

No.: Y15-190

Title: Readiness Manual

Vol. I, Chapter 9.0, Level I Readiness Assessment

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This chapter provides instructions for preparing the Plan of Action (POA), completing the UCN-21051, Level I Readiness Assessment Checklist, and performing Level I Readiness Assessments (RAs) at BWXT Y-12.

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PURPOSE

This chapter provides instructions for preparing the Plan of Action (POA), completing the UCN-21051, *Level I Readiness Assessment Checklist*, and performing Level I Readiness Assessments (RAs) at BWXT Y-12.

APPLIES TO

This chapter applies only when the Readiness Applicability and Review Level Determination process as described in Volume I, Chapter 1, Section D requires that a Level I RA be performed. This Chapter does not apply to other levels of RAs.

OTHER DOCUMENTS NEEDED

- UCN-21048, *Finding Categorization -- Pre/Post-Start Determination*
- UCN-21051, *Level I Readiness Assessment Checklist*
- UCN-21061, *Significance Determination Worksheet*
- UCN-21698, *Operational Readiness Evaluation Worksheet*
- Y15-101, *Manual for the Management of Records and Controlled Documents*

REFERENCES

- Y15-001, *Grading Criteria for Y-12 Facilities and Systems*
- Y15-009, *Criteria for Application of the Y-12 Configuration Management Program*
- Y15-187, *Integrated Safety and Change Control Process*
- Y15-232, *Technical Procedure Process*
- Y15-312, *Issues Management*
- Y15-331, *Lessons Learned Program*
- Y17-007INS, *Transitioning Technical Documents to Operations*
- Y17-011, *Startup Testing Program Manual*
- Y71-930, *Environmental Aspect/Impact Identification and Significance Determination*
- Y73-045, *Job Hazard Analysis Manual*
- Y73-115, *BWXT Y-12 Hoisting and Rigging Procedure*
- Y74-802, *Safety Basis Documents for Nuclear, PSM/RMP, and Chemically Hazardous Facilities*
- Y74-809, *Unreviewed Safety Question Determinations*
- Y75-122, *Radiological Work Permit*
- Y80-101PD, *Software Management Program Description*
- Y90-027, *Conduct of Training Manual*

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WHAT TO DO

A. Plan of Action (POA) Development

Responsible Manager

1. Ensure the Readiness Assurance Manager has assigned a Readiness Leader.

Readiness Assurance Manager

2. Assign a Readiness Leader.

Readiness Leader

3. Ensure the SNR is updated in accordance with Vol. I, Chapter 4.0, *Startup Notification Report (SNR)*,
4. Ensure the *UCN-21051, Level I Readiness Assessment Checklist*, form is initially filled out early in the startup or restart by performing the following:
 - a. Address each *UCN-21051, Level I Readiness Assessment Checklist*, item.
 - b. IF the item is applicable to the activity being started or restarted, THEN mark the "YES" box and summarize the actions that must be completed prior to initiating the review in the applicable "BASIS" section.
 - c. IF the item is not applicable to the startup or restart, THEN mark the "N/A" box and provide in the "BASIS" section the justification as to why the checklist item is not applicable.
5. Draft a POA utilizing the guidance in Appendix 9-A, Level I RA Plan-of-Action Development Guide and Appendix 9-B, Checklist Item Review Approach Document.

UCN-21051, Level I Readiness Assessment Checklist, serves as the Core Requirements for development of the Level I RA Plan-of-Action.

Justification for the exclusion of a Checklist Item requires written basis for excluding the item, a discussion is expected.

Prerequisites, when completed, are expected to bring the startup or restart into a state of operational readiness. Therefore, prerequisites must address the entire scope of the startup or restart.

It is a good practice to use prerequisites to delineate specific actions with defined deliverables for different organizations (e.g., operations training, support organization training, etc.). Prerequisites may also include specific DOE or management issues (e.g., the completion of practice sessions. etc.).

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A. Plan of Action (POA) Development (cont.)

