Cook Nuclear Plant Restart Plan

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Cook Nuclear Plant Restart Plan

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Introduction and Overview

1.1 Purpose

The Cook Nuclear Plant Restart Plan has two objectives:

A) To describe the activities and management controls that will be implemented to ensure the facility is ready to safely start up and to operate safely, reliably, and efficiently. This includes the identification of actions necessary to achieve this objective and establishment of requirements, directly or by reference, for implementation of the actions.

B) To use the activities being performed for plant restart as the foundation on which to sustain and enhance a strong plant safety culture through the identification, correction, and improvement of plant equipment and programs such that the organization will be positioned for long-term, safe, reliable, and efficient operation.

The Restart Plan represents a comprehensive corrective action plan based on the root cause evaluation of conditions that resulted in plant shutdown. The Restart Plan is also intended to be a living document that provides supplemental administrative controls for restart management.

The Restart Plan is designed to supplement the existing corrective action processes. It is not intended to replace those processes or result in actions that conflict with plant procedures.

1.2 Scope

The Restart Plan addresses the activities listed below directly or by reference to plant procedures. Restart items identified prior to the effective revision date of this plan which are still within the implementation and closure phase shall be processed in accordance with this Restart Plan revision. The scope of this plan defines and addresses the following:

- Restart objectives.
- Management expectations for restart.
- Guidance for communicating management expectations to employees, regulators, and other stakeholders. The central focus of all site activities is safe plant operation.
- Control of the Cook Nuclear Plant Restart Plan.

- Criteria and processes for identifying, evaluating, and implementing restart outage work, and verifying results.

- Directions for defining a clear scope of work that will be completed prior to start-up and the creation and maintenance of an associated restart database and restart schedule.

- Directions for the establishment and implementation of restart strategies.

- Controls for restart management.

- Requirements for restart issue closure and documentation.

- Requirements for plant start-up and power ascension process.

- Controls for post restart actions.

- Guidance for independent review of restart activities.

- Guidance for near-term post restart actions.

- Guidance for post restart long-term actions.

1.3 Roles and Responsibilities

While the line organizations, using existing procedural processes, will perform the actions necessary to start-up the units, supplementary processes, functional teams, and individual functional roles, as described below, have been established to implement the Restart Plan. This additional management structure will support the line organization. The entire organization is responsible for the success of the restart effort.

The roles and responsibilities for the execution of this plan are as follows:

1.3.1 Senior Vice President Nuclear Generation

Responsible for authorizing startup and power ascension and providing senior management oversight of the restart process.

1.3.2 Site Vice President

Overall responsibility for the management and implementation of the Restart Plan to achieve the purpose described in section 1.1. Serves as chairman of the Senior Management Review Team (SMRT).

1.3.3 Restart Project Manager

Responsible for the management and control of restart work activities and coordination of resources to ensure that restart items are scheduled, completed, and closed in accordance with the Restart Plan. The Restart Team Project Management Charter is contained in Attachment G.

1.3.4 Restart Program Manager

Responsible for the development and revision of the Cook Nuclear Plant Restart Plan; for providing leadership in the development and implementation of plant procedures and processes necessary to implement the Restart Plan; for coordination of the development of restart strategies; and for administration of the Restart Database. The Restart Team Program Management Charter is contained in Attachment H.

1.3.5 Outage Manager

Responsible for the day to day management of outage work activities in accordance with the Restart Schedule. Provides timely communication to the Restart Project Manager regarding potential restart items and existing restart items which may impact outage scope or schedule. The Outage Manager is the Chairperson of the Outage Review Board. This function may be delegated to the Operations Work Control Supervisor.

As a member of the Restart Oversight Committee (ROC), the Outage Manager represents the Restart Project Manager and must assure that ROC decisions are provided to the Restart Project Manager in a timely manner to support Restart Schedule and Restart Database updates.

1.3.6 Nuclear Licensing Manager

Responsible for assuring restart item closure documentation is complete and ready for NRC inspection in accordance with PMP 7200. RST.001, "Restart Issue Closure Documentation Package." The Nuclear Licensing Manager is also responsible for communicating such results to the NRC, providing assistance to other plant departments on regulatory issues related to the restart, and establishing expectations and requirements for plant communications with NRC personnel for restart items.

The Nuclear Licensing Manager is also responsible for timely submittal of required information to the NRC and other licensing agencies on a schedule that supports the restart efforts, and must ensure such submittals are accurate.

1.3.7 Director, Performance Assurance

Responsible for the overall direction of the Restart Readiness Verification effort, providing appropriate resources to support the effort, and appointing a Performance Assurance Restart Oversight Manager.

1.3.8 Plant Manager, Directors, Engineering Managers, and Department Superintendents

Responsible for the accurate and comprehensive completion of the restart work, performing assessments of functional area readiness to support unit restart and safe, reliable power operations, implementing necessary corrective actions, and providing affirmation of readiness to the ROC.

The title of Director is a functional title and consists of those individuals who have overall responsibility for an organizational division such as Engineering, Operations or Regulatory Affairs.

The Plant Manager is also responsible for Operations acceptance of restart assessments for system readiness and for oversight activities relative to power ascension.

Directors are also responsible for:

- understanding and endorsing department restart strategies
- overall responsibility for successful implementation of department restart strategies
- providing sufficient authority, resources, and management support to Restart Strategy Owners
- attesting to the overall quality and departmental endorsement of individual strategies by signature approval

1.3.9 System Engineers

Responsible for successful completion of restart work on selected systems, performing assessments of system readiness to support unit restart and safe, reliable power operations, implementing necessary corrective actions, and providing affirmations of readiness.

1.3.10 Restart Strategy Owner (RSO)

The individual responsible for the successful implementation and completion of a restart strategy. The RSO is expected to be the single point of accountability for the actions necessary to successfully implement and close out a restart strategy. Personnel assigned as RSOs will be given sufficient authority, resources, and management support to ensure the restart strategy is adequately implemented and closed out. RSOs are responsible for the development of assigned restart strategies, implementation, and closeout. Restart Strategy Owners are also responsible for:

- Performing a project management function for all activities related to the successful completion of the restart strategy. The RSO may assign another individual to perform day to day project management functions required by the strategy. The RSO, however, is accountable for the successful implementation of the strategy.

- Assuring all restart items associated with their strategies are completed. Assistance may be provided by the Restart Area Accountability Manager (RAAM).

- Assuring restart items are closed in accordance with PMP 7200.RTS.001.

- Understanding all aspects of the strategy and assuring that the strategy thoroughly resolves the issue.

- Updating strategy progress to the Restart Project Manager for the Restart Schedule.

- Working with the assigned Restart Area Accountability Manager, Licensing, Performance Assurance, the Restart Schedule Team, and the Restart Program Team as needed to address restart project requirements.

- Working with those Restart Item Owners who are responsible for specific items contained in the strategy.

- Working with other Restart Strategy Owners to identify and support restart strategy integration and for the completion of those activities required by other Restart Strategy Owners needed to successfully complete their respective strategies.

1.3.11 Restart Item Owner

The individual responsible for the successful resolution and completion of a restart item. The Restart Item Owner is expected to be the single point of accountability for the actions necessary to resolve a restart item. Personnel assigned as Restart Item Owners will be given sufficient authority,

resources, and management support to ensure the restart item is successfully completed and documented as completed.

1.3.12 Nuclear Generation Employees

Responsible for supporting restart activities by focusing on safe operation and continuous improvement. Employees are required by plant procedure requirements, and expected, by management direction, to raise quality concerns in accordance with the corrective action program (PMI 7030, "Corrective Action Program").

Through the use of the corrective action program, potential restart items are brought to management's attention. It is also expected that notification will be made to the Restart Project Manager as quickly as possible when an individual or group recognizes that the accepted schedule for a restart activity will not be met.

1.3.13 Restart Plan Communication Coordinator

Responsible for development of the Communication Plan as described in Section 4.

1.3.14 Performance Assurance Restart Oversight Manager

Responsible for the development of the Restart Readiness Verification Plan and other responsibilities as established in the Restart Readiness Verification Plan.

1.3.15 Restart Area Accountability Manager (RAAM)

RAAMs are assigned by the responsible department director. The RAAM is the single point of accountability between the Restart Project Manager and the department. Responsibilities are:

- Be familiar with all restart strategies and restart items that are the responsibility of their department.
- Be the prime interface for communications between the Restart Project Manager and the department.
- Assist Restart Item Owners and Restart Strategy Owners in the accomplishment of required activities.
- Assist the Restart Project Manager with development and refinement of schedules/work down curves/performance indicators.

- Coordinate schedule status with the Restart Project Manager.
- Assist Restart Strategy Owners and Restart Item Owners in the submittal and closeout of packages to Nuclear Licensing.
- Update and assess current restart workdown curves and performance indicators.
- Coordinate department restart related actions and bringing potential restart items to the attention of the Restart Project Manager and Restart Program Manager.

1.3.16 Senior Management Review Team (SMRT)

Members:
Site Vice President (Chairman)
Vice President Nuclear Engineering
Director Performance Assurance
Director Regulatory Affairs
Plant Manager
*Independent Safety Review Committee Member
**Restart Project Manager
**Restart Program Manager
**AEPNG Legal Counsel

*This member will actively participate as available, and will perform a continuous oversight role. Routine communication with this member may be accomplished through review of meeting minutes, phone conferencing, and follow up interviews with the SMRT members.

**This member will actively participate on a regular basis in an advisory capacity.

The SMRT is responsible for the generation and approval of the criteria for screening work items required for the completion of restart, for approval of 0350 Restart Strategies, and for providing concurrence for restart schedule changes. The SMRT is also responsible for monitoring and oversight of the processes for affirmation and approval of plant and staff readiness for restart.

1.3.17 Restart Oversight Committee (ROC)

Responsible for determining the scope of restart work using consistent standards and criteria approved by the SMRT. The ROC is also responsible for assessing plant readiness to restart and to resume power operations. The ROC charter is provided in attachment B.

1.3.18 System Engineering Review Board (SERB)

This board, internal to Nuclear Engineering, is responsible for assessing the readiness of plant systems and providing recommendations for additional restart scope to the Restart Oversight Committee (ROC). The SERB charter is provided in Attachment A.

1.3.19 Management Review Board (MRB)

Responsible for review of Condition Reports issued on or after August 14, 1998, screening of Condition Reports per Restart Screening Criteria and classifying potential restart items as restart items. A flowchart for this process is contained in Attachment I.

1.3.20 Outage Review Board (ORB)

Responsible for review of Action Requests not classified as required for restart to determine need for inclusion into restart schedule for work during the outage. If the ORB determines an Action Request should be classified as a restart item, a recommendation must be made to the ROC for inclusion as a restart item.

1.3.21 Performance Assurance (PA)

Responsible, under 10 CFR 50, Appendix B, to provide assurance that activities affecting quality are satisfactorily accomplished. In addition, Performance Assurance provides oversight review of activities associated with the Restart Plan and implementing procedures to assure restart program requirements are met. PA responsibilities for restart oversight are detailed in the Restart Readiness Verification Plan.

1.3.22 Independent Safety Review Group (ISRG)

Responsible for the identification and review of key information and issues associated with restart and for providing feedback regarding restart program effectiveness to the Senior Vice President and other management personnel.

1.3.23 Plant Nuclear Safety Review Committee (PNSRC)

The PNSRC provides independent reviews of designated activities associated with the operation of the nuclear plant as detailed in PMP-1040.SES.001. The PNSRC may be requested or choose to review restart strategies, restart closure packages or other restart documents that are not directly required by their charter.

1.3.24 Nuclear Safety Design and Review Committee (NSDRC)

The NSDRC provides independent reviews and audits of designated activities associated with the operation of the nuclear plant as detailed in the NSDRC Manual. The NSDRC may be requested or choose to review restart strategies, restart closure packages or other related restart documents that are not directly required by their charter. The NSDRC shall review restart affirmations and determine overall plant readiness for restart.

2.0 Cook Nuclear Plant Restart Process Overview

The restart process is structured in a logical progression to provide assurance of ensure a safe, successful start-up and safe, reliable, and efficient operation. The following are the primary stages of the restart program:

- Management Expectations
- Communications
- Development, approval, and control of Restart Plan
- Identification of potential restart items
- Criteria for classifying an item as a restart item
- Development, approval, and implementation of restart strategies
- Establishment and tracking restart items
- Restart Management
- Restart items closure/documentation
- Authorization to Restart
- Management of post restart issues
- Independent Verification
- Near Term Post Restart Actions
- Long Term Post Restart Actions

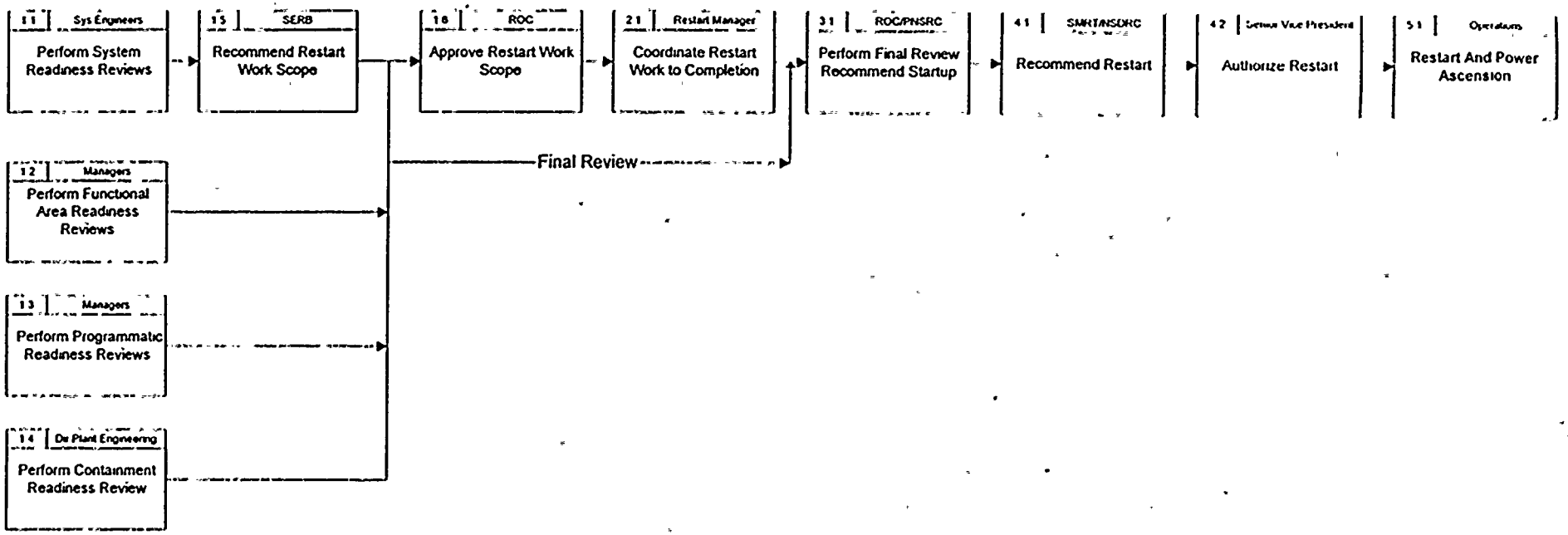
These stages of the Restart Plan encompass the following major activities:

(1) scope determination

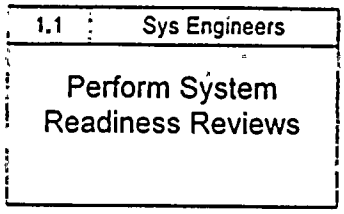
(2) work performance
(3) readiness assessment
(4) start-up authorization
(5) start-up and power ascension

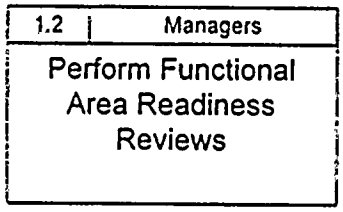
The following is a process map summarizing the activities associated with major restart activities. More detailed information is presented in later sections of this document.

