a procedure step that is required to verify operability or functionality, or satisfy a commitment
 - 7. Reducing quality verification requirements (including hold points)

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8. Altering a design basis or required step to maintain safety basis as defined for a system, structure or component (SSC)
9. Adding or altering a compensatory action to address a non-conforming or degraded SSC
10. Affecting technical specifications or technical safety requirements from applicable designed safety analysis documents or any other licensing basis document.

Operations procedure changes – non intent changes. Changes made to procedures beyond grammatical corrections in the field to clarify the procedure or facilitate performance of the procedure without becoming operations procedure changes – Intent changes.

Operations procedure revision. A new, re-typed, and re-issued edition of the procedure. Procedure revisions are processed per MCP-135.

Operator(s). General term for operations personnel as used in this document and DOE Order 422.1, “Conduct of Operations”, which this document implements. For purposes of this procedure’s use, the term “operator” is used to indicate the person(s) qualified to perform the operational task, regardless of their position title, even if other than “operator.”

Procedure Walk-through. A step-by-step detailed walk-through of the procedure by operators, support personnel and supervision prior to performance. A walk-through is performed with procedure in hand and in the location where procedure actions take place, to the maximum extent practical.

Use type. Categorization of procedures based on the risks associated with the performance or impact to the facility of the procedure. Appendix A provides more details on the differences between use type 1, use type 2, and use type 3 procedures.

7. REFERENCES

DOE Order 422.1, “Conduct of Operations”

MCP-135, “Document Management”

PDD-1005, “ICP Management and Operations Manual”

8. APPENDIXES

Appendix A, Requirements for Procedure Use Types

Appendix B, Procedure Basis

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Appendix A**Requirements for Procedure Use Types****Use Type 1 Procedures:**

Use type 1 procedures meet the following criteria:

- A. Issued each time they are performed
- B. Contain steps that are signed off or initialed as they are performed
- C. Are in the physical possession of the user when the procedure is being performed
- D. Are followed in a step-by-step manner
- E. Steps are performed in sequence unless otherwise specified in the procedure
- F. Verified to be the current revision when issued for work.

Exceptions to Use Type 1 Procedure Requirements:

- A. Circumstances may exist that make it impossible or impractical for the operations procedure to be in the physical possession of the user; in this case, alternate methods may be used, such as one operator reading the procedure while another operator performs the procedure steps. The operator reading the procedure verifies and signs/initials for completion of steps as they are performed.
- B. Signoffs for steps of use type 1 procedures are normally applied to only one action (step). For steps of use type 1 procedures that are grouped (for example, several steps performed in rapid sequence), the signoff may be for that group of steps. Steps that are within a group are performed in the order in which they are written unless otherwise specified in the procedure.

Failure to perform a use type 1 procedure in a step-by-step manner could result in significant health, safety, or environmental risk to the employee or public or have a significant adverse impact to facility operations. TPRs fall into this type.

Use Type 2 Procedures:

Use type 2 procedures meet the following criteria:

- A. Do not contain steps that are signed off/initialed as they are performed
- B. Are available in the immediate area where the procedure is being performed
- C. Are referenced as necessary to correctly perform the procedure

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- D. Are followed in a step-by-step manner
- E. Steps are performed in sequence unless otherwise specified in the procedure
- F. Verified to be the current revision prior to use.

Failure to perform the procedure in a step-by-step manner could result in health, safety, or environmental risk to the employee or public, or have an adverse impact on facility operations. TPRs and EARs fall into this type.

Use Type 3 Procedures:

Use type 3 procedures meet the following criteria:

- A. Are administrative or reference in nature
- B. Are readily available to personnel
- C. Are consulted by personnel as necessary to comply with the procedure requirements.

Failure to comply with the procedure in a step-by-step manner would result in little or no risk to the employee or public or have little or no adverse impact to facility operations. MCPs and EPIs fall into this type.

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Appendix B

Procedure Basis

Step	Basis	Source	Citation
4.7.1, 4.7.3	Expectations for the use of procedures to perform operations.	DOE Order 422.1	Attachment 2, Appendix A, 2.p.(1)
4.1	A process for procedure development	DOE Order 422.1	Attachment 2, Appendix A, 2.p.(2)
4.2	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	DOE Order 422.1	Attachment 2, Appendix A, 2.p.(3)
4.3	A process for procedure changes (pen and ink or page changes) and revisions (complete reissues)	DOE Order 422.1	Attachment 2, Appendix A, 2.p.(4)
4.3.6,	A process for training personnel on new, revised, or changed procedures	DOE Order 422.1	Attachment 2, Appendix A, 2.p.(5)
4.4	A process for approval of new, revised, or changed procedures	DOE Order 422.1	Attachment 2, Appendix A, 2.p.(6)
4.5	Initial-issue and periodic review and testing of procedures	DOE Order 422.1	Attachment 2, Appendix A, 2.p.(7)
4.6	Availability and use of the latest revisions of procedures	DOE Order 422.1	Attachment 2, Appendix A, 2.p.(8)
4.7	Specified and defined procedure use requirements, i.e. reader-worker method, reference use only, use-each-time, and emergency response	DOE Order 422.1	Attachment 2, Appendix A, 2.p.(9)