Readiness Leader

6. Define the prerequisites for readiness by performing the following:
 - Address each applicable item on the UCN-21051, Level I Readiness Assessment Checklist.
 - Identify tasks that must be completed to meet each checklist item prior to initiating the review. This may expand upon the information in the checklist basis statement.
 - Identify any additional prerequisites that may be established by Operations Management or DOE.
7. Ensure the prerequisite statement provides measurable evidence that the prerequisite has been met and that it provides the closure requirement.

Appendix 9-B contains review approach statements that can also aid in the development of the prerequisites.
8. Ensure the prerequisite statements provide for measurable evidence that the prerequisite has been met and provides the closure requirement.
9. Ensure the appropriate Startup/Restart (a.k.a. Authorization) Authority is identified in the POA as indicated in the DOE approved Startup Notification Report (SNR).
10. Work with the Responsible Manager and the Readiness Assurance Manager to ensure the Independent Reviewer/RA Team Leader for the RA is identified in the POA, is qualified and will NOT review work for which he or she has been or is directly responsible.

The Independent Reviewer/Review Team Leader is an individual with the necessary qualifications for managing and conducting the RA. The basis of the qualifications includes:

- Technical familiarity with the activities and functional areas being reviewed.
- Previous performance-based review experience or training.
- Demonstrated leadership and managerial skills.
- Operational Readiness Review experience or formal training.

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A. Plan of Action (POA) Development (cont.)

Readiness Leader

11. Select the review approach statements from Appendix 9-B for each of the UCN-21051, *Level I Readiness Assessment Checklist*, items marked "YES."
 - a. IF the Independent Reviewer/RA Team Leader is available, THEN work with that individual to tailor the review approach statements to the specific startup or restart as needed.

B. Plan of Action Review and Approval

Readiness Leader

1. Submit POA to the Responsible Manager for Concurrence.

Responsible Manager

2. Review and approve the POA or provide comments to the Readiness Leader.
3. WHEN approved AND IF applicable THEN forward the POA to the Production Manager for review and approval.

Production Manager

4. WHEN applicable THEN Review and approve the POA.
5. WHEN applicable THEN submit the approved POA to the Startup/Restart Authority for review and approval.

NOTE The BWXT Y-12 Division Manager responsible for the facility in which the startup or restart is to occur is typically the Startup/Restart Authority, however, if DOE is the Startup/Restart Authority then they must approve the POA. Otherwise DOE must receive a copy of the POA for their information.

Startup/Restart Authority

6. Review and approve the POA and return the POA to the Readiness Leader.

The original version of the UCN-21051, *Level I Readiness Assessment Checklist*, form may be retained for use during the declaration of readiness, review, and authorization process and a copy placed in the POA.

Readiness Leader

7. Ensure the POA is distributed to the Responsible Manager, Readiness Assurance Manager, Production Manager (when applicable), Independent Reviewer/RA Team Leader, DOE, and provide the original to the DMC for Organization responsible for the FACILITY in which the startup or restart is occurring.

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C. Developing Readiness Files

Readiness Leader

1. Establish a readiness evidence file, and maintain the file throughout the operational readiness preparation process.

The readiness evidence file should be identified with a numbering scheme and file locations for the evaluations performed in their organization that aligns with the Level I Readiness Checklist items. This is best accomplished through an evidence matrix. Since not all the documents listed in this Section are applicable to every startup or restart, the Readiness Leader must ensure the appropriate documents are included. Maintenance of the readiness evidence files ensures they are kept current as operational readiness preparations progress.

It is understood that large bodies of evidence may not be practical to duplicate. In those instances, the readiness evidence file and evidence matrix should point to the permanent storage location and the contact for review or retrieval.

2. Ensure the appropriate documents are added to the readiness evidence file or are available in a specified location when the documents are approved.

