

<b>MAJOR WORK PREPARATION AND REVIEW</b>		Identifier: MCP-3815	
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INTEC	Management Control Procedure	For Additional Info: <a href="http://EDMS">http://EDMS</a>	Effective Date: 10/09/06

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**USE TYPE 3**

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## 1. PURPOSE

Activities associated with design, purchase, fabrication, handling, shipping, storing, cleaning, assembly, inspection, testing, operation, maintenance, repair, and modification of items important to safety are quality affecting. Readiness for major work involving quality-affecting activities is assured by completion of personnel training/qualifications, implementing documents and management controls, and operability of facility and equipment associated with such activities.

## 2. SCOPE AND APPLICABILITY

This procedure applies to major work preparations and readiness verifications for the Fort St. Vrain (FSV) or Three Mile Island Unit 2 (TMI-2) Independent Spent Fuel Storage Installations (ISFSIs). Those program objectives needed to achieve readiness are identified on an activity-based schedule. Verifying readiness of major work is determined by ensuring adequate completion of activities on the activity based schedule.

Major work typically involves handling of spent nuclear fuel such as ISFSI loading or unloading operations, major repairs or modifications to the ISFSI, or any activity management determines that this procedure is the tool to affirm readiness.

**NOTE:** *The DOE orders, directives, standards, and other guidance for startup and restart of DOE nuclear facilities do not apply to the FSV and TMI-2 ISFSIs.*

## 3. RESPONSIBILITIES

Performer	Responsibilities
INTEC Facility Authority	M&O approval authority for startup of the activity.
Manager, ISFSI Management	Assure that readiness is attained for the activity.
ISFSI Manager	Coordinate the development of the activity based schedule and completion of activities in the activity based schedule.
Readiness Verification (RV) Team Lead	Prepare the RV Plan of Action (POA), conduct the RV, and prepare the RV final report.

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**4. INSTRUCTIONS****4.1 Planning Major Work**

4.1.1 Manager, ISFSI Management: Request the appropriate ISFSI Manager to prepare an activity-based schedule of all activities required to accomplish and assure readiness for identified major work.

4.1.2 ISFSI Manager: Determine all the activities to accomplish the work.

4.1.3 Coordinate the preparation of an activity based schedule to accomplish all the activities and assure readiness. The activities on the schedule should consider as minimum:

- A. Work prerequisites
- B. Safety or license basis documentation
- C. Personnel training and qualification
- D. Implementing documents, procedures and management controls
- E. Facility and equipment.

**NOTE:** *Activities listed on the Activity Based Schedule define the program objectives for the identified major work.*

4.1.4 ISFSI Manager: Approve the activity-based schedule and obtain the approval of the Manager, ISFSI Management.

**4.2 Preparing for Readiness**

4.2.1 ISFSI Manager: Assure completion of the scheduled activities.

4.2.2 Compile objective evidence files of completed activities.

4.2.3 Maintain the activity-based schedule by obtaining the reviews and approvals of changes in accordance with Step 4.1.

**4.3 Planning Readiness Verification**

4.3.1 Manager, ISFSI Management: Select the RV Team Leader for the identified work, at an appropriate time in the preparation process to support the defined schedule.

4.3.2 Meet with the Licensee (NE-ID) and determine the final start-up authority for the major work.

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- 4.3.3 RV Team Leader: Prepare a RV POA for the identified major work, based on the approved activity based schedule, including as a minimum:
- A. Scope of the review
  - B. Review and verification methodology to ensure objective evidence exists that, as a minimum:
    - Work prerequisites have been satisfied
    - Safety documentation has been completed and approved
    - Personnel have been suitably trained and qualified
    - Implementing documents and management controls are available and approved
    - Facility and equipment are available and ready.
  - C. Proposed schedule
  - D. Readiness verification signoff sheets.
- 4.3.4 ISFSI Management Operational Safety Board: Review and concur with the RV POA and determine if the POA is consistent with the activity-based schedule and is adequate to verify readiness of the activities.
- 4.3.5 Manager, ISFSI Management: Approve the RV POA and obtain the INTEC Facility Authority approval of the RV POA.
- 4.3.6 If the Licensee (NE-ID) has requested the final start-up authority, then transmit the POA for their review and concurrence.

**4.4 Performing Readiness Verification**

- 4.4.1 Manager, ISFSI Management: Following approval of the POA direct the RV Team Leader to begin the readiness verification.

**NOTE:** *It is not necessary to wait until all activities are complete to start the readiness verification process.*

- 4.4.2 ISFSI Manager: Notify the Manager, ISFSI Management, and the RV Team Leader when completed activities are ready for review.