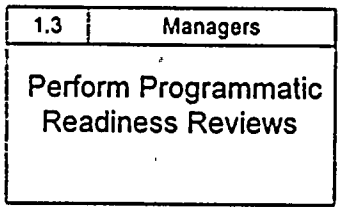
Cook Plant Restart Plan Overview

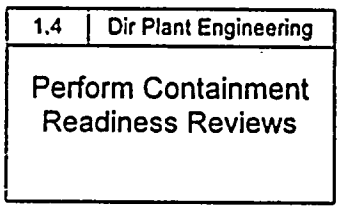


Restart Readiness Assessments





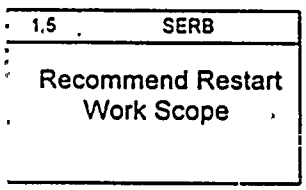




The objective of the restart readiness assessment is to provide assurance that the integrated set of plant equipment, human resources and work programs are capable of supporting safe, reliable, and efficient power operations. The restart readiness assessment will be initiated in parallel with the execution and completion of restart work.

The restart readiness assessment will focus on the following areas:

- plant system readiness
- functional area readiness
- programmatic readiness
- containment readiness



The restart work scope may be increased as a result of the plant system assessments or other ongoing work. The system engineers will recommend the restart work scope to the System Engineer Review Board (SERB).

1.6 ROC Approve Restart Work Scope	All restart scope additions will be approved by the Restart Oversight Committee (ROC). All restart items must have an associated Condition Report or Action Request linked to the restart item and be referenced to a specific restart strategy.
2.1 Restart Manager Coordinate Restart Work to Completion	Following determination of the restart work scope by the ROC, the Restart Project Manager is responsible for coordinating the planning, scheduling, and completion of the work.
3.1 ROC, PNSRC Perform Final Review Recommend Startup	Results of the restart assessments will be presented to the Restart Oversight Committee (ROC) with an affirmation by the responsible system engineer or engineering manager, and the functional area superintendent of the readiness of the system or organization to support plant startup and safe, reliable power operations.
4.1 SMRT/NSDRC Recommend Restart	Following presentation and acceptance of the assessment results by the ROC, the Site Vice President will convene the SMRT to perform an integrated review of the affirmations, assess conformance with regulatory commitments and any other special criteria that may impact the initiation of startup activities.. Upon completion of SMRT review, the NSDRC shall review affirmations and determine overall plant readiness for restart.
4.2 Senior Vice Pres Authorize Restart	Based on the successful results of these reviews, the Senior Vice President Nuclear Generation will authorize start-up and power ascension.

5.1 OPS Startup and Power Ascension	Start-up and power ascension following the completion of start-up work will follow a deliberate and controlled approach that provides reasonable assurance of operational and personnel safety. The normal startup process defined in Cook Nuclear Plant procedures will be supplemented with appropriate management oversight and support from engineering and maintenance organization such that issues or concerns are promptly addressed and the startup can be accomplished in a safe, controlled manner.

3.0 Management Expectations

3.1 There are several key expectations which Cook management expects all personnel involved in this plan and effort to achieve. These are:

- Remove them and they-replace with us and we
- Communicate effectively-Promptly identify and correct problems
- Plan, plan, plan-then execute, check, adjust
- Do what we say we will do
- Mutual accountability
- Have passion!
- Pass it on

4.0 Communications

4.1 NRC Communication Plan: An important and basic element of the Restart Plan is ensuring that the Cook Nuclear Power Plant meets the expectations of the Nuclear Regulatory Commission (NRC). The NRC has established a D. C. Cook Restart Panel to review plant progress and ensure the restart issues identified by the NRC are resolved prior to start-up. Careful coordination of submittals with NRC review and inspection activities is required. Management will apprise the NRC of plans, actions, and results as the Restart Plan is implemented to provide assurance that ensure regulatory expectations are being met and to facilitate the regulatory process.

The key contact point for communicating plant activities to the NRC is Nuclear Licensing. The Manager, Nuclear Licensing, is expected to establish a NRC Communication Plan which will provide plant personnel direction on when and how to communicate with the NRC.

4.2 Plant Communication Plan: The successful implementation of the Restart Plan and subsequent continuing improvement efforts will depend strongly on the full engagement and commitment of the entire organization. Because of the importance of organizational communication, a communications plan must be developed by the Restart Plan Communication Coordinator.

The Communications Plan should contain an outline of the methods, media, and responsibilities for communication to and with employees about restart objectives and plans as well as about progress, successes, course adjustments, and lessons learned. The Communication Plan should also provide for redundant channels for communication of important information and allow for two-way exchanges between senior management and personnel.

The plan must also address communication with plant constituents such as AEP corporate officials, local and state officials, community members, and the general public.

5.0 Restart Plan Development, Approval, and Control

5.1 The following steps will be taken for control of future revisions to the restart plan:

- Revisions to the Restart Plan are initiated at the direction of the Site Vice President or the Restart Program Manager. The Restart Program Manager the administrative owner of the Restart Plan.
- Requests for revision to the Restart Plan should be made to the Restart Program Manager.
- Prior to issuance of a revision, the Restart Program Manager may request review and comments from other departments. As a minimum, proposed revisions shall be reviewed by the SMRT.
- The proposed revision shall be designated by the next sequential number after the approved existing revision.
- Upon resolution of any comments, the Restart Program Manager shall present the Restart Plan to the SMRT for review and discussion. Upon completion of discussion and resolution of comments, the Site Vice President shall approve the revision.
- The Restart Program Manager shall forward the original revision to Records Management. Nuclear Records Management shall use an approved distribution list provided by the Restart Program Manager to issue copies of the restart plan to appropriate plant personnel.
- The Manager, Nuclear Licensing, shall docket the revised Restart Plan with the NRC per AEPNG procedures.

5.2 Forms contained in the attachments section are considered as examples only and may be revised independently of a formal revision to the Restart Plan.

6.0 Identification of Restart Items

6.1 Potential Restart Items: Potential restart items may be identified from a variety of sources. Attachment J provides a list of the types of activities that may result in the identification of potential restart items. Personnel involved in these activities must maintain a "questioning attitude," consider the potential restart impact(s) of emergent issues and conditions, and assure that if such impacts exist, they are appropriately processed per the Restart Plan. Potential restart items must be identified on a Condition Report or Action Request.

Restart and post restart items entered into the Restart Database prior to Revision 3 of the Restart Plan (9/12/98) may not have a Condition Report or Action Request associated with them. A Condition Report or Action Request is required for those restart items that were assigned prior to 9/12/98 and that have not been closed per PMP 7200.RST.001. The only exception to this requirement is for those strategies that have been assigned a unique restart number.

6.2 Readiness Assessments: In addition to normal sources of problem identification, the Restart Plan identifies four (4) specific readiness assessments that will be performed to help determine plant readiness for restart. The intent of these assessments is to verify that the organization and systems are ready for start-up and operation.

These are:

- **Plant system readiness:** System engineers review plant systems. The plant system review process consists of the following elements:

  Selection of Plant Systems:

  Plant systems are selected for a detailed review and affirmation based on the historical performance and risk significance of the system. The review is performed in accordance with plant system readiness review instructions. Results of the assessment of selected systems are presented to the SERB and, upon concurrence, to the ROC. Potential restart and post restart items are to be identified and entered into the Restart Database per Attachment T. The systems reviewed are listed in attachment D.

  The remaining systems will be assessed and evaluated as part of the line responsibility of the engineering organization under the functional area assessments. Potential restart items and post restart items are to be identified and entered into the Restart Database per Attachment T.

  Restart Work Scope Additions:

  Based on review of open work items against the criteria presented in Attachment C, the system engineer is to provide recommendations for the restart scope changes for the selected systems in Attachment D to the SERB and, upon concurrence, to the ROC. This review includes the following:

  (a) Defining and evaluating the magnitude, significance, and risk of items scheduled to be resolved after restart;

(b) assurance that recurring problems on the system that could affect safe and reliable operations are being fixed;

(c) assurance that design basis and licensing issues on the system are being addressed within a time frame that is appropriate for the issue; and,

(d) assurance that operators will not be significantly challenged by operation of the system during normal, abnormal, or emergency conditions.

- **Functional area readiness:** Functional area readiness is an assessment to determine that the department is in an appropriate state of readiness to support startup and safe, reliable power operation. Functional area readiness includes items such as:

(a) adequacy of staffing levels, personnel experience, training, and qualifications to demonstrate compliance with regulatory requirements and commitments;

(b) completion of personnel training on normal start-up evaluations, power ascension requirements, industry operating experience including extended shutdown and unusual events at similar plants, emergency preparedness, changes in plant configuration, changes in plant operating and emergency procedures, and changes in key administrative procedures and processes;

(c) resolution of significant performance deficiencies and reduction of backlogs (corrective action, corrective maintenance etc.) to manageable levels;

(d) establishment of goals and priorities for the continued improvement of the department including use of critical assessment methods; and,

(e) review of system readiness of those systems not reviewed under the System Readiness Program.

Functional Area readiness is to be assessed in the following functional areas:

-Operations
-Maintenance
-Plant engineering
-Design engineering
-Production engineering

-Chemistry
-Radiation protection
-Outage management
-Licensing, including licensing support
-Fuels
-Plant protection
-Information management
-Plant performance assurance (combined with program assessment)
-Document Control and Records Management including procedure development

Potential restart and post restart items resulting from Functional Area Readiness Reviews are to be entered into the Restart Database per Attachment T.

- **Programmatic readiness:** Program readiness reviews are intended to confirm that programs are in place to support safe plant operation and regulatory adherence. Program issues identified during the programmatic readiness reviews are evaluated and necessary corrective or preventive actions classified as restart or post restart items. Potential restart and post restart items are to be entered into the Restart Database per Attachment T. Programs in place at the time of unit start-up will provide reasonable assurance that the plant is operated in conformance with its design bases and in accordance with the AEP quality assurance program. As a minimum, the program reviews will include:

  -10 CFR 50.59 program
  -Operating Experience
  -Instrument Uncertainty
  -Corrective Action Program
  -Design Change Process
  -Calculations
  -Design and Licensing Basis
  -Procedures
  -Performance Assurance (combined with functional area assessment)
  -Surveillances
  -Operator Training
  -FSAR Revalidation/Publication/Update Process
  -MOVs
  -Human Performance

Containment readiness: The containment readiness review assesses the ability of the containment system to meet the intended functional design requirements. The critical points of the review focus on the system materiel condition, surveillance testing, and the system configuration control.

Restart items and post restart items are to be identified and entered into the Restart Database per Attachment T.

6.3 NRC 0350 Restart Issues: The NRC has specifically identified 21 areas that require formal cause analysis to address. A formal cause analysis is required if the investigation determines the reported problem on the Condition Report is a discrepancy requiring formal cause analysis. These are:

-Programmatic Breakdown in Surveillance Testing
-Corrective Action Program Breakdown
-Programmatic Breakdown in the Maintenance of the Design Basis
-Failure to perform Safety Evaluations and inadequate evaluations
-Operator Training Issues
-Resolution of Ice Condenser Issues
-Resolution of non-safety related cables going to shunt trip coils
-Resolution of Hydrogen Recombiner Operability issues
-Resolution of Distributed Ignition Technical Specification
-Resolution of Containment Spray System Operability issues
-Resolution of Hydrogen Mitigation System Operability and Material Condition Issues
-Resolution of Containment Liner Pitting
-MOVs
-Functional Area Readiness Assessment
-Programmatic Readiness Assessment
-System and Containment Readiness Assessment
-Instrument Uncertainty
-FSAR
-Design Change Process
-Design and Licensing Basis Failure Modes

These issues require the following actions to be taken:

- Potential root causes of the conditions associated with the shutdown and any associated problems must be thoroughly evaluated.

- The scope of the analysis must consider the applicability of the related issues on similar systems, structures, components, procedures, processes, or activities.

- A rationale must be provided for rejecting potential root causes and that rationale must be clearly defined and documented for all root causes.

- A rationale for terminating the root cause and causal factors analyses must be based on a documented process that provides a reasonable basis for all conclusions reached.

- The population of potential root causes and their respective evaluations must be independently reviewed by the plant oversight committee. This requirement will be performed by the SMRT.

6.4 Other assessments: Plant readiness assessments for Operations Readiness and Nuclear Licensing Readiness will be performed prior to start-up. Other unique assessments, such as the Condition Report Review and FSAR Review, may be performed at the direction of management.

6.5 Processing attributes: Personnel performing readiness assessment or other self assessment activities are expected to detail the methodology used to perform the assessments and to provide sufficient justification for both positive and negative conclusions pertaining to the "Readiness" of a particular program, functional area or system. Unsatisfactory conditions reported through the Corrective Action Process must be reviewed as described in Section 7.0.

7.0 Criteria for classifying restart items

7.1 Establishing Restart Work Scope: The restart work scope is defined through a determination process driven by the ROC that is consistent with the ROC charter. Outstanding work items and potential restart items identified through assessments must be reviewed against defined criteria to determine which items must be included in the restart scope. Items that have been categorized as short-term or long-term items by the ROC are considered post restart. The restart work scope determination process is outlined in attachment E.

7.2 Classifying Issues as Restart Items:

7.2.1 When a potential restart item is identified, the restart work scope criteria contained in Attachment C of the Restart Plan must be used to screen the item for possible inclusion in the restart work scope. Potential restart issues shall be reported on a Condition Report or Action Request per applicable plant procedures.