Examples of documents that could be needed include:

- Change Package(s)
- Design drawings or Process System Diagrams
- Job Hazard Identification/Hazard Identification Planning
- Automated Job Hazard Analysis
- Change evaluation forms
- Approved USQDs
- Lessons Learned and associated actions taken
- Plan of Action (POA)
- Documentation of the evaluation of any Scope Changes
- ES&H Walkdown Report
- Engineering Technical Basis
- Grading Worksheet Package(s)
- Structures, Systems, and Equipment List/Master Equipment Lists
- Criticality Safety Implementation Plan(s)
- Training Records
- Personnel Qualification Records
- Personnel Certification evidence
- Safety Analysis Report (SAR)/ Technical Safety Requirements (TSR)
- Fire Hazard Analysis (FHA)
- Facility Security Plan including evaluation of impacts to the Plan
- Criticality Safety Evaluation/Approval/Requirement (CSE/CSA/CSR)

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D. Defining and Controlling Changes

Readiness Leader/Project Manager

NOTE: During the course of achieving operational readiness, changes in scope can and may occur.

1. IF a change in scope occurs during the course of achieving operational readiness, THEN perform the following:
 - a. Evaluate impacts to the Review Level Determination criteria and determine required actions.
 - b. Notify the Responsible Manager if the startup or restart scope changes.
 - c. Document the evaluation of the change and required actions and place in the readiness evidence file.
 - d. Evaluate impacts to the POA and notify the Responsible Manager and Startup/Restart Authority if changes are required.
2. Update the schedule and scope, as required.
3. IF the change requires a change in the previously approved Review Level Determination, THEN revise the Readiness Applicability and Review Level Determination in accordance with Vol. I, Chapter 1 and submit the update to the Readiness Assurance Manager.

Readiness Assurance Manager

4. Process the SNR change and submit to DOE for approval.

The RA may not begin until DOE has approved the Review Level proposed by BWXT Y-12 and submitted in the SNR.

E. Ensuring Readiness

Readiness Leader

1. Ensure the UCN-21051, *Level I Readiness Assessment Checklist*, criteria have been met and the operation is ready for operational authorization.

Additional guidance and templates are available on the Readiness Assurance (RA) web site, <https://home1.y12.doe.gov/ready/>.

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E. Ensuring Readiness (cont.)

Readiness Leader

2. Sign and date the UCN-21051, *Level I Readiness Assessment Checklist*, form indicating that each applicable checklist item has been completed and that each of the prerequisites has been met.

It is important to ensure the startup or restart is truly ready and that were it not for the Level I RA, operations could be safely and compliantly started. To gain this level of confidence that expectations have been met, the Responsible Manager may choose to have a Readiness Assist Team (RAT) or Management Self-Assessment (MSA) conducted to evaluate the adequacy of actions taken. Past experience has indicated that conducting a thorough RAT/MSA is an excellent tool for ensuring that operational readiness expectations have been met.

Responsible Manager

3. Ensure UCN-21051, *Level I Readiness Assessment Checklist*, and associated evidence file is reviewed to confirm that each item is complete and operational readiness has been attained with sufficient confidence to authorize the start of the Level I RA.
4. Sign and date the UCN-21051, *Level I Readiness Assessment Checklist*, indicating the certification of readiness and approval to start the Level I RA.

Production Manager

5. IF there is a Production Manager associated with the activity being started or restarted, THEN the Production Manager initials the UCN-21051, *Level I Readiness Assessment Checklist*, form next to the Responsible Manager's signature signifying their concurrence with the certification of readiness.

Responsible Manager

6. Forward the signed UCN-21051, *Level I Readiness Assessment Checklist*, to the Independent Reviewer/Team Leader. This serves as the Certification of Readiness Letter.

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F. Performing the Level I Readiness Assessment

Review Team Leader

NOTE 1: The POA and Level I RA Checklist, serve as the Implementation Plan (IP) for the Level I RA. The preparation of a standalone IP is not required, but may be appropriate for more complex activities undergoing a Level I RA. Y15-190, Vol. II, Chapter 5, *Developing an Implementation Plan and Conduct of Y-12 RA/ORR*, contains additional guidance in preparing an IP if one is desired. The decision to write an IP is up to the Review Team Leader.