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- 4.4.3 RV Team Leader: Implement the approved RV POA by:
- A. Selecting and assembling qualified RV team members
  - B. Assigning selected members to specific review areas
  - C. Having the team perform assigned reviews
  - D. Having the team document results
  - E. Updating the objective evidence files.
- 4.4.4 Immediately submit documentation of any *pre-start findings* (see def.) to the ISFSI Manager for corrective action.
- 4.4.5 ISFSI Manager: Implement corrective actions for pre-start findings identified by the RV team.
- 4.4.6 Notify the RV team leader/member when corrective actions have been completed and the activity is ready for re-verification.
- 4.4.7 RV Team Leader/Members: Notify start-up authority of readiness verification.
- 4.4.7.1 RV Team Leader: Present verification signoff sheet closures (by area as appropriate) to INTEC Facility Authority for closure approvals.
  - 4.4.7.2 RV Team Leader/Members: Resolve comments and issues and represent as necessary until closure approval is obtained.
- 4.4.8 INTEC Facility Authority: Based on the activity closure information presented, determine that all activities have been completed and the major work has attained readiness.
- 4.4.8.1 If the Licensee (NE-ID) has given start-up authority to the M&O then issue letter to the Manager, ISFSI Management for approval to start the major work covered by this RV.
  - 4.4.8.2 If the Licensee has retained start-up authority then issue a letter to the Licensee stating the identified major work has attained readiness and request their approval to commence the work.
- 4.4.9 ISFSI Manager: Upon approval from the final start-up authority, commence the work.

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#### 4.5 Documenting Readiness Verification

- 4.5.1 RV Team Leader: When all activities required by the approved activity based schedule have been accepted for closure by the RV team and successfully passed the INTEC Facility Authority, prepare the readiness verification final report.
- 4.5.1.1 Compile the results of the individual team members.
- 4.5.1.2 Document any differences, if any, between the verification plan and the verification performed.
- 4.5.1.3 Provide a readiness verification conclusion statement and a listing of all pre-start findings that were resolved during the conduct of the RV, *post-start findings* (see def.) and *observations* (see def.).
- 4.5.1.4 Sign and submit the report to the INTEC Facility Authority; Manager, ISFSI Management; and ISFSI Manager.
- 4.5.2 ISFSI Manager: Ensure all pre-start and post-start findings are reviewed for deficiency resolution and tracking per MCP-598, “Corrective Action System.”
- 4.5.3 Transmit the approved activity based schedule, RV plan of action, and RV final report to the Records Center in accordance with PLN-1243, “NRC Records Management Plan.”

## 5. RECORDS

Activity-Based Schedule

RV Plan of Action

RV Final Report

**NOTE:** *The Records Schedule Matrix, located on the intranet at [http://edms.inel.gov/docs/matrix/mtx\\_memu.html](http://edms.inel.gov/docs/matrix/mtx_memu.html), and the applicable facility, organization, program, or project records management plan and record types list provide current information on uniform file codes, disposition authorities, and retention periods for these records.*

## 6. DEFINITIONS

*Observations.* An item that is noteworthy or of concern to the RV Team. Observations are not deficiencies with the review criteria and may be addressed at the discretion of Management.

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*Pre-Start Findings.* A finding that must be corrected prior to allowing unrestricted operation of an activity. Such findings must demonstrably impact the capability of the operation to be performed safely and in compliance with the applicable requirements as determined by the RV Team Leader. Management and process efficiency findings should normally be classified as post-start findings.

*Post-Start Findings.* A finding that should be corrected as soon as practical but is not required to be corrected prior to unrestricted operation.

## 7. APPENDIXES

Appendix A, Generic (Example) RV Plan of Action Guide

Appendix B, Procedure Basis

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**Appendix A****Generic (Example) RV Plan of Action Guide**

**NOTE 1:** *Each activity identified must have a completion verification signature. If the activity is being completed/verified by other than the person listed, then indicate name of verifier and obtain signature from verifier when the activity is complete. Supporting documentation that demonstrates closure of the activity will be assembled in evidence files.*

**NOTE 2:** *The generic criteria sections of this POA Guide should be used, as applicable, to develop specific criteria for the defined scope of work (activity). Additional criteria should be developed as needed to plan for facilities or start-ups with additional requirements. Criteria may be obtained from the associated requirements documents or implementing documents.*

1. Facility safety documentation that describes the “safety envelope” of the activity is in place and has been implemented.
  - 1.1 Systems, Structures, and Components (SSCs) have been classified, as appropriate.
  - 1.2 The safety documentation characterizes the hazards/risks associated with the activity and should identify preventive and mitigating measures to protect the workers, public, and the environment from these hazards/risks.
  - 1.3 Facility safety documents are current, approved, and properly controlled.
  - 1.4 Criticality safety requirements are current, approved, and properly controlled.
  - 1.5 Facility safety and criticality safety requirements have been incorporated into applicable procedures and documents.
  - 1.6 Unreviewed Safety Questions (USQs or 72.48 evaluations) related to the activity are resolved prior to conducting the activity.
  - 1.7 Facility Hazards List has been updated to reflect introduced/removed hazards.
2. The selection, training, and qualification for operations, maintenance, operations support personnel, and technical staff have been established, documented, and implemented.
  - 2.1 The training and qualification program encompasses the range of duties and activities to be performed.
  - 2.2 Personnel have been trained on the facility/activity safety documentation.
  - 2.3 Job categories and resources required for activity performance has been identified.