7.2.2 Upon determining a potential restart item exists, the potential restart item must be submitted through the appropriate screening process, as follows:

a) If the potential restart item is reported on a Condition Report, the Condition Report is submitted to the MRB. The MRB assigns an owner. If the MRB determines the item is a

potential restart item, the owner must enter the item and the restart recommendation into the Restart Database. (See Attachment T for instructions for entering items into the Restart Database.) The owner is then required to present the information to the ROC for review and approval as a restart item. If the item is related to a plant system, it must first be presented to the SERB and, following their review to the ROC. The owner must update the Restart Database to reflect the SERB review results. The ROC must update the Restart Database to reflect its decision. Attachment I depicts this process.

Condition Reports that are required for restart are noted in the KTP database and a restart item number is assigned to the Condition Report. The restart Condition Report owner is responsible for assuring that appropriate corrective actions will be performed prior to restart to resolve the restart issue. A justification shall be provided in the closeout package for corrective actions that will be performed after restart. The corrective actions that are required to be performed prior to restart are noted as such in the KTP database. The ROC shall approve corrective actions that require a design change for implementation. Upon completion of the actions required for restart, the restart item associated with condition report is considered closed.

If the Condition Report had been previously evaluated by the MRB as not required for restart but the owner determines that the corrective actions represent potential restart items using Attachment C, the owner must enter the potential restart items and the restart recommendation into the Restart Database. The owner is then required to present the information to the ROC for review and approval as a restart item. If the item is related to a plant system, it must first be presented to the SERB and, following their review to the ROC. The owner must update the Restart Database to reflect the SERB review results. The ROC must update the Restart Database to reflect its decisions related to the issue. Attachment I depicts this process.

b) If the issue is reported on an Action Request (AR), the AR is forwarded to the Operations Work Control Supervisor/Outage Review Board (ORB) for review. If the AR is associated with one of the 21 risk significant systems, the ORB must forward the AR to the responsible system engineer and subsequently to the SERB. If the ORB identifies an AR that is not part of the 21 risk significant systems that should be a restart item, the AR is forwarded to the system engineer and the SERB. The system

engineer and SERB must each review the AR using Attachment C and make a restart recommendation. The system engineer must enter the AR and the restart recommendation into the Restart Database. (See Attachment T for instructions for entering items in the Restart Database.) The AR is then presented to the ROC for review and approval. The ROC must update the Restart Database to reflect its decisions related to the issue. Attachment N depicts this process.

7.2.3 Certain other processes require special processing to assure restart impacts are thoroughly considered. These are:For System Readiness and Containment Readiness Reviews, the assigned System Engineer must enter the potential restart and post restart items in the Restart Database. (See Attachment T for instructions for entering items in the Restart Database.) The System Engineer must then present the findings along with their proposed classification to the SERB. Upon review, the owner enters the SERB review results in the Restart Database and presents the recommended restart items to the ROC. Upon review, the ROC enters its findings into the Restart Database.

- For Functional area readiness reviews and programmatic readiness reviews, the items must be entered in to the Restart Database and classified as potential restart or post restart items by the owner. (See Attachment T for instructions for entering items in the Restart Database.) The recommendations are then presented to the ROC for review. Upon review, the ROC enters its findings into the Restart Database.

- For management directed reviews, the charter or other activity description document may direct the entry of findings into the Restart Database and recommendations to the ROC. It is the responsibility of the activity leader to assure that recommended potential restart and post restart items are entered into the Restart Database prior to ROC review for these special projects and assessments. (See Attachment T for instructions for entering items into the Restart Database.)
- If new Restart Database screens are required, the Restart Program Manager must be contacted to initiate Restart Database screen changes.

7.3 Appeals of Restart Item Classifications: In cases where the ROC does not concur with the recommended action, the item may be submitted to the SMRT for appeal.

7.4 Re-classifying Restart Items: Restart items approved by the ROC may subsequently be deleted as a restart item or reclassified as a post-restart item providing ROC approval is obtained. The rationale for deleting or reclassifying a restart item must be documented in the ROC minutes.

7.5 Grouping of Restart Items: RSOs and departments must group their assigned restart items into categories to facilitate the closure process and to identify the inter-relationships among strategies. When possible, these categories should correspond to one of the Restart Strategies depicted in Attachment M. The remaining restart items should be grouped into other categories suited to the topic. Attachment O depicts an example of how the groupings were done for the Operations Department. Upon completion of the groupings, the restart items identified under other Restart Strategies must be sent to the Restart Program Team and the Restart Strategy Owner(s) for review.

These groupings will be incorporated into the Restart Database to establish relationships among the various strategies. In addition, the RSOs may use the groupings to build closure packages per PMP 7200.RST.001.

7.6 Restart Items That Apply to Units 1 and 2: To enable closure of those items that apply to Units 1 and 2, a new restart item number must be generated to enable closure of the Unit 1 item. For physical plant work, a new AR would be required. For non-physical plant work, credit should be taken for the existing CR number tied to the original restart issue.

7.7 Duplicate Restart Items: In certain cases, duplicate entries may have been entered to the Restart Database for the same action. If this occurs, the restart item owner may request closeout of the duplicate entry by referencing to the original entry. The restart classification as a restart item or post restart item must be the same for both entries.

8.0 Development, Approval, and Implementation of Restart Strategies

8.1 Purpose and objectives: The SMRT may direct strategies be developed for certain restart issues. Strategies are intended to provide a detailed plan which captures both restart and post-restart corrective actions required to successfully resolve a particular equipment, organizational, functional or programmatic issue. The relationship among the various strategies and the Restart Plan is depicted in Attachment M Restart Strategies will be assigned a unique restart number but do not require a CR or AR.

The objectives of strategy plans are:

1) To develop strategies for major restart issues to enable the concise identification of objectives and actions necessary to successfully achieve the resolution of the issue.

2) To provide a comprehensive overview of the major issues that will be resolved prior to restart. The development of these strategies will facilitate the identification of linkages and the integration of the strategies that constitute the overall plant Restart Strategy.

3) To enable clear and concise communication with Cook personnel, including such oversight groups as the SMRT and ISRG, on issues and actions that will be resolved prior to restart.

4) To enable clear and concise communication with the NRC on issues related to the restart effort.

8.2 Strategy Plan Preparation: The requirements for the preparation of a strategy plan are contained in Attachment M.

8.3 Strategy Plan Process: The strategy development, review, and approval process is the responsibility of the SMRT.

8.3.1 The SMRT will identify those restart issues for which a strategy is required and notify the restart strategy owner (RSO) that a strategy is needed.

8.3.2 The RSO must prepare the strategy in accordance with Attachment M and use Attachment K as a cover page.

8.3.3 Upon completion of the initial draft, the RSO must present the strategy plan to the Restart Program Manager for review against strategy plan requirements. The Restart Program Management Team will use a peer review process consisting of representatives from Nuclear Licensing, the Restart Project Management Team, Performance Assurance and the Restart Program Management Team, as appropriate. Comments will be returned to the RSO for incorporation. Upon completion, the RSO must re-submit the strategy plan to the Restart Program Manager for a review completion sign off.

8.3.4 The RSO must then submit the strategy to the RSO's director for approval. The Director's signature represents that the Director:

- understands the strategy and that the strategy is officially endorsed by the department.

- accepts overall responsibility for the successful implementation of the strategy.

- will provide sufficient authority, resources, and management support to the RSO.

- Attests to the overall quality and technical accuracy of the individual strategy.

8.3.5 Upon Director approval, the RSO will present the strategy to the SMRT for review and approval for 0350 Checklist 1 items. The SMRT approval represents that the strategy is endorsed by the organization. The SMRT approval line on the Strategy Cover Page should be NA'd for strategies not requiring SMRT approval..

8.3.6 Upon approval, the Restart Program Manager must distribute the strategy in accordance with the distribution list contained on the Strategy Cover Page.

8.3.7 The copy received by the Restart Project Manager will be used to update the Restart Schedule.

8.3.8 The strategy must be revised as changing information or conditions emerge which materially affect the strategy . The revised strategy must be approved in accordance with the requirements of Sections 8.3.4 and 8.3.5.

8.3.9 Upon completion of the individual strategies, the population of potential root causes and their respective evaluations must be independently reviewed by the SMRT.

8.3.10 Upon approval by the RSO Director or SMRT as required, the RSO is responsible for working with the assigned RAAM, Licensing representative, Restart Program Team member, Restart Project Team Member and the Performance Assurance Representative to implement strategy plan actions. This group is called the Restart Strategy Implementation Team. Attachment P provides a list of expectations for project team members.

8.3.11 Upon completion of restart items requiring completion by the strategy, the RSO shall prepare the required closure package(s) in accordance with PMP 7200.RST.001.

8.4 Restart Strategy Integration: Verification, and Project Schedule:

8.4.1 Integration-Integration requires the identification of linkages to other strategies. Consideration must include the question: Is the strategy dependent upon the results of other strategies for information or pre-requisite actions needed to close restart items associated with their

assigned strategy? This information must be documented by the RSO in the Restart Strategy and be reflected on the Project Schedule as appropriate. Attachment Q provides an example of how this was done for containment.

8.4.2 Verification Plan: Each RSO must develop a Verification Plan to provide assurance that restart corrective actions required by the Restart Strategy were performed and that the corrective actions were effective to resolve the issue and complete the closure package(s).

8.4.2.1 The Verification Plan must answer the following questions:

- What method will be used to perform the verification (e. g., self-assessment, independent review, demonstrated compliance with effectiveness measures, field observations or other method that will provide this assurance)?
- What is the scope of verification?
- When will the verification be performed?
- Who will perform the verification?
- How will it be documented?
- Will a procedure be used?
- What contingencies will be in place before the verification?

8.4.2.2 Verification Plans must be reviewed and approved by the responsible line manager. Attachment R provides a cover page for approval of the Verification Plan.

8.4.2.3 A copy of the approved Verification Plan must be forwarded to the Restart Program Manager. The Verification Plan is to be treated as an addendum to the Restart Strategy or included as part of a strategy revision.

8.4.2.4 Upon implementation of the Verification Plan, the verification results and supporting documentation (e. g., assessment tool, etc.) must be included in the closure package(s).

8.4.3 Project Schedule: The Project Schedule is the next step in refinement of the Restart Strategy. The RSO must actively cooperate with the Restart Project Team schedulers to develop a detailed project schedule.

Attachment S provides a list of items that must be considered in Project Schedule development.

Restart Strategy Implementation Team members should provide input as needed to assist the RSO in creation of this schedule. The RSO must approve the Project Schedule. Upon approval, the Restart Project Manager must provide a copy of issued project schedules to the Restart Program Manager. The Restart Program Manager must place a copy of the Project Schedule in the restart file maintained by the Restart Program Team.

9.0 Establishment and tracking of restart items

9.1 The ROC is responsible for approving or rejecting items that are recommended to be added or deleted as a restart item. In cases where the ROC does not concur with the recommended action associated with a potential restart or post restart item, the decision may be appealed to the SMRT by the Restart Item Owner. ROC meeting minutes are used to document decisions regarding restart.

9.2 Upon approval to add or delete a restart item, the ROC must notify the Restart Program Manager to update the Restart Database and the Restart Project Manager to update the Restart Schedule.

9.3 The Restart Schedule represents the collection of corrective actions required for resolution of restart issues. The Restart Project Manager is responsible for scheduling the activities in the Restart Schedule. The Restart Project Manager coordinates and integrates schedules for individual strategy plans and maintains a master schedule for tracking of milestones and closure of issues. The SMRT shall approve the Restart Schedule when the Restart Schedule is finalized as determined by the Restart Project Manager. Changes to the approved Restart Schedule shall be made in accordance with the Restart Schedule Change Request process described below.

10.0 Restart Management

10.1 Restart Schedule Control: The Restart Schedule, as controlled by the Restart Project Manager, is used to define the outage scope, to determine outage completion, and to determine whether the unit and the organization are ready for start-up. An integrated flow chart of the implementation and closure process for restart issues is presented in Attachment E. The Restart Project Manager will work closely with the Outage Manager and the RAAMs to ensure the integrity of the restart schedule is maintained.

10.2 Restart Schedule Monitoring: Restart implementation requirements are identified for each restart item. Restart item implementation progress is routinely monitored by the Restart Project Manager and reported to Senior Management. Additional

actions are taken if the restart implementation requirements are different than expected and each item is managed to completion. The Restart Schedule is the primary mechanism for engaging the larger Cook organization in the effective resolution of issues. Each restart item includes specific activities needed for successful resolution of the issue, accountabilities, milestones, and expected results. These provide the basis for assessing restart item closure.

10.3 Restart Schedule Changes: Once a restart item is entered into the schedule, it is the responsibility of the restart item owner to assure activities are completed per the approved Restart Schedule. If a change is needed to the schedule, a Restart Schedule Change Request (Attachment L) must be completed and submitted to the Restart Project Manager. The Restart Project Manager must secure concurrence of the schedule change from the SMRT and approval by the Senior Vice President for those changes that represent significant schedule impact. Non significant changes will be approved by the Restart Project Manager with SMRT and the Senior Vice President signatures NA.

A proposed schedule change that impacts the restart critical path or changes the end dates on restart items are considered a significant change. A change that impacts the milestone dates but does not change the end date would not be considered significant.

10.4 Schedule Accountability: The Restart Project Manager schedules periodic accountability meetings of the Restart Strategy Owners and Restart Issue Owners and the management team to review restart progress and results. The purpose of these meetings is to review progress of the overall restart program, to review selected individual items in order to check and adjust plans to achieve expected results, and to share important lessons learned.

10.5 Scope Additions: Restart work scope additions are focused on those items not in the restart work scope and for emergent issues. Items already scheduled for completion prior to restart are evaluated against the criteria provided in Attachment C if there is a proposal to delete them. The goal of the readiness reviews, other management directed assessments and the work scope addition process is to define the work necessary for completion prior to restart such that safe and reliable power operation is achieved. Attachment J lists sources of potential work scope additions.

Based on the review of open work items against the criteria presented in scope changes for the selected systems in Attachment D, items are presented to the SERB and upon concurrence of the SERB to the ROC. Items recommended for addition to the restart scope for remaining plant systems are addressed on an item specific basis by the ROC following an initial review by line management. The restart work scope may be redefined based on the evaluation process described above. Decisions made by the ROC are documented in meeting minutes and the work item status is tracked.

10.6 Work Control: Following determination of the restart work scope by the ROC, the Restart Project Manager is responsible for coordinating the planning, scheduling and completion of the work, including the implementation of programmatic changes. The restart work scope performance process is outlined in attachment E. Close coordination and routine communications are expected to occur between the Restart Project Manager and the Outage Manager as well as personnel in their respective organizations.

10.7 System Monitoring: During this period, System Engineering is to monitor the progress of work on assigned systems and address emergent issues as required per the above criteria. Any major restart scope impacts defined by emergent issues must be brought to the ROC following line management review. All other emergent issues are assessed in accordance with the corrective action program.