NOTE 2: The RA cannot be started until the SNR update that submitted this activity for approval has been approved by DOE.

1. Conduct the RA using as guidance the information in Volume II, Chapter 5, *Developing an Implementation Plan and Conduct of Y-12 RA/ORR*, relating to the conduct of a RA.
2. Ensure that each of the applicable UCN-21051, *Level I Readiness Assessment Checklist*, items has been evaluated.
3. Ensure the "basis" for each UCN-21051, *Level I Readiness Assessment Checklist*, item(s) marked "N/A" is evaluated as part of the RA.

A formal report is not required if there are no Pre-Start or Post-Start findings identified by the review. In the absence of any findings (including those resolved during the review), the preparation of a report is optional, but may be appropriate for the more complex startup or restarts. If a report is needed, guidance on its preparation is provided in Appendix 9-C, *Level I Readiness Assessment Report Guide*. Y15-190, Vol. II, Chapter 5, *Developing an Implementation Plan and Conduct of Y-12 RA/ORR*, contains guidance on preparing review reports.

4. When the Level I RA has been completed, sign and date the Level I Readiness Assessment Checklist indicating completion of the review.
5. IF there are any Pre-Start or Post-Start findings resulting from the review, THEN:
 - a. Prepare a formal report documenting the results of the review. See Appendix 9-C for guidance;
 - b. Ensure that findings are categorized. UCN-21048 should be used as guidance, but is not required to be retained;
 - c. Complete UCN-21061, *Significance Determination Worksheet*, in accordance with Y15-312, *Issues Management*.
 - d. Document the composition of the review team in an appendix to the report;
 - e. Ensure the report is reviewed for factual accuracy;

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F. Performing the Level I Readiness Assessment (cont.)

Review Team Leader

- f. Obtain the signatures of the review team (if applicable);
- g. Distribute the report ensuring the Responsible Manager, Production Manager (if applicable), Readiness Assurance Manager, Startup/Restart Authority, DOE receive copies, AND the original is provided to the DMC for the Organization responsible for the facility in which the startup or restart is occurring; and
- h. Ensure the findings are provided to the Responsible Manager and to the Performance Assurance organization (along with the UCN-21061 forms) for processing in accordance with Y15-312, *Issues Management*.

Responsible Manager

6. IF there are any Pre-Start or Post-Start findings resulting from the review THEN ensure that:
 - a. Findings are entered into the Y-12 CAPS database;
 - b. Pre-Start Findings are fully resolved and closed in CAPs; and
 - c. Post-Start Findings have an approved corrective action plan and are on schedule for closure.
7. Sign and date the UCN-21051, *Level I Readiness Assessment Checklist*, indicating identified Pre-Start issues have been resolved and action plans are current for Post-Start issues.
8. Ensure other applicable managers (e.g., Production Manager, Physical Security Manager, NMC&A Manager) sign and date in the Concurrence signature section of the Level I Readiness Assessment Checklist.
9. Submit the approved UCN-21051, *Level I Readiness Assessment Checklist*, to the Startup/Restart Authority for review and approval.

For Level I RAs the Startup/Restart Authority is typically the Division Manager responsible for the Facility in which the particular startup or restart is being conducted.

Startup/Restart Authority

10. Review and approve the UCN-21051, *Level I Readiness Assessment Checklist*, authorizing the startup or restart of the system, process, or operation and return the Level I readiness Assessment checklist to the Responsible Manager.

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F. Performing the Level I Readiness Assessment (cont.)

Responsible Manager

11. Ensure the DOE Facility Representative is notified of the intent to start the operation.
12. Ensure the individual that contacted the DOE Facility Representative signs and dates the UCN-21051, *Level I Readiness Assessment Checklist*.
13. Provide the signed UCN-21051, *Level I Readiness Assessment Checklist*, form to the Readiness Leader

NOTE: While not required by DOE Order 425.1, it is a recommended practice to capture and communicate significant **opportunities for improvement** discovered during the execution of the readiness process.