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- 2.4 Personnel have completed training on the latest revision of procedures required for activity performance.
- 2.5 The level of knowledge of managers, operations, operations support personnel and technical staff is adequate based on examinations/simulations/evaluations/drills, etc. and selected interviews, as applicable.
- 2.6 Modifications to the facility have been reviewed for potential impacts on training. Training has been performed to incorporate all aspects of these changes.
- 3. Resources are effectively allocated to address ESH&Q, programmatic, and operational considerations.
  - 3.1 There are sufficient numbers of trained/qualified personnel to conduct and support operations.
  - 3.2 Adequate facilities and equipment are available to ensure operational support services (e.g., operations, training, maintenance, waste management, environmental protection, industrial safety and hygiene, radiological protection, quality assurance, criticality safety, and engineering) are adequate for operations.
- 4. Administrative and engineering controls to prevent and mitigate hazards are tailored to the work being performed and associated hazards.
  - 4.1 There are adequate and correct procedures and/or work control documents for operating the activity systems and these procedures are current, approved, and properly controlled.
  - 4.2 Job Safety Analyses have been performed in accordance with procedures such as MCP-3562, “Hazard Identification Analysis and Control of Operational Activities,” and the controls to address the hazards implemented into the applicable procedures.
  - 4.3 Health and Safety walk-downs have been completed in the operating areas required to support the activity and deficiencies have been resolved.
  - 4.4 An adequate startup or restart program has been developed to confirm operability of equipment, viability of procedures and documents, and performance and knowledge of operators. Dry runs, if required have been successfully performed.
  - 4.5 The formality and discipline of operations is adequate to conduct work safely and programs are in place to maintain this Conduct of Operations posture.
  - 4.6 Radiological Work Permits and associated personnel protective equipment are in place to support the activity.

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- 4.7 Environmental regulatory and permit requirements have been reviewed to ensure compliance for the activity.
5. Equipment (systems and components) required for activity performance has been identified, meets the design criteria for the activity, and a system is in place to maintain control over the design.
  - 5.1 Configuration control has been maintained on modifications to equipment.
  - 5.2 Required calibrations and preventive maintenance on equipment have been identified and verified to be complete in accordance with the required periodicity.
  - 5.3 Required engineering reviews of preventive (PM) and predictive maintenance have been performed to determine if changes are needed to required periodicity and that current PMs are adequate.
  - 5.4 Equipment has been verified operational.
  - 5.5 The material condition of support equipment will support the safe conduct of operations.
  - 5.6 Requirements from vendor technical manuals and data have been incorporated into activity documents.
  - 5.7 Spare parts inventory for activity and support equipment is adequate for activity performance.
  - 5.8 Hoisting and rigging equipment required for the activity has been tested/calibrated and lifts required have been classified, reviewed, and approved.
6. The roles/responsibilities and the division of these roles/responsibilities for the scope of work have been clearly defined.
  - 6.1 The operating organization(s) roles and responsibilities have been clearly defined, understood, and are effectively implemented with line management responsibility for control of safety.
  - 6.2 Functions, assignments, responsibilities, and reporting relationships between the operating organization and support organizations are clearly defined, understood, and effectively implemented.

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7. A feedback and improvement process has been established to identify, evaluate, and resolve deficiencies and recommendations made by self-assessments, oversight groups, review teams, etc.
  - 7.1 There are no open ICARE corrective actions that impact the activity that must be closed prior to commencement of the activity. If these corrective actions exist, they should be identified as pre-start findings.
  - 7.2 A review of Lessons Learned from similar activities has been conducted.
8. Procurement Quality has been addressed.
  - 8.1 A review for counterfeit parts has been conducted.
  - 8.2 The procurement quality levels are properly derived from approved safety categories.
  - 8.3 The supplier(s) are on the approved supplier list for the equipment.
  - 8.4 The vendor data was reviewed and found to be complete.
  - 8.5 The receiving inspection was completed and the plan acceptable and signed off.
  - 8.6 Non-conformance Reports are addressed.
9. Other criteria deemed necessary by the Manager, ISFSI Management, ISFSI Manager, or RV Team Leader.

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**Appendix B**

**Procedure Basis**

Step	Basis	Source	Citation
Entire procedure	Written procedures shall be established, implemented, and maintained for administrative controls.	TS 5.4.1.a	
4.1.3	The need for readiness reviews shall be identified by Affected Organization management for major scheduled or planned work to ensure program objectives are met.	QARD 2.2.8	
4.3.3	Where needed, readiness reviews shall be conducted for the planned scope of work to ensure that objective evidence exists demonstrating that:  Work prerequisites have been satisfied  Personnel have been suitably trained and qualified  Detailed implementing documents and management controls are available and approved.	QARD 2.2.8	