Also, the System Engineer is to use this period to complete the assessment and evaluation of system readiness in preparation for the final system readiness review and affirmation of readiness for restart as described in Section 6.0.

11.0 Restart Item closure/documentation

11.1 Requirements for the closure of restart items are detailed in PMP 7200.RST.001.

12.0 Authorization to Restart/Power Ascension

12.1 Restart Readiness: Start-up and power ascension following the completion of restart work will follow a deliberate and controlled approach that provides assurance of operational and start-up safety. The normal start-up process defined in plant procedures will be supplemented with management oversight and support from engineering and maintenance organizations such that potential restart items are promptly addressed and the start-up can be accomplished in a safe, controlled manner. Any potential restart items that may represent significant restart work scope additions are to be brought to the prompt attention of the ROC, following line management review.

Prior to start-up, the restart readiness process involves the review and assessment of systems and functional areas to determine if the plant is ready to resume power operations. The restart readiness assessment is an integrated line management assessment that assists station management in determining the readiness to initiate startup and achieve safe, reliable power operation through the next operating cycle. The restart readiness assessment process is outlined in Attachment E. This assessment is one element of a comprehensive plant assessment program intended to be foundation of a continuous improvement philosophy. Implementation of the restart readiness assessment is intended to be consistent with the experience and lessons learned of other nuclear utilities. The restart

readiness assessment is being implemented at Cook based on lessons learned and will be captured such that this process can be implemented on a routine basis in the future.

The restart readiness assessment is intended to verify the completion of defined restart work and the affirmation of system, program, functional area and containment restart readiness for startup and power operations. Results of the assessment and affirmation of readiness will be presented to the ROC by the responsible system engineer, functional area manager or operations shift supervisor. Following acceptance by the ROC, the site vice president will convene an SMRT meeting to review these affirmations and assess conformance compliance with regulatory commitments and any other applicable criteria. The Site Vice President will recommend start up based on this review.

The Station Readiness for Restart Sequence, Reactor Restart and Power Ascension Plan will provide the basis for an affirmation that the plant is ready for power resumption. Guidance will be provided in the Station Readiness for Restart Sequence, Reactor Restart and Power Ascension Plan to address items that may be carried to an exception list.

12.2 Program and Functional Area Readiness: Prior to start-up, managers responsible for functional area and program assessments will affirm the readiness of that department and program to support a safe start-up and safe, reliable, and efficient operations. The assessment and affirmation is intended to ensure that potential restart issues have been identified, assigned actions have been completed, necessary training has been completed, and that departmental programs, processes, organizations, personnel, and management capabilities are sufficient to support safe and reliable operation. This affirmation will be documented per the Station Readiness for Restart Sequence, Reactor Restart and Power Ascension Plan.

12.3 System Readiness and Containment Readiness: Prior to start-up, responsible System Engineers will assess assigned systems for the purpose of affirming system readiness. System readiness reviews require a multi-discipline assessment and an evaluation of the completeness of work to be performed during this outage. System readiness affirmations by the system engineer are intended to confirm that plant systems meet functional design requirements, have been suitably tested and are ready to support safe and reliable startup and operation through the next cycle. The affirmation will be based on the work completed as described in section 6.0, and will include a coordinated system walkdown of the system with operations and maintenance personnel on systems defined by the Chief Nuclear Engineer.

The affirmation of system readiness will be used to assist in the turnover of systems to Operations. Any outstanding items remaining at final turnover

to Operations will be scheduled for resolution in accordance with the corrective action program commensurate with their significance. The System Readiness Review restart item will not be considered closed until final turnover to Operations is performed per the Station Readiness for Restart Sequence, Reactor Restart and Power Ascension Plan.

For system readiness affirmations the System Engineers will first submit their affirmations to the SERB for concurrence. System readiness affirmations are to be presented by the system engineer to the SERB and upon its approval to the ROC for the systems identified in attachment D. Affirmation of system readiness is documented with the signature of the system engineer and System Engineering manager. Affirmation of system readiness for the remaining plant systems will be addressed as part of the system engineering line management responsibility under the Functional Area Readiness Assessment.

12.4 Operation's Readiness: Prior to start-up, each Shift Supervisor will perform an assessment and affirmation of the shift readiness. These assessment will are intended to ensure: completion of required training, appropriate staffing levels, experience and qualification levels; acceptance of plant material condition, system readiness, operator work arounds (if any), and the control room environment. In addition, the following items must be assessed by Operations:

-Operability of Technical Specification systems, specifically those systems with identified operational, design and maintenance issues

-Operability of required secondary and support systems

-Results of pre-start-up testing

-Adequacy of system lineups

-Effectiveness of restart simulator/required training necessary to familiarize personnel with operating conditions

-Adequacy of surveillances/ tests/programs

-Significant hardware issues resolved (i. e., equipment with poor materiel condition, equipment aging, and modifications)

-Adequacy of power ascension testing program

-Effectiveness of plant maintenance program

-Maintenance backlog managed and its impact on operation assessed

The affirmation will be documented per the Station Readiness for Restart Sequence, Reactor Restart and Power Ascension Plan.

12.5 Nuclear Licensing Readiness: Prior to start-up, Nuclear Licensing shall perform an assessment and affirmation of compliance with regulatory requirements. This assessment shall include an assessment of whether:

-any license amendments required for restart have been issued

-any exemptions required for restart have been granted

-any code applicable reliefs required for restart have been granted

-Confirmatory Action Letter conditions required for restart have been satisfied to the satisfaction of the NRC

The affirmation will be documented per the Station Readiness for Restart Sequence, Reactor Restart, and Power Ascension Plan.

12.6 ROC reviews: Readiness assessments, including affirmations of systems, operations, licensing, functional areas, and programmatic readiness, will be presented to the ROC. Specific areas and issues that the ROC will examine are detailed in Section 6.0 under the descriptions and requirements for these areas.

12.7 SMRT reviews: Following acceptance of assessment results by the ROC, the Site Vice President will convene the SMRT to perform an integrated review of the affirmations, assess conformance compliance with regulatory commitments, and any other special criteria that may impact the initiation of start-up.

12.8 NSDRC Reviews: NSDRC reviews-Following acceptance of assessment results by the SMRT, the NSDRC will review affirmations for readiness and assess plant readiness for restart.

12.9 Restart Approval: Based in part upon the recommendations of the ROC, the SMRT, input from Plant Performance Assurance, NSDRC, and ISRG, the Senior Vice President will assess the readiness of the unit and the organization to restart and authorize initiation of start-up and power ascension , per the Station Readiness for Restart Sequence, Reactor Restart and Power Ascension Plan.

12.10 Station Start-up: The Station Readiness for Restart Sequence, Reactor Restart and Power Ascension Program Plan will cover start-up management, staffing and organization, start-up approach, and post start-up activities such as additional monitoring and surveillances. Of particular importance are the special measures that will be taken to assure safe start-up after an extended outage (e.g., additional hold points and a management approach for handling contingencies that arise during start-up, configuration of the augmented Operations staff during start-up, and identification of additional resources that required for start-up).

12.9.1 During start-up and power ascension, the Cook Nuclear Plant management structure will be augmented with a shift plant manager and shift engineering to compliment the shift maintenance manager during start-up and power ascension. The responsibilities of these personnel are described and will be included in the Station Readiness for Restart Sequence. Reactor Restart and Power Ascension Plan.

- Shift Plant Manager-The shift plant manager provides on-shift (24-hour) presence as a direct representative of the plant manager and is responsible for maintaining an overall perspective of the start-up process. If necessary, the shift plant manager is authorized to request operations to delay the start-up, reduce power, or shutdown to make necessary repairs.

- Shift Engineering Manager-The shift engineering manager provides on-shift (24-hour) presence as a direct representative of the Chief Nuclear Engineer and is responsible for maintaining an overall perspective of engineering support of the start-up process. The shift engineering manager will control on-shift engineering resources as necessary to support scheduled startup testing activities, resolve emergent operability issues, support maintenance and manage necessary reactor engineering test activities.

- Shift Maintenance Manager-The shift maintenance manager provides on-shift (24-hour) presence as a direct representative of the maintenance manager and is responsible for maintaining an overall perspective of maintenance support of the start-up process. The shift maintenance manager will control on-shift

maintenance resources as necessary to support scheduled start-up testing activities, resolve emergent equipment issues, and support operations.

The supplemental positions described above will be implemented as directed by the plant manager at critical evolutions during startup such as change to mode 4, initial criticality, turbine roll, and parallel to grid. This supplemental team is required to perform an assessment of plant staff performance during restart. The supplemental organization will be disbanded as directed by the plant manager but not before mode 4 to 30% power.

12.11 Performance Requirements: To help minimize the potential for performance errors during plant start-up, the following actions will be taken:

- Operations personnel will utilize the simulator to practice the start-up evolution and provide assurance of understanding and proficiency with applicable start-up procedures and special requirements. The supplemental team will assess the effectiveness of simulator/required training necessary to re-familiarize to personnel with operating conditions.

- A review of past Cook Nuclear Plant start-up issues and relevant industry operating experiences will be performed during the functional area reviews to assure understanding of past experience and lessons learned.

- Prior to initiating the start-up evolution, Department communication meetings will be conducted with each plant department to discuss management expectations regarding start-up and power ascension processes, schedule, and responsibilities.

13.0 Management of Post Restart Issues

Upon completion of restart, there will be additional corrective actions and corrective action commitments which will require tracking, trending, and completion to effectively resolve items associated with this outage. The Restart Project Manager is expected to provide overall monitoring of these activities and, where necessary, to provide routine issue statusing to the SMRT.

In addition, while certain items , such as the enhancement efforts on the work control process, have been classified as not being required for restart, the item may still impact Cook efforts at long term improvement and safe, reliable, and efficient operations. Planning for resolution of these items is necessary. These post restart items must also be

added to the Restart Database to provide assurance the activity is captured and tracked to completion.

14.0 Independent Verification

14.1 Performance Assurance (PA): Performance Assurance will provide independent assessment of the effectiveness of the restart through observations of restart scope management, review of evaluations and readiness assessments, review of restart actions, sampling of databases and schedules, observations of presentations to the SERB, ROC, and SMRT, and review of closure packages. The Restart Readiness Verification Plan provides direction to Performance Assurance personnel for these activities.

14.2 Independent Safety Review Group (ISRG): The ISRG will identify and review key information about the restart and provide independent feedback regarding the restart program effectiveness to the Senior Vice President and other management personnel.

14.3 PNSRC/NSDRC: The PNSRC and the NSDRC may provide reviews of restart related documents that are not directly related to the requirements of their routine responsibilities. The NSDRC shall review restart readiness affirmations and assess plant readiness for restart.

15.0 Near-Term Post Restart Actions

Near term post restart actions are those actions which are required to provide continued focus on the plant for the first 7-14 days following the outage. This time frame has been shown to be the most likely period when outage related component maintenance will either experience a "run-in" and continue to display reliable operation, or some components will experience accelerated "wear out" and could potentially cause a forced outage. This extra attention to the plant during this period could detect early indications of equipment "wear out" and provide sufficient operator response time to take compensatory action intended to prevent possible plant trip or a premature forced shutdown. Prior to escalating to a 100% full power, the Site Vice President and Plant Manager will decide what shift augmentation should remain during this period.

16.0 Long-Term Post Restart Actions

Long-term post restart actions are those actions which the plant will take based on the lessons learned from this restart experience and the strategy by which the organization will demonstrate commitment to achieve long term, improved performance. The Site Vice President will direct the development of a long-term plan that will establish and direct actions for long term safe, reliable, and efficient operation. This plan is scheduled for completion prior to restart and power ascension activities and will include:

-a predefined time frame following the completion of corrective actions associated with the restart, during which the effectiveness of corrective actions will be monitored.

-whenever possible, performance objectives established for long-term strategy areas and based on a measurable set of criteria that are tracked and trended to provide continuous monitoring of the implementation and effectiveness of corrective actions taken for the restart effort The measures are intended to provide precursor indication of declining performance.

17.0 Restart Plan Termination

This plan, in its latest revision prior to the restart of Unit 2, shall be considered completed and shall no longer have any force and effect after start-up of Unit 2, following this extended outage.

ATTACHMENT A

SYSTEM ENGINEERING REVIEW BOARD (SERB) CHARTER

PURPOSE: Perform a system-based, multi-disciplinary technical review of potential restart issues associated with risk significant plant equipment. This board is intended to ensure consistent application of the restart criteria contained in Attachment C of the Cook Nuclear Plant Restart Plan among system engineers, and that restart decisions reflect the shared concerns of Operations, Maintenance and Engineering. The result of this review will be to define the equipment related work that is needed to provide reasonable assurance of a safe and reliable startup and achieve a safe, reliable, and efficient post startup operating cycle.

MEMBERS:

Plant Engineering Director*
System Engineering Manager (Chair)
Production Engineering Manager*
Safety and Analysis Manager
Reliability Engineering Manager*
Test and Reactor Engineering Supervisor
Mechanical Systems NSSS Engineering Supervisor
Mechanical Systems BOP Engineering Supervisor
Prime Movers and Aux. Systems Engineering Supervisor
Electrical and I&C Systems Engineering Supervisor
Board Secretary

Non-Member: Additional attendance by members of Restart Oversight Committee is expected to reinforce expectations and provide oversight for the restart issue review process.

Alternate chair: Site Engineering Managers (denoted by *)

Alternate safety and analysis manager: Engineers in the Safety and Analysis Section, subject to acceptance of the SERB chair or alternate chair.

QUORUM: Chair (or alternate), two Onsite Managers, Safety and Analysis Manager (or alternate), and Secretary.

ACTIONS:

1. Review all potential restart items identified by System Engineers based on criteria defined in the restart plan; the System Engineer will present the proposed restart items for discussion. A representative of Operations and Maintenance knowledgeable of the system's restart issues will support the system engineer and to provide reasonable assurance the perspective of the other production groups is considered. The Operations representative will normally be an SS or a US of the Operations crew responsible for the system, but can be an SS assigned to the Work Control Center.
2. Designate systems that are required to be presented to the SERB by system engineer, Maintenance and Operations.
3. The SERB will review all items identified as potential restart issues by the system engineer system readiness review. The system engineer, Operations or Maintenance representatives will also identify other issues that are not identified as potential restart items but may be questioned.
4. A complete list of open issues on each system will be available during SERB meetings. The SERB will review and question additional items as desired to determine if they should be restart issues.
5. Ensure a record of decisions and concerns raised by the SERB review is documented for future review.
6. As a result of the review, recommend specific potential restart items for approval by the ROC.
7. The Director of Plant Engineering is responsible for management oversight of SERB activities and for disbanding this board after startup when directed by the Site Vice President.