14. Document Lessons Learned in the Y-12 *Lessons Learned Program* in accordance with Y15-331, Lessons Learned Program, as appropriate.

Readiness Leader

15. Ensure that copies of the completed UCN-21051, *Level I Readiness Assessment Checklist*, form are distributed to the Responsible Manager, Production Manager (if applicable), and Readiness Assurance Manager, AND provide the original to the DMC for the Organization responsible for the facility in which the startup or restart is occurring.
16. Ensure a post RA/ORR operational effectiveness evaluation is performed within approximately 1 month of startup or restart authorization using form UCN-21698, *Operational Readiness Evaluation Worksheet*.

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RECORDS

Records generated as a result of this procedure are maintained in accordance with Y15-101, *Manual for the Management of Records and Controlled Documents* and established retention and disposition schedules in the Approved Comprehensive Records Schedule at <https://home1.y12.doe.gov/scripts/eicms/prod/SMARTMain.cfm>.

Owner/DMC

The Records generated as a result of this Chapter include:

- UCN-21051, *Level I Readiness Assessment Checklist*
- UCN-21062, *Significance Determination Worksheet* (when required)
- UCN-21698, *Operational Readiness Evaluation Worksheet*
- Plan-of-Action
- Review Report (when required).

The above records are to be maintained by the applicable DMC for the Organization responsible for the facility in which the startup or restart is occurring. A hard copy and electronic copy of this document must also be provided to the Readiness Assurance Manager.

SOURCE DOCUMENTS

- Standards/Requirements Identification Document (S/RID) Sub-element 01.07, *Operational Readiness Reviews and Readiness Assessments*:
 - RUID 10914 - RUID 10921 - RUID 10923 - RUID 10925 - RUID 11600
 - RUID 10920 - RUID 10922 - RUID 10924 - RUID 11599 - RUID 11601
- YSO-CRD-03-01, *Start-Up and Restart of Facilities at Y-12*

APPENDIXES

- A. Level I RA Plan-of-Action Development Guide
- B. Checklist Item Review Approach Document
- C. Level I Readiness Assessment Report Guide

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APPENDIX 9-A
Level I RA Plan-of-Action Development Guide
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Cover Page

- Document Number
- Title
- Activity/Task Identification
- Date
- Preparer

Approval Page

- Preparer/Readiness Leader
- Responsible Manager
- Production Manager
- Production Facilities Manager (*if required*)
- Senior Manager

I. Activity/Task Description

The information in Section I should be available from what was developed for the activity/task description. Do not create something new. Use the information that was already developed.

- Facility
 - Building Number
 - Facility Categorization
 - Authorization Basis
 - Location of Activity/Task within building
- Activity/Task
 - A detailed description of Activity/Task
 - Include a discussion of any activities/tasks that will occur which are already authorized.
- Scope of Activity/Task
 - Physical/Geographical Boundaries
 - Personnel
 - Documentation affected by the project/change
 - Hazards and Controls
 - Major Equipment

II. Scope of Readiness Assessment

- Must designate the reviewer/review team leader
- Must designate the authorization authority and be consistent with the approved SNR

III. Prerequisites

The information in Section III should be developed to ensure that UCN-21051, Level I Readiness Assessment Checklist, requirements can be met. The prerequisites may include issues of concern to line management or DOE beyond those requirements from the UCN-21051, Level I Readiness Assessment Checklist.

- Linked to applicable Checklist Items
- Must include what is required for closure of Item(s).

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IV. Checklist Non-Applicable Items

- Must include discussion of why Item is non-applicable.

V. Checklist Item Review Approach Criteria

The selected Review Approach Criteria is based on the applicable checklist items. Select the Review Approach Criteria from Appendix 9B and copy them here. Coordinate with the Review Team Leader to ensure the review approach is appropriate for the Assessment.

Appendix

- *UCN-21051, Level I Readiness Assessment Checklist*, with initial evaluation of applicability completed and documented.

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APPENDIX 9-B
Checklist Item Review Approach Document
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Checklist Item 1 – The startup/restart required a change to the Safety Basis. Safety Basis (SB) documentation has been updated, approved, and properly controlled.

Approach:

Record Review: Review the Safety Basis documentation (SAR, TSR, Document Change Notice (DCN), Hazards Evaluation Study (HES), Accident Analysis, and Authorization Agreement) impacted by this activity to determine if changes have been made to reflect the project. Verify the Safety Basis (SB) documentation is properly approved and changes to the documentation are in accordance with Y74-802, *Safety Basis Documents for Nuclear, PSM/RMP, and Chemically Hazardous Facilities*. Confirm that SB documents are implemented in accordance with the applicable requirements in Y14-190, *Safety Basis Implementation Plans and Implementation Validation Reviews*.

Checklist Item 2 – The startup/restart required Change Evaluations/USQD process/USQDs to support facility operation. This is required for physical as well as procedural changes.

Approach:

Record Review: Review USQDs in the evidence files. Determine if the USQDs cover the scope of the project and if they were performed in accordance with Y74-809, *Unreviewed Safety Question Determinations*.

Checklist Item 3 – If the startup/restart required changes to the Safety Basis (question 1 is “Yes”), personnel have been trained to the new Safety Basis requirements/controls. Descriptive changes to Chapter 2 of the DSA do not require a “Yes” answer.

Approach:

Interviews: Through formal or Ad Hoc interviews determine if personnel directly involved with the operation (i.e., operators, supervisors, etc.) and facility operations support personnel (e.g., STA, Shift Manager, Operations Manager) are aware of safety basis conditions that affect the project/operation or safety basis requirements imposed on the project/operation.

Checklist Item 4 – The startup/restart required a change to the CSA(s)/CSE(s)/CSR(s) applicable in the facility. The CSA(s)/CSE(s)/CSR(s) are updated, approved, and properly controlled.

Approach:

Record Review: Review the CSA(s)/CSE(s)/CSR(s) for this activity to determine if they adequately reflect the operations, are approved and properly controlled.

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Checklist Item 5 – If the startup/restart required changes to the CSA(s)/CSE(s)/CSR(s) (question 4 is “Yes”), personnel have been trained to the new CSA(s)/CSE(s)/CSR(s) limits and conditions.

Approach:

Record Review: Review the implementation plan for the CSA(s)/CSE(s)/CSR(s) for this activity to determine if training was performed for the changes.

Interviews: Interview project personnel and Criticality Safety Officer as needed to evaluate their understanding of the applicable CSA/CSE/CSR requirements.

Checklist Item 6 – Procedures and work instructions for the startup/restart are current, effective, and properly controlled in accordance with Y15-232, *Technical Procedure Process*.

Approach:

Record Review: Review the operating procedures along with associated USQDs, AJHAs, CSEs, CSAs, and CSRs against the requirements of Y15-232, *Technical Procedure Process*.

Checklist Item 7 – Personnel required for the startup/restart performance have completed training on the latest revision of procedures required for activity performance.

Approach:

Record Review: Review evidence files for documentation of training as required by Training Impact Assessments for the operating procedures.

Interviews: Interview the personnel assigned to the positions identified in this document to ensure they possess an adequate understanding of roles, responsibilities, procedures, equipment use and operation, awareness of safety, health and environmental protection, response to abnormal situations, and adherence to the principles of Conduct of Operations required to support operations.

Shift Performance: None

Checklist Item 8 – Personnel have established proficiency in the operation(s) to be conducted.

Approach:

Record Review: Review the evidence files for documentation of personnel proficiency, [e.g., completed Performance Document Checklist (PDCs), Operations Managers determination of proficiency, etc.]

Shift Performance: Equipment startup, operation and shutdown are typically demonstrated. To the maximum extent practical the performance demonstrations of operation will be performed without simulation except for the material used. Observe surrogate performance demonstrations of the operating procedures as applicable.