ATTACHMENT B

RESTART OVERSIGHT COMMITTEE (ROC) CHARTER

PURPOSE: Exercise management oversight and approval of physical and programmatic work scope necessary to provide reasonable assurance of a safe and reliable startup, and achieve a safe, reliable, and efficient operating cycle.

MEMBERS:

Position	Primary	Alternate
Plant Manager , Chair	Doug Cooper	Bob Gillespie
Operations Superintendent Vice Chair	Guy Tollas	Larry Weber-
Plant Engineering Director	Ken Baker	Alberto Verteramo
	Don Hafer	Mike Finissi
Maintenance Superintendent	John Boesch	Mark Stark
Licensing Manager	Gordon Arent	T. R.Satyan Sharma
Radiation Protection/Chemistry Superintendent	Doug Noble	Paul Holland
Training Superintendent	Barry Wallace	Goerge McCullough
Outage Manager	John Stubblefield	Dick Strasser
Restart Program Manager*	Phil Gora	Dale Tidwell
Secretary*	Tammi Matz	Sandy McClintock

*Indicates non-voting members

QUORUM: Chairperson or vice chairperson, and three (3) additional voting members, two of which must be primary members. Attendance from Performance Assurance and Business Performance is strongly encouraged to perform an active oversight role.

ACTIONS:

1. Set and communicate expectations for the organization to evaluate work items against the restart scope criteria.
2. Ensure screening criteria are consistently applied via the restart oversight committee review, meeting and approval process.

   Some items that meet one or more of the criteria may be deferred until after restart if there is special consideration that provides the basis for this decision. Examples may include items that are only a concern during certain seasons, reduced risk of performing the work during a system outage, or implementation of adequate compensatory actions until a long-

term solution is defined. A clear basis for deferral of these items is to be provided.

3. Review and approve:

   A. Restart action items to be completed prior to startup.
   B. Station readiness to initiate unit startup and power ascension as determined by the results of the assessment of readiness to start up.

4. Maintain a record of presentations, discussions, deliberations and basis for decisions and recommendations.

5. Review charter as necessary to accommodate changing conditions.

Convene as necessary to accomplish this charter prior to and during startup. Disband after unit startup when directed by the site vice president.

ATTACHMENT C

CRITERIA FOR WORK INCLUDED IN RESTART SCOPE

To be included in the plant restart work scope, items must meet the following criteria:

1. **Level 1 Screening**

   Resolves an immediate industrial or nuclear safety, operability or regulatory issue. These issues will be mandatory restart items.

   1. Necessary to address the voluntary shutdown for the A/E inspection and related programmatic issues.

   2. Necessary to address the confirmatory action letter.

   3. Required to return an INOPERABLE system, subsystem or component to OPERABLE status. IF a Condition Report is issued for which an Operability Evaluation is performed and the system, subsystem or component is declared inoperable, THEN the issue meets Level I screening criteria. Equipment that is identified as "inoperable" by the CR originator in Part A of the CR are not to be automatically classified as a restart issue but are dependent upon the performance of the operability evaluation to determine classification as a restart item.

   4. Required to resolve an immediate industrial or nuclear safety concern.

   5. Necessary to address regulatory commitments.

2. **Level 2 Screening**

   Not an immediate industrial or nuclear safety, operability or regulatory issue. These issues will be considered for addition to the restart item list based on the review and recommendations of plant engineering, operations, and maintenance if the action:

   1. **Eliminates** an existing component failure, deficiency, or condition that could result in operation in, or entry to, an LCO action statement.

   2. **Resolves** existing deficiencies or conditions that:

      a. would result in failure or inability to perform a required surveillance test during the current outage or the following operating cycle in accordance with the plant technical specifications;

      b. would increase the risk to operation for safety associated with performing a surveillance; or

c. would result in the failure to meet a license requirement or a restart commitment to an outside agency.

3. Restores degraded critical components or conditions that could result in a plant transient, power reduction or shutdown.

4. Resolves conditions that have resulted in repetitive safety system or equipment failures.

5. Restores licensing basis deficiencies to conforming conditions (extended programmatic reviews and scheduled corrective actions may be completed post-restart with the proper justification of no safety impact, a satisfactory OPERABILITY determination, and appropriate regulatory communication).

6. Corrects equipment with design basis deficiencies; i.e., deficiencies in safety-related or technical specification equipment not in conformance with design basis documents such as the FSAR (extended programmatic reviews and scheduled corrective actions may be completed post-restart with justification of no safety impact, a satisfactory OPERABILITY determination and appropriate regulatory communication).

7. Corrects deficiencies in configuration management programs, processes, engineering analysis codes, or operating, maintenance, or test procedures that have a reasonable probability of affecting equipment OPERABILITY (documentation deficiencies, which have no safety impact, may be completed post-restart).

8. Eliminates conditions that create a potential for personnel radiation exposure, radioactivity release, or effluent discharge in excess of limits.

9. Reduces cumulative deficiencies, backlogs or conditions that, in the aggregate, are evaluated to have significant negative impact on safety, operability or reliable plant operation. (Not applicable to individual work items).

Issues not meeting level 1 or level 2 criteria above are not restart issues. Through this screening process, each of the corrective actions is assigned an appropriate priority based on safety significance to ensure the proper resources and attention is devoted to the issue.

ATTACHMENT D

PLANT SYSTEMS TO BE REVIEWED BY ROC

120 Vac/CRID Inverters

Air Recirculation/Hydrogen Skimmer

Auxiliary Feedwater

250 Vdc Station Batteries

Component Cooling Water

Containment

Containment Spray

Control Air

ECCS Accumulators

ECCS Charging Modes 1, 2, 3/CVCS High-head Injection

ECCS RHR

ECCS SI

Electrical Safety Busses (4000 V/600 V)

Emergency Diesel Generators

Essential Service Water

Ice Condenser

Main Steam

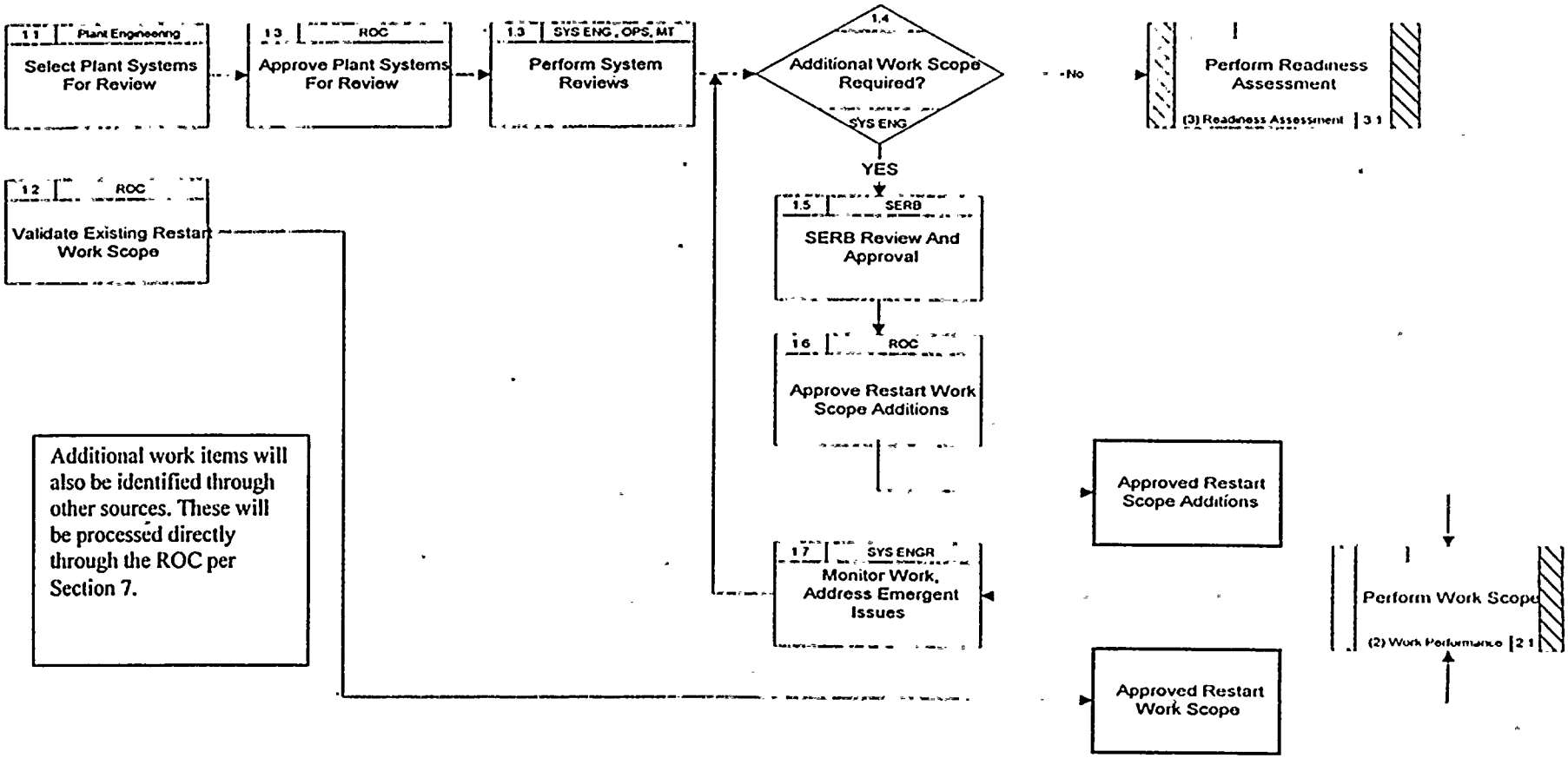
Non-essential Service Water

Plant Air Compressors

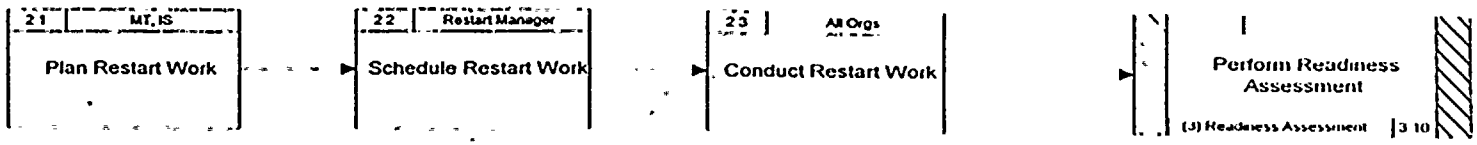
Reactor Coolant System/RCS Pressure Relief

Reactor Protection System/Solid-state Protection/ESFAS

(1) Restart Work Scope Determination

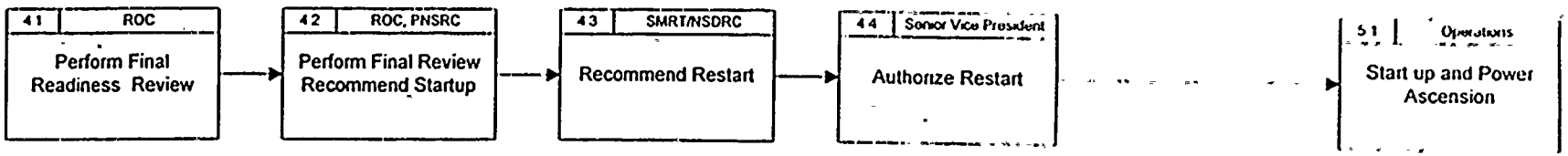


(2)Restart Work Scope Performance



(4) Restart Authorization

(5) Power Operation



ATTACHMENT F
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ATTACHMENT G

NGG
RESTART TEAM
PROJECT MANAGEMENT
CHARTER

PURPOSE:

It is the Cook Plant Restart Management Team's charter to provide to the NGG organization a detailed high quality schedule that provides assurance that restart issues are identified, scheduled, completed, and closed in accordance with the Restart Plan. The Team will be composed of individuals who will aggressively seek out and coordinate the resolutions of challenges to the schedule. The Team will work through conflict and confrontation to ensure decisive actions are taken to develop simple solutions to problems that challenge the schedule. Team members will interact face to face with Line and Senior Management to ensure that issues are known, understood, and resolved in a timely manner. The Team will interface with the NRC in an open and professional manner. The Team members will foster open communications both internally and externally. The Team will embrace Human Performance Improvement principles to ensure that a quality plan is produced that addresses safety, quality and cost. The Team will emphasize teamwork and mutual accountability by setting high performance expectations, being demanding customers, having personal accountability, and delivering what we commit to deliver.

ACTIONS:

1. Interface with all NGG departments to identify restart issues
2. Enter the restart issues in the restart data base
3. Ensure that all restart items have an identified owner
4. Ensure that restart items are planned
5. Develop a schedule logic that is sequenced and resource loaded
6. Ensure that the schedule includes all restart issues
7. Provide the physical work schedule to the Integrated Scheduling group for conversion to PODs
8. Develop a schedule for the functional and programmatic issues that at a minimum identifies the kind of resource (if not by name) and is resource loaded at least in terms of number of days of work/individual
9. Develop standardized format for "Work Down Curves"
10. Solicit data from functional area owners to produce weekly production reports
11. Develop set of effectiveness measures to monitor restart issue performance relative to an industry standard for excellence
12. Lead the weekly production meetings by providing an agenda that includes focus items that the team determines requires management attention
13. Frequently perform face to face contact with restart issue owners to determine status, concerns, and challenges to the schedule.
14. Be cognizant of and resolve schedule conflicts in a timely manner.
15. Co-ordinate and oversee the integration of scope, plan, schedule, estimates and cost.
16. Provide timely status updates to the Site Vice-president, Plant Manager, and NRC Resident.
17. Ensure that items approved as Restart issues by the ROC are accurately recorded in the Restart Database.
18. Ensure that all regulatory and close out issues are scheduled and completed on time.
19. Proactively drive issues to the ROC to ensure timely disposition toward scope identification.
20. Review and approve outside service requests to ensure scope is known and reflected on detailed restart schedule.

ATTACHMENT H

NGG
RESTART TEAM - PROGRAM MANAGEMENT CHARTER

PURPOSE:

It is the NGG Restart Plan/Process Team's charter to provide to the NGG organization a plan and process that provides assurance that restart issues are identified, captured, and driven to closure in an organized manner. The Team will be composed of individuals who will steadfastly seek to ensure closure of issues in a timely manner but also in a consistent and effective manner. The Team will work closely with NGG Management, Regulatory Affairs, and Performance Assurance to ensure decisive actions are taken to develop simple solutions to problems that challenge the process. The team will hold all employees and each other accountable for adhering to the restart processes and procedures, and the expectations set by senior management for implementation of the restart plan. The Team will interface with the NRC in an open and professional manner. The Team will not place Schedule over Safety or Quality.