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Checklist Item 9 – A job hazard analysis has been completed for the startup/restart and necessary controls implemented in accordance with Y73-045, *Job Hazard Analysis Manual*.

Approach:

Record Review: Review the operating procedures along with associated AJHAs to ensure the JHA is in accordance with Y73-045, *Job Hazard Analysis Manual*.

Interviews: Interview operations personnel to determine if they participated in the development of the JHA.

Checklist Item 10 – Critical lifts required for startup/restart performance have been reviewed and approved by the Hoisting and Rigging Committee or designee, as required.

Approach:

Record Review: Review the operating procedures along with associated JHAs and the process description for defined critical lifts. Verify the defined critical lifts have been approved by the Hoisting and Rigging Committee as required by Y73-115, *BWXT Hoisting and Rigging Procedure*.

Checklist Item 11 – Permits/plans (e.g., RWP, critical lifts, etc.) required for startup/restart are approved and implemented.

Approach:

Record Review: Review the evidence files for RWPs associated with this project and verify they were approved and implemented in accordance with Y75-122, *Radiological Work Permit*. Review the evidence files for other permits associated with this project and verify they were approved and implemented in accordance with governing procedures.

Checklist Item 12 – Equipment/tooling required for operation has been identified, verified operational, and calibrated/certified as applicable.

Approach:

Record Review: Review acceptance testing of installed equipment and associated support systems and components including post-work testing results from Work Orders (WO) associated with this project. Where applicable confirm that testing was conducted in accordance with Y17-011, *Startup Testing Program Manual*. Verify pre-start WOs associated with the project are closed. Review the list of items requiring field calibration, inspection or preventive maintenance. Review SAP for documentation the items from the list are tracked and are current. Review the application references to ensure that they are appropriate for the specified equipment and intended use. Verify required tooling is available.

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Checklist Item 13 – Change Request Packages for the startup/restart have been reviewed and post-installation testing has been completed and the packages “Approved to Return to Service” or “Closed” per Y15-187, *Integrated Safety and Change Control Process*.

Approach:

Record Review: Review Change Request packages associated with the startup/restart, ensure the packages have been properly filled out, reviewed and completed to “Return to Service” or closed. Review operational testing of installed equipment and associated support systems and components in conjunction with Checklist Item 12 above.

Checklist Item 14 – Maintenance records have been reviewed. A maintenance applicability review (N3) has been performed. Open WOs have been reviewed for pre-start or post-start applicability. All pre-start maintenance work is complete and associated WOs are closed.

Approach:

Record Review: Review WOs associated with this activity in conjunction with Checklist Item 12 above. Verify that pre-start maintenance work is complete. Verify that a maintenance applicability review (N3) has been performed and the required work instructions and PMs have been entered in SAP.

Checklist Item 15 – Affected Technical Basis Documents have been developed or revised and are listed on an effective TBIS.

Approach:

Record Review: Review the TBIS against issued and approved documents.

Shift Performance: Walk-down selected as-constructed drawings to verify the controlled document is consistent with the physical configuration.

Checklist Item 16 – Equipment testing is complete and engineering/maintenance have turned the equipment over to operations. For engineering construction projects, the transition to operations will be done following completion of successful pre-operational functional testing in accordance with Y17-011, *Startup Testing Program Manual*.

Approach:

Record Review: Equipment testing is reviewed in Checklist item 12 above. Review the evidence file to verify the equipment has been formally turned over to operations.

Checklist Item 17 – Personal protective equipment (PPE) required for this startup/restart is available in acceptable condition and sufficient quantity to support operations.

Approach:

Record Review: Review evidence files for verification of available PPE.

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Checklist Item 18 – Supporting utilities and support services necessary for the operation have reported operational readiness by their responsible managers.

Approach:

Record Review: Review evidence files for utilities and support services, including Material Management, report of operational readiness to support start-up of operations.

Checklist Item 19 – Grading Worksheet Package has been completed in accordance with Y15-009, *Criteria for Application of the Y-12 Configuration Management Program*, and Y15-001, *Grading Criteria for Y-12 Facilities and Systems*, as applicable.