ACTIONS:

1. Provide administrative support for the SMRT including:

    - Schedule the meetings
    - Set meeting agendas
    - Providing high quality meeting minutes
    - Provide administrative support

2. Coordinate the development of Restart Plan strategies

3. Provide project management support for the restart oversight committee (ROC).

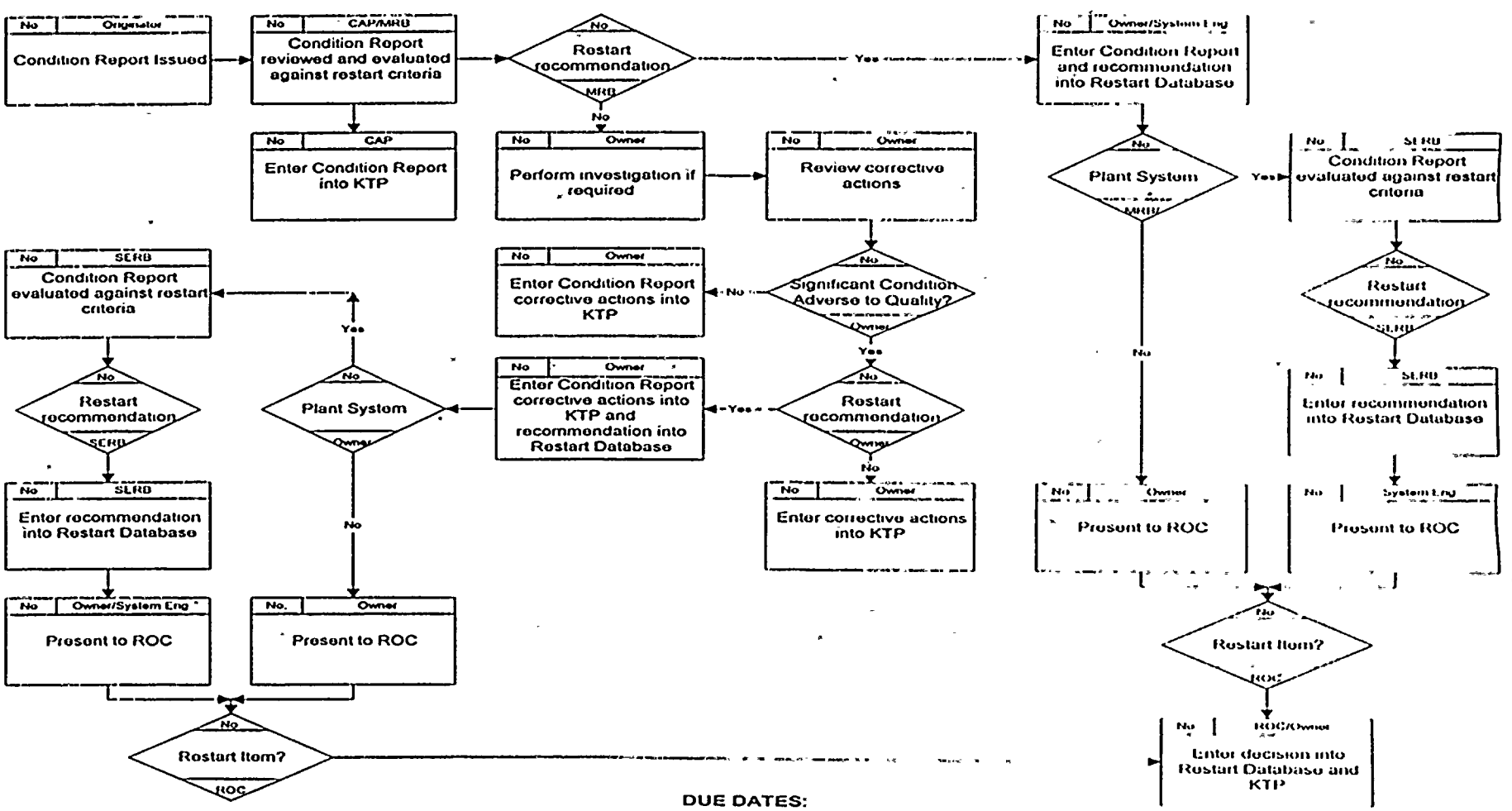
    - develop and drive a comprehensive schedule for ROC presentations
    - integrate the ROC schedule into the restart schedule
    - develop and implement a consistent process to review emergent items
    - screen presentations for consistency and quality prior to presentation to the ROC
    - structure meeting presentations
    - proactively drive issues to the ROC to ensure timely disposition of restart issues
    - provide meeting moderation, structure, and rules of engagement
    - provide high quality meeting minutes
    - provide full engagement of the restart program manager and ROC membership.

4. Provide support to senior management and licensing for 0350 and other restart meeting presentations.
5. Develop milestones for Restart Plan activities for integration into the restart schedule.
6. Process/Procedure Development
    - Develop the processes and procedures required to support the restart plan.
    - Maintain and control the restart plan and procedures.
    - Be cognizant of and resolve restart process conflicts in a timely manner.
    - Document processes used to perform restart plan reviews. (CR review, CM review etc.)
7. Develop and administer the restart database.
8. Interface with NGG departments to implement restart processes and identify restart issues.
9. Provide Restart Plan issue closure and oversight

- Record strategy and assemble closure documentation for restart plan functional area assessments, ROC final reviews, SMRT final reviews, ROC meeting minutes, and SMRT meeting minutes.

ATTACHMENT 1

FLOW PATH FOR CONDITION REPORT CLASSIFICATION



DUE DATES:

KTP will track the Condition Report investigation due date and the due dates for the individual Corrective Actions.
The Restart Database will track the Restart Issue completion due date. i.e. The due date of the Restart Corrective Action with the latest restart action item due date

ATTACHMENT J

SOURCES OF POTENTIAL RESTART ISSUES

Open condition reports & corrective actions
Open NRC items
• Violations
• Unresolved items (URIs)
• Inspection follow-up items (IFIs)
Minutes of NRC DC Cook Group Meetings
Engineering Evaluation Requests/Engineering Technical Notes
Open Action Requests
Operator Work-around list
Action Item Tracking
Open PNSRC/ISRG/NSDRC issues
Licensee Event Reports (LERs)
NRC commitments
Westinghouse Advisory Letters
Surveillance procedures
Generic Letters
INPO Evaluations Open Items
• FSAR Review Program
Design Bases Review
Technical Specification changes
Operating Experience (SOERs, SENs, IENs, etc.)
Open DCPs
Open Temporary Modifications
0350 Open Items
Readiness Reviews
Self Assessments
Restart Reviews
Performance Appraisal Oversight Findings
Backlog Reviews

ATTACHMENT K

STRATEGY COVER PAGE

Restart Item Number (if assigned):
Restart Items Required to Be Completed by Strategy:

Applicability: Unit 1 only____ Unit 2 only____ Units 1 and 2____
Revision Level:

Restart Strategy Title:

Restart Strategy Issue Description:

Strategic Objective/Goal:

Restart Strategy Owner (Printed Name): Ext.:

Restart Strategy Owner Signature: Date:

Restart Program Manager Review: _____

Restart Strategy Owner Director/Date: _____

SMRT Review and Approval/Date: _____
Distribution: Nuclear Records Management (Original) Restart Program File
Restart Strategy Owner Licensing Representative
Restart Project Manager Restart Area Accountability Manager
Restart Program Manager PA RepresentativeRestart Scheduling Representative Restart Program Representative

ATTACHMENT L

RESTART SCHEDULE CHANGE REQUEST

Purpose of Request:

Restart Issue Number:
Applicability: Unit 1 only____ Unit 2 only____ Units 1 and 2 ____
Description of Change:

Justification:

Proposed Revised Schedule (start/finish):

Estimated Impact on Restart Schedule:

Requestor: _____ Extension:
Print name

Restart Project Manager Concurrence/Date:_____

SMRT Concurrence/Date:_____

Senior Vice PresidentApproval/Date_____

Distribution:
Requestor
Restart Project Manager
Restart Program Manager
Restart Project File

ATTACHMENT M

DEVELOPMENT OF RESTART ITEM STRATEGIES

The SMRT may direct strategies be developed by strategy owners for certain restart issues. Strategies are intended to provide a detailed plan that captures all actions required to successfully resolve a particular equipment, organizational, functional or programmatic problem.

In the development of strategies, the corrective actions must include documented insights from the organizations or individuals that may have contributed to the event, those responsible for developing the corrective action, and those responsible for the implementation of the corrective action. This may be included directly in the strategy or by addendum.

Strategies are intended to be dynamic documents and the Restart Strategy Owner must assess changing information and conditions to determine if the strategy must be revised during the restart process.

A strategy must address the items listed below. More detailed guidance as to the requirements for completion of each item is available from the Restart Program Team.

A. STRATEGY COVER PAGE

1. Has restart strategy number been included? Yes____ No_____

1.a List all restart items that are required to be completed by the strategy? Yes____ No____

2. Has a unique revision level been assigned? Yes _____ No_____

3. What Unit is the Strategy applicable to? Unit 1___ Unit 2___ Both Units___

4. Restart Strategy Been Identified? Yes____ No_____

5. Strategy Description/Problem Statement Written? Yes____ No_____

6. Strategic Objective/Goal Stated? Yes____ No_____

7. Has a Restart Strategy Owner (RSO) been identified? Yes____ No____

8. Is the RSO Name Printed and Signature Made? Yes____ No_____

9. Is the Restart Program Manager signature made? Yes___ No___

10. Director/Superintendent Review and Approval done? Yes____ No_____ N/A____
11. SMRT Review and Approval done? Yes____ No_____ N/A____

12. Is Distribution List Correct? Yes____ No_____ N/A____

B. DESCRIPTION OF PROBLEM

1. Is the description adequate to convey the problem? Yes____ No_____

   The issue description must include the sources that identified the issue/problem including related individual NRC findings and Condition Reports. The original analysis which established the issue/problem and the reason(s) for the issue problem must also be included, if available. In certain cases, a formal root cause analysis may not exist but is required to be performed as part of the assessment portion of the strategy. This fact must be stated in the issue description.

   The issue /problem statement must include the link or relationship to other strategies.

2. Does the description include the cited source documents that established the problem? Yes_____ No _____

3. If this is an 0350 item, have all of the Licensing documents (NRC IRs, LERs, CRs, etc.) associated with the strategy been referenced? Yes___ No___

4. If the problem is based on a formal root cause, does the description include an identification of the reasons for the problem? Yes____ No___ N/A____

5. If the problem was not based on a root cause, does the description indicate such? Yes____ No____ N/A____

6. Have linkages been made to other Restart Strategies? Yes___ No___ N/A___

C. DESCRIPTION OF ASSESSMENT

1. Has an objective for the assessment been provided Yes____ No____

2. Is the assessment method identified? Yes____ No____

3. Is the scope of the assessment defined? Yes____ No____

4. Is a summary of findings included? Yes_____ No_____

5. Is there a determination of the extent of condition? Yes____ No____

6. If a Root Cause has been performed, has the Root Cause process been specifically stated or referenced? Yes___ No___ N/A___

7. For 0350 has a formal root cause been performed? Yes____ No ____ N/A____

8. Have the potential root causes of the issue and any associated problems been thoroughly evaluated? Yes____ No____ N/A ____

9. Has a rationale been provided for any potential root causes rejected and has that rationale been clearly defined and documented for all root causes? Yes_____ No____

10. Is a rationale provided for terminating the root cause and causal factors analyses which is based on a documented process that provided a basis for all conclusions reached? Yes____ No____

11. Has the assessment considered the applicability of the related issues on similar systems, structures, components, procedures, processes, or activities at Cook and other industry facilities in an attempt to identify trends or generic concerns? Yes____ No____ N/A____

12. Has a Condition Report been written to address the problem? Yes____ No_____

D. IDENTIFICATION OF CORRECTIVE ACTIONS

1. Are items uniquely numbered and sub-numbered? Yes____ No____

2. Are items identified as restart and post restart and a justification provided for the issue? Yes____ No____

3. If multiple problem reports are being addressed are the corrective actions tied to specific problem reports? Yes____ No____

4. Have potential impacts on other restart strategies been identified? Yes___ No___ N/A___

5. Have potential impacts on other organizations been addressed? Yes____ No____

6. If so, have they been identified as being responsible for specific corrective actions? Yes____ No____

7. Has the need for training been addressed? Yes____ No____

   Training actions must include information from lessons learned from the event analysis and root cause determinations, if performed. Training must also be performed on technical and administrative changes made to the facilities and/or practices and include discussion of why the changes are necessary. If training is not required as part of the corrective action, a justification must be provided.

8. Have the corrective actions been cross-referenced to all of the associated root causes and causal factors? Yes____ No____

9. Are the corrective actions sufficiently detailed to ensure all activities related to the completion of the corrective action have been identified? Yes____ No____

10. Have safety evaluations been performed and documented to ensure that the corrective actions did not result in loss of safety margin? Yes____ No_____

11. Was confirmation made that all applicable codes and standards were adhered to during the development and analysis of corrective actions? Yes_____ No____

12. Are the corrective actions adequate to preclude repetition? Yes___ No__

E. PROJECT PLAN

A typical project plan must include:

- Task Development
- Owner
- Duration
- Estimated Completion
- Logic Ties

1. Are project plan items numbered so they are directly tied to the corrective actions? Yes____ No____

2. Does each entry and sub-entry have a detailed schedule for pre and post restart activities and which identifies the organization(s) responsible for their actions? Yes____ No____

3. Are the resources required to complete the task and the estimated number of manhours provided? Yes____ No____

4. Are long term actions clearly identified and scheduled? Yes____ No____

5. Is a basis provided for the delay and information provided on how the items will be tracked? Yes____ No____

6. Are interim actions identified and are they documented? Yes___ No____

F. EXPECTED RESULTS/EFFECTIVENESS MEASURES

1. Are strategic objectives and goals of the corrective actions identified? Yes____ No____

2. Are measurable performance indicators included? Yes____ No____

3. If equipment is affected, have measures been included for restoring systems and verifying they can perform their intended safety functions through post maintenance and modification testing? Yes____ No____

4. Have near and long term effectiveness measures been identified? Yes____ No____

G. DOCUMENTATION

1. Has documentation been listed that will be needed to support issue closure? And has PMP 7200.RST.001 been referenced as the document required for closeout? Yes____ No____

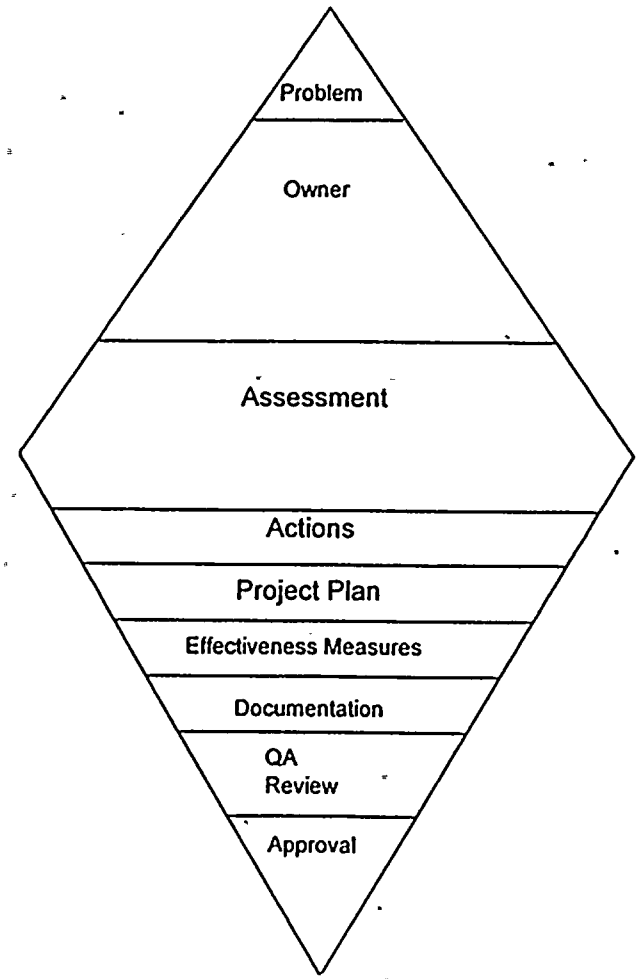
H. QA REVIEW/EFFECTIVENESS ASSESSMENTS

1. Have requirements been included to perform self-assessment and, as necessary, independent assessments to confirm effective implementation of the project plan? Yes____ No____

2. Has statement regarding final readiness affirmation been included? Yes___ No___

3. Has Verification Plan been included? Yes___ No___

Restart Plan
Strategy Diamond



Description of the problem
Description of the link to the previous strategy/problem.

Strategy Owner

Description of the scope of the assessment including the logic and actions leading to the scope definition.

Actions for addressing problems.

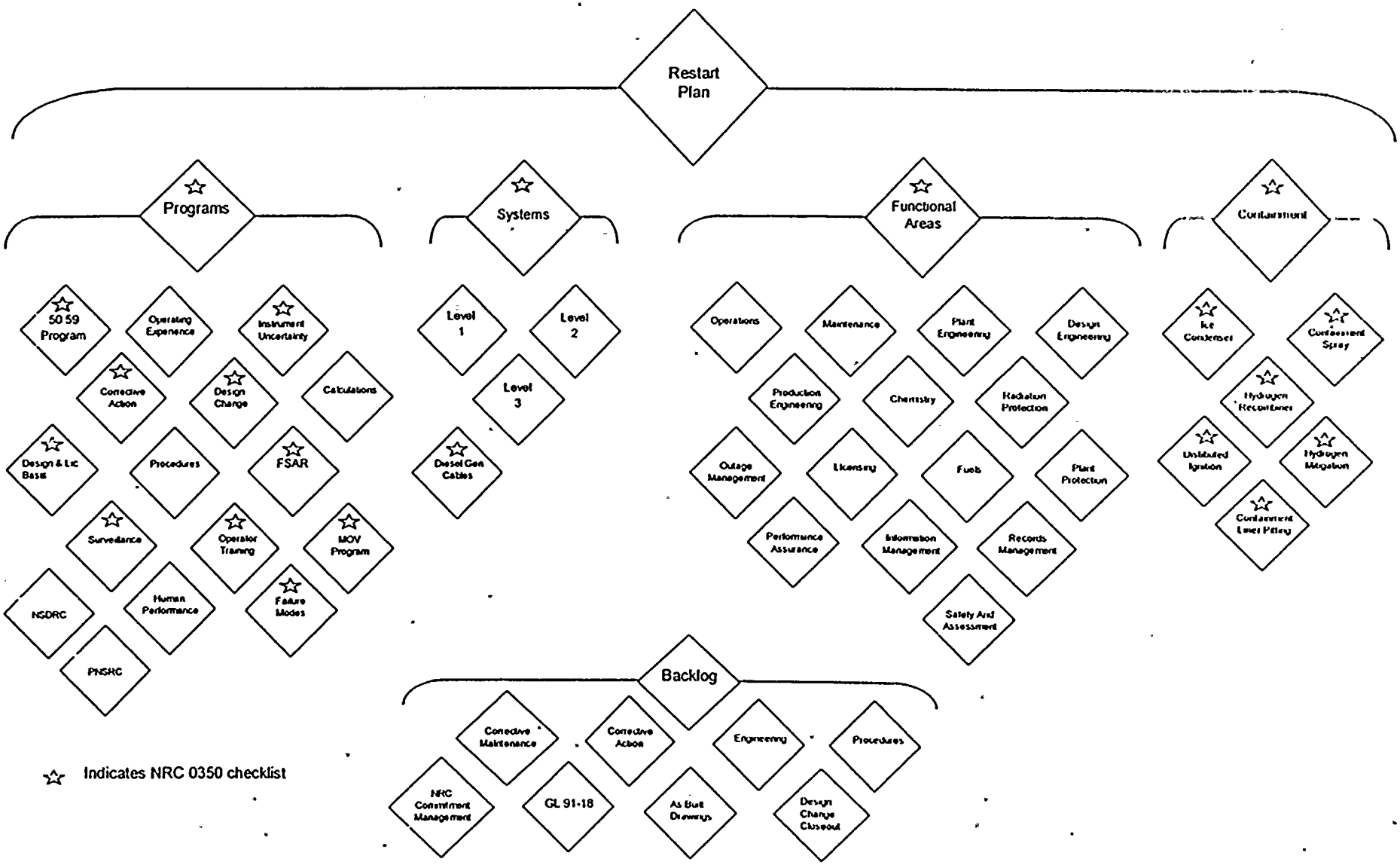
Detailed schedule that includes pre and post restart actions.

Metrics for determining effectiveness of actions. (future assessments, performance measures, field monitoring etc.)

Based on closure requirements

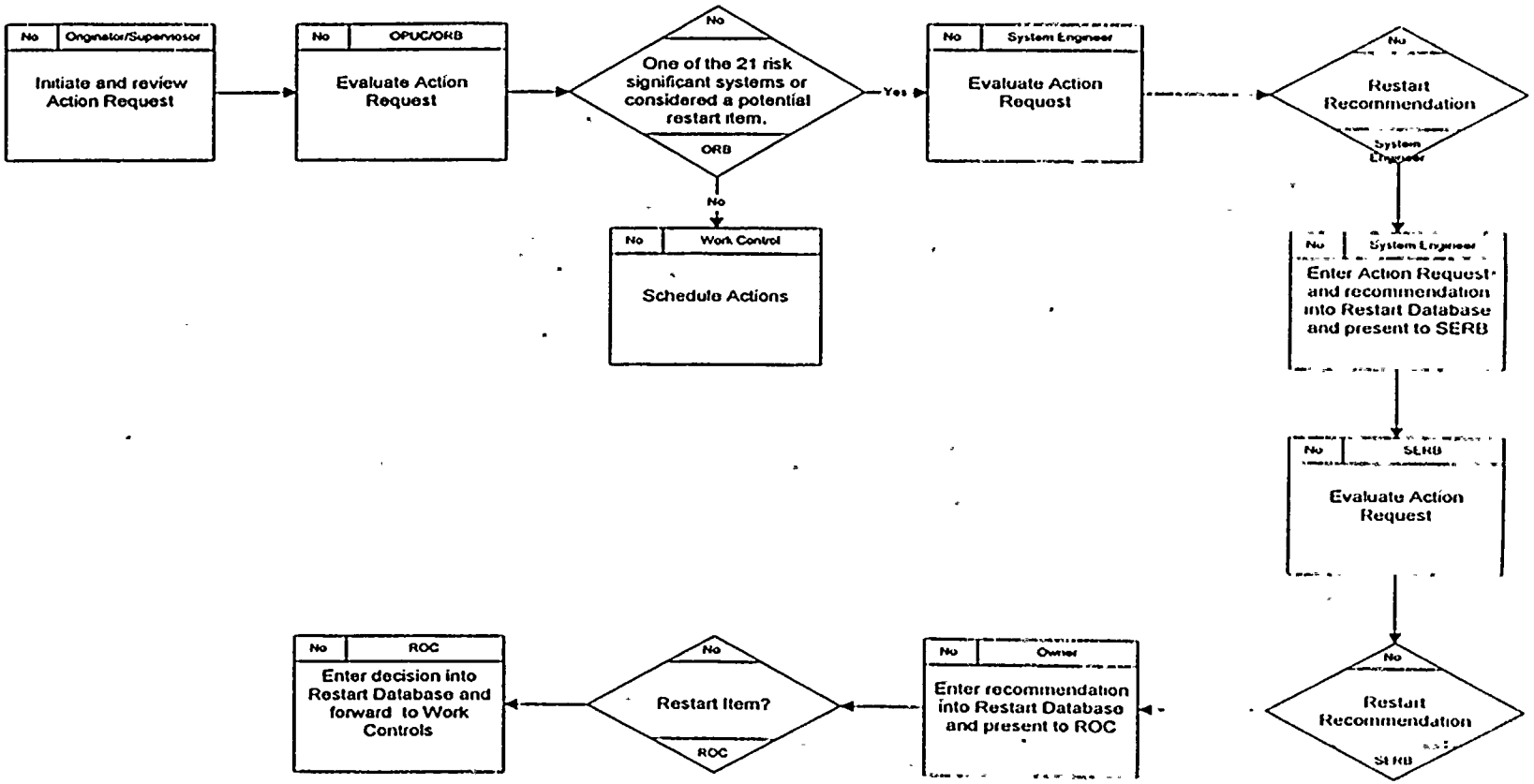
Independent method to confirm actions were effective

Management approval of strategy.

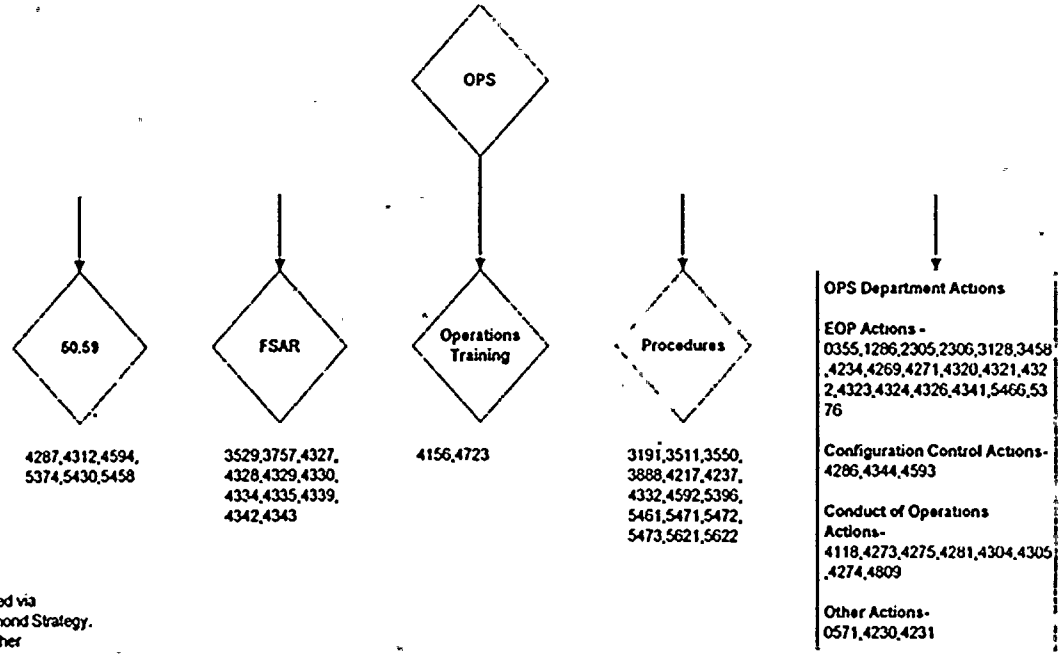

Restart Plan
Programs
50 59 Program
Operating Experience
Instrument Uncertainty
Corrective Action
Design Change
Calculations
Design & Lic Basis
Procedures
FSAR
Surveillance
Operator Training
MOV Program
NSDRC
Human Performance
Failure Modes
PNSRC
Systems
Level 1
Level 2
Level 3
Diesel Gen Cables
Functional Areas
Operations
Maintenance
Plant Engineering
Design Engineering
Production Engineering
Chemistry
Radiation Protection
Outage Management
Licensing
Fuels
Plant Protection
Performance Assurance
Information Management
Records Management
Safety And Assessment
Containment
Ice Condenser
Containment Spray
Hydrogen Recombiner
Ignited Ignition
Hydrogen Mitigation
Containment Liner Plating
Backlog
Corrective Maintenance
Corrective Action
Engineering
Procedures
NRC Commitment Management
GL 91-18
As Built Drawings
Design Change Closeout
Indicates NRC 0350 checklist

ATTACHMENT N

FLOW PATH FOR ACTION REQUEST RESTART CLASSIFICATION



ATTACHMENT O



ATTACHMENT P

RESTART STRATEGY IMPLEMENTATION TEAM (RSIT) OBJECTIVES

The team, collectively and individually, is responsible for completion of the project plan and resolution of the issue, including supporting a successful NRC inspection. This includes accomplishing the items listed below, as directed by the RSO as RSIT leader.

The RSO acts as the project manager and is responsible for strategy implementation and accomplishment of strategy activities within the approved schedule.

- Preparation of an integrated project schedule, including milestones.
- Preparation of a verification plan to confirm restart strategy actions are complete, thorough, and effective.
- Ensure proper representation at strategy meetings and provide accurate status information as required.
- Ensure documentation for closure is correctly implemented and complete for their respective strategy and readily retrievable.
- Ensure no restart impact due to deficiencies found in strategy implementation/closure documentation.
- Ensure prompt communication of implementation problems to the appropriate level of management necessary to achieve resolution.
- Monitor implementation progress and completion of strategy on schedule to support NRC inspection.
- Monitor emerging issues identified by others and assess impact on strategy.
- Promptly communicate team-identified issues that may affect others.
- Ensure supporting documentation for closure is correctly implemented and complete for each respective strategy and that the documentation is readily retrievable.
- Ensure proper metrics are established and maintained that demonstrate effectiveness of strategy implementation.
- Ensure team is adequately prepared for NRC inspection.
- Ensure NRC questions and issues are promptly resolved.