Approach:

Record Review: Review evidence files for grading worksheets for project SSCs. Verify the grading worksheets are completed in accordance with Y15-001, *Grading Criteria for Y-12 Facilities and Systems*, and Y15-009, *Criteria for Application of the Y-12 Configuration Management Program*.

Checklist Item 20 – System limits, process limits, or hazardous material limits for the operation have been identified and implemented in appropriate procedures, work instructions, etc.

Approach:

Record Review: Review operating procedures and inventory procedures for evidence that system limits, process limits, or hazardous material limits have been identified and implemented.

Checklist Item 21 – Per Y71-930, *Environmental Aspect/Impact Identification and Significance Determination*, environmental aspects and impacts have been identified, evaluated, and where required controls have been established and integrated into operating procedures to eliminate, prevent, or minimize environmental impacts. Environmental permit requirements and exemptions have been reviewed to ensure compliance.

Approach:

Record Review: Review the evidence for a NEPA determination. If ventilation systems are affected, determine if permit drawings have been updated and clean air program organization has agreed that permit changes are not needed. Determine if waste profiles have been developed for hazardous waste produced by the project, if applicable and a waste disposition path exists.

Checklist Item 22 – Safeguards and security impacts have been identified and addressed.

Approach:

Record Review: Review evidence to assure the Physical Security plan, NMC&A plan, Material Surveillance plan, and/or Cyber Security plan have been updated, if required, and changes have been evaluated for safeguards and security impacts.

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Checklist Item 23 – Lessons Learned have been evaluated for applicability and where applicable to the Startup/restart actions have been taken to address the Lesson Learned.

Approach:

Record Review: Review evidence files for proof that Lessons Learned database was reviewed for applicable Lessons Learned and where applicable Lessons Learned were identified that they were reviewed against the project/task. If issues were identified verify that actions were taken appropriate to the startup/restart.

Interviews: Interview project personnel to evaluate the effectiveness of the Lessons Learned training.

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Level I Readiness Assessment Report Guide
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If a Level I Readiness Assessment report is required or desired it should communicate the issues identified during an RA. The RA Team Leader should ensure the report:

- Provides a clear picture of the results in terms of the processes, systems, and people reviewed.
- Documents the as found condition. The report should document findings even if they are closed during the review period.
- Is clear and easy to understand. The report should include only facts that directly relate to review observations and results.
- Findings are based on specific requirements not met. If a requirement can not be cited then the issue can be documented as an observation.
- Findings are categorized as Pre-Start or Post-Start. UCN-21048, *Finding Categorization Pre/Post-Start Determination*, should be used to guide the evaluation but completed UCN-21048 forms do not need to be retained.
- Includes sufficient information to enable the reviewed organization to check the report for accuracy and to develop and implement appropriate corrective action plans.
- Concise, accurate, and understandable.

The Report should contain a summary of the review activities, the conclusions reached, the basis for those conclusions, and the findings identified as well as the following:

- Identify observations that would not impact startup, restart or shutdown but, if corrected, could lead to excellence.
- Make an unambiguous statement regarding a recommendation to approve the startup or restart.

The following format is a guide that may be used in developing the report. Other formats are acceptable given the information described above is provided:

1. Title Page - A cover and title page that states the subject and date of the review
2. Signature Page- Includes space for team members (if any) to sign, signifying their agreement of the report content and conclusions of the review
3. Table of Contents- Identifies, with page numbers, sections of the report.
4. Executive Summary which may include:
 - ✓ One page summary of review highlights (both positive and negative)
 - ✓ Summary of findings and observations
 - ✓ Overall conclusion

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5. Results of the RA organized by UCN-21051, *Level I Readiness Assessment Checklist*, items.
6. Lessons Learned
7. Appendices may include such items as:
 - ✓ List of team members and qualifications
 - ✓ List of documents reviewed
 - ✓ List of individuals contacted and/or interviewed