LICENSING REPRESENTATIVE

As a member of the RSIT, the Licensing representative is responsible for the following:

- Review assigned strategy to assure licensing related issues are adequately addressed.
- Provide Licensing support and attend meetings with the NRC on issues related to the strategy.
- Assist the RSO and RSIT members on Strategy Plan questions related to licensing issues.
- Assist the RSO and RSIT members by reviewing the Strategy Plan closure package to assure documentation is complete from a regulatory perspective.
- Provide RSO and RSIT members with NRC inspection requirements and coordinate inspections with RSO.
- Hold pre-inspection meetings to assure that all NGG personnel involved in the strategy inspection activity are fully informed on what can be expected during the NRC Inspection and provide NGG personnel contact, response, and communication expectations.
- Provide updates to RSO and RSIT members on changes to PMP 7200 RST.001 and any interpretations provided by the owner of the procedure.
- Ensure that the NRC Communication Plan is being effectively implemented by all team members.

RESTART PROGRAM TEAM REPRESENTATIVE

As a member of the RSIT, the Restart Team, the Restart Program Team representative is responsible for the following:

- Review assigned strategy to assure Restart Plan requirements are met.
- Provide updates to RSO and RSIT members on new expectations required for the Strategy Plan.
- Provide updates to RSO on Restart Plan changes that affect the Restart Strategy.
- Coordinate revisions of Strategy Plan with RSO.
- Assist RSO in re-formatting Restart Plan Strategy to standardized format.

PERFORMANCE ASSURANCE REPRESENTATIVE

As a member of the RSIT, the Performance Assurance Representative is responsible for the following:

- Review assigned Restart Strategy
- Coordinate with RSO and RSIT members for oversight activities on the Restart Strategy required by the Restart Readiness Verification Plan.
- Perform oversight activities required by the Restart Readiness Verification Plan.

RESTART PROJECT TEAM REPRESENTATIVE

As a member of the RSIT, the Restart Project Team Representative is responsible for the following:

- Review the strategy to assure scheduling requirements are met.
- Assist the RSO and RSIT members in the development of Restart Strategy Project Plan Schedule.
- Assist the RSO with the reporting the status of strategy activities.
- Assist the RSO and RSIT members with the early identification of issues that may impact the successful achievement of project schedules.
- Monitor strategy progress.

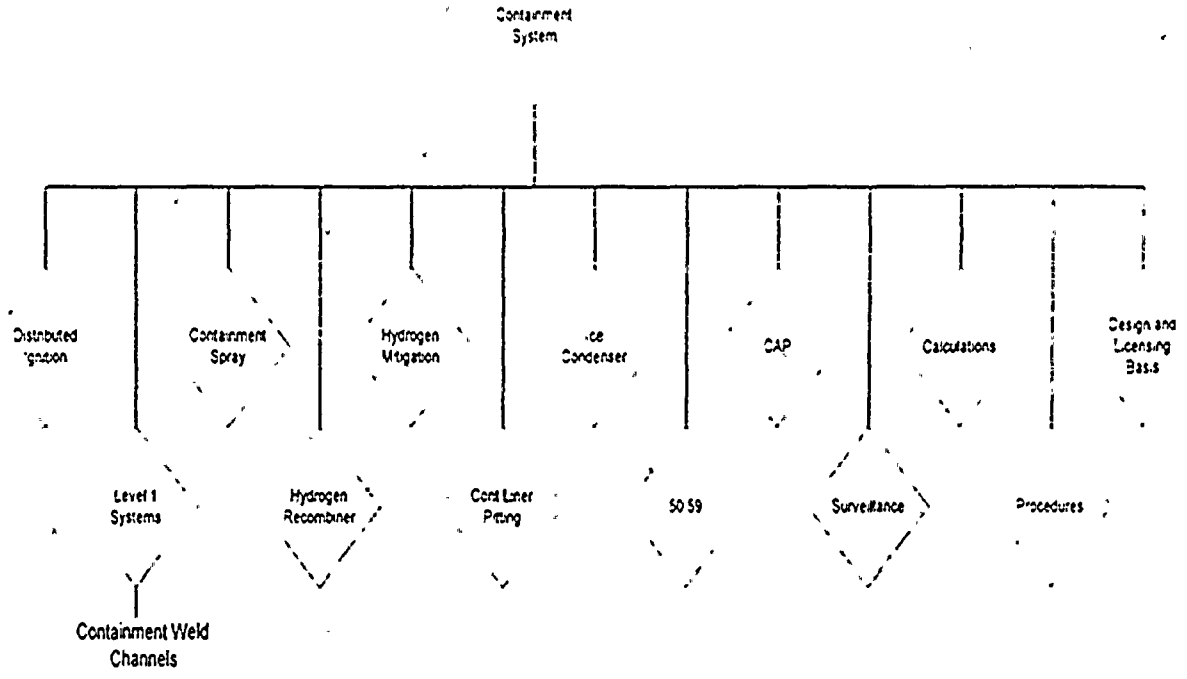
RESTART STRATEGY OWNER

As the leader of the RSIT, the Restart Strategy Owner responsibilities are outlined in Section 1.

RESTART AREA ACCOUNTABILITY MANAGER responsibilities are outlined in Section 1.

ATTACHMENT Q

CONTAINMENT INTEGRATION



Actions to be performed directly under the Containment Systems diamond (none specified)

Specific actions under referenced diamond strategies (not identified)

Containment System Implemenation Map

ATTACHMENT R

VERIFICATION PLAN

Restart Strategy: _____
Restart Strategy Owner: _____
Strategy Restart Number: _____

The Verification Plan consists of the following

1. Method to be used (e. g., Self-Assessment/Third Party Review/ Field Observations/etc.):

2. Scope:

3. Schedule for Verification Plan Implementation:

4. Responsible Person(s) or Organization(s) who will perform verification:

5. Documentation requirements (include implementation and reporting documentation):

6. Applicable procedure(s) (if none, enter NA):

7. Contingency plans to address negative verification results:

Prepared by: _____

Line Manager Review and approval/date: _____

Distribution:

Nuclear Records Management
Restart Program Manager
Restart Program File
Restart Project Manager

ATTACHMENT S

Items to be addressed for Restart Strategy Action Plan/Timelines

(as a Minimum - provide additional detail as required)

Strategy Name: _____	Comments / Description	Addressed Yes/No/NA	Restart Item Number(s)	Start Date	End Date	Progress/% Complete
Schedule Items						
• Restart Items Complete						
• Effectiveness Measures Established						
• Package Closure						
• Independent Assessment						
• SMRT Approval						
• ROC Approval						
• SERB Approval (Systems Only)						
• PA Review						
• LER Closures						
• Inspection Reports						
• NRC Notification of Ready (4 wks prior)						
Integration Items (List)						
• Other Activities:						
Procedures						
Training						
FSAR						
50.59						
Tech Specs						
Calcs						
Mods						
Other (List)						
• Affected Departments						
Provide Resources / ManLoading (for items beyond 10/31):						
Provide Sequences/Logic Ties to other Work:						

Ready for NRC Inspection (Date): _____

Prepared By / Date: _____/_____

Approved (Owner) / Date: _____/_____

ATTACHMENT T

GUIDELINES FOR MAKING DATA ENTRIES INTO THE RESTART DATABASE

CAUTION: Before beginning to enter information into the Restart Database you must know your Source screen selection and ensure the information you are about to enter is complete and accurate.

NOTE: You do NOT have access to input data to all the database screens.

To create a new record you must depress the Add button on the Restart Database screen. Depressing the Add button will cause a Source screen to appear giving you a choice of:

FUNCTIONAL AREA ASSESSMENT
MANAGEMENT REVIEW BOARD
PROGRAMMATIC
SERB
0350

You should highlight your selection and depress OK. Depressing OK creates a new record for you to enter the information into. Once a record is created it cannot be deleted. Your selection on the Source screen will determine which database screen you will use to input your information.

To edit information you must depress the Source button on the Restart Database screen. This will take you to the screen where the information was input.

To ensure the record you are creating is useful, certain information must be provided when the record is created. The record must also be up-dated as additional information becomes available or reviews are conducted. **REQUIRED** fields for the different Restart Database screens are:

Restart Database (1st screen)

RESTART DATABASE section

- **Issue Number** (auto filled when the record is created and cannot be changed)
- **Date Entered** (auto filled when the record is created and cannot be changed)
- **Entered By** (auto filled when the record is created and cannot be changed – this field identifies, by user ID number, the person creating the record)
- **Problem** (this is a double window – the top half is auto filled from the screen you enter the information on; the lower half will allow you to enter comments while in the Restart Database screen)
- **Reference AR#** or **Reference CR#** (copied from the screen you entered the information on)

- **Strategy** (The Strategy button is used to group similar restart issues. When the Strategy button is depressed, a Strategy screen will be displayed. Select the strategy that best describes the problem outlined by your restart item. Depress the Close button to return to the Restart Database screen.)

ROC USE ONLY section

- The ROC USE ONLY section of this screen is completed following the ROC review. You should not make entries in the ROC USE ONLY section.

SERB Screen

System Engineer Input section

- **Issue Number** (auto filled)
- **System** (must be entered when the record is created)
- **Unit** (must be entered when the record is created)
- **Responsible Department** (must be entered when the record is created)
- **Required For Restart** (must be entered when the record is created)
- **Restart Criteria** (must be entered when the record is created if Required For Restart = Y)
- **Mode Constraint** (must be entered when the record is created)
- **Name of Person Reporting Problem** (must be entered when the record is created)
- **Problem** (statement must be entered when the record is created – Action and Result should be entered as the information becomes available)
- **Reference AR#** or **Reference CR#** (must be entered when the record is created - an AR or CR must be completed for each issue)

Review Board (SERB/FARB) section

- **Required For Restart** (must be entered following the review)
- **Restart Criteria** (must be entered following the review)
- **Mode Constraint** (must be entered following the review)
- **Review Date** (must be entered following the review)

Functional Area Assessment Screen

Functional Area Input section

- **Issue Number** (auto filled)
- **Responsible Department** (must be entered when the record is created)
- **Component/System/Functional Area** (must be entered when the record is created)
- **Unit** (must be entered when the record is created)

- **Problem** (statement must be entered when the record is created – Action and Result should be entered as the information becomes available)
- **Reference AR#** or **Reference CR#** (must be entered when the record is created - an AR or CR must be completed for each issue)
- **Responsible Section Supervisor Name** (must be entered when the record is created)
- **Required For Restart** (must be entered when the record is created)
- **Restart Criteria** (must be entered when the record is created if Required For Restart = Y)
- **Mode Constraint** (must be entered when the record is created)

Functional Area Review Board section

- **Required For Restart** (must be entered following the review)
- **Restart Criteria** (must be entered following the review)
- **Mode Constraint** (must be entered following the review)
- **Review Date** (must be entered following the review)

Programmatic Screen

PROGRAMMATIC INPUT

- **Issue Number** (auto filled)
- **Required For Restart** (must be entered when the record is created)
- **Restart Criteria** (must be entered when the record is created if Required For Restart = Y)
- **Mode Constraint** (must be entered when the record is created)
- **Program** (must be entered when the record is created)
- **Problem** (statement must be entered when the record is created – Action and Result should be entered as the information becomes available)
- **Reference AR#** or **Reference CR#** (must be entered when the record is created - an AR or CR must be completed for each issue)
- **Assigned To** (must be entered when the record is created)
- **Department** (must be entered when the record is created)

Management Review Board Screen

Management Review Board section

- **Issue Number** (auto filled)
- **Assigned To** (must be entered when the record is created)
- **Unit** (must be entered when the record is created)
- **Required For Restart** (must be entered when the record is created)
- **Restart Criteria** (must be entered when the record is created if Required For Restart = Y)
- **Mode Constraint** (must be entered when the record is created)
- **Problem** (statement must be entered when the record is created – Action and Result should be entered as the information becomes available)

- **Reference AR#** or **Reference CR#** (must be entered when the record is created - an AR or CR must be completed for each issue)
- **Review Date** (must be entered when the record is created)

Source Document Screen

0350

- **Issue Number** (auto filled)
- **0350 Owner** (must be entered when the record is created)
- **Required For Restart** (must be entered when the record is created)
- **Restart Criteria** (must be entered when the record is created if Required For Restart = Y)
- **Mode Constraint** (must be entered when the record is created)
- **Reference AR#** or **Reference CR#** (must be entered when the record is created - an AR or CR must be completed for each issue)
- **Description** (statement must be entered when the record is created)
- **Source Document Numbers** (must be entered when the record is created)

The Scheduling Form and the Close Out Form are unique screens available to a very limited population. It is expected that all fields, with the exception of the Scheduling Log and Comments Log, will be completed on these screens as the item is worked and closed.

ATTACHMENT U

Restart Plan Revisions

Revision Number	Description	Date
1	Page 26: New page. Added Revision Block.	4/7/98
	Page 8 "Authorize Restart": Deleted Executive Vice President Nuclear Engineering. Added Executive Vice President Nuclear Generation.	
	Pages 20 and 21: Added reference numbers to restart criteria.	
2	Sect 1.3.5: Added Director Regulatory Affairs to SMRT	5/6/98
	Attachment A: Added Preventive Maintenance Manager to SERB charter	
	Sect 1.3.10: Added Plant Performance Assurance responsibilities	
	Added Attachment F, Performance Assurance Oversight Of Restart	
	Index: Added Attachment F	
	Attachment C: Added "operability or regulatory" to level 1 screening. Added 5. Necessary to address regulatory commitments. Added "regulatory" to level 2 screening.	
3	The restart plan was completely revised to provide greater detail and direction to plant personnel for performing restart activities. Included in this revision are: -Restructuring of restart process to reflect the restart process model -Inclusion and expansion of individual and group roles during restart -Addition of restart responsibilities of the CRRT and MRB -Incorporation of NRC 0350 Restart Guidelines -Requirement to develop and process for strategy plans -Addition of management expectations, near and long term activities for restart. -Clarification of criteria 1.3 for classification of issues as restart items.	9/12/98

4	Numerous changes were made for this revision. Significant changes were: -Addition of responsibilities for Restart Strategy Owners, Directors, Restart Item Owners, Performance Assurance roles, Restart Area Accountability Managers, SMRT, PNSRC and NDSRC. -Addition of controls for the restart plan. -Clarification on the requirement for the writing of CRs and ARs for restart items. -Addition of New readiness assessment and 0350 areas. -Clarification on the use of short-term/long-term issues -Clarification on requirements for classifying potential restart items as restart items. -Addition of directions for re-classifying restart items, grouping of restart items, processing restart items that apply to units 1 and 2, and resolving duplicate items: -Addition of directions for the development, approval, and implementation of restart strategies including review, approval, integration, verification and project schedules -Addition of requirements for schedule approval and change. -Clarification of Nuclear Licensing readiness review requirements. -Addition of NSDRC review for restart affirmation. -Establishment of policy for restart plan termination. Creation, deletion or revision of forms and flowcharts to reflect new or revised plan requirements. Numerous editorial changes.	