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CAROLINA POWER & LIGHT COMPANY
BRUNSWICK STEAM ELECTRIC PLANT

PLANT OPERATING MANUAL
VOLUME XVIII

UNIT 0

PROCEDURE TYPE: PLANT NOTICE

PROCEDURE NUMBER: PN-30

PROCEDURE TITLE: INTEGRATED RECOVERY METHODOLOGY

REVISION 2

Approved By: *R. H. Morgan* / *J. M. Brown* 03-07-93 / 3/7/93
Unit 1 Plant Manager / Unit 2 Plant Manager Date

Approved By: *SM* 3/11/93
BNP Site Manager Date

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1.0 PURPOSE

To establish the methodology for the recovery of BNP Units 1 and 2 from the 04/21/92 forced outage to support safe and reliable full power operation. For the unit outages defined as B108P9 and B210P9, this procedure shall take precedence over related BNP procedures that deal with outage scope control.

2.0 REFERENCES

- 2.1 July 23, 1992, Response to NRC Letter of June 23, 1992, Serial NLS 92-160
- 2.2 August 7, 1992, Memorandum to All Brunswick Site Managers and Supervisors from R. A. Watson, "Returning to Service"
- 2.3 August 24, 1992, Memorandum to Site Management Group from R. B. Richey, "Outage Management and Coordination"
- 2.4 September 10, 1992, Memorandum to Site Management Group from R. B. Richey, "Backlog Management During Current Outage"
- 2.5 Integrated Backlog Item Report (as published by Outage Management Planning & Scheduling)
- 2.6 AI-96, Drywell Inspection and PNSC Outage Prestartup Checklist Instruction
- 2.7 PN-31, "Line Management Self-Assessment of Readiness for Restart of BNP Unit 2"
- 2.8 NGG 305-05, "Prioritization Process"

3.0 SCOPE

This methodology for recovery includes the identification, compilation, categorization, integrated scheduling control, and completion of open items.

This procedure provides a detailed mechanism to document system engineering review of the open items to support system readiness. The methodology for the outage scope control of the Integrated Startup Schedule is established by this procedure.

The startup review process detailed by this procedure addresses plant hardware related-issues. Organizational readiness is assessed via PN-31, "Line Management Self-Assessment of Readiness for Restart of BNP Unit 2".

4.0 DEFINITIONS

Terms defined within this section appear in bold-face throughout this procedure.

4.1 Added Work

For the purpose of this procedure, the term added work is used to identify work items that are not considered emergent work but yet require addition to the outage scope after the Outage Scope Freeze Date. The following examples are considered added work:

- A PRE-9/26 open item that was originally coded as RESCH by the System Engineer that is subsequently changed to a NEED.
- A POST-9/26 open item that was not coded by Operations with a 1SU or 2SU designator, that a System Engineer subsequently wants added to the outage scope.
- A non-IBIR open item, such as a plant modification, that a System Engineer wants to add to the outage scope.

4.2 Backlog Review Freeze Date: This date defines the separation date in which Reference 2.1, Enclosure 2, methodology shall be terminated for processing our items in accordance with the July 23, 1992, response letter to the NRC. This date has been established as September 26, 1992. Work items identified before September 26, 1992, are commonly referred to as "PRE-9/26 Open Items".

4.3 Emergent Work

For the purpose of this procedure, the term emergent work is used to identify all new work items that have yet to be screened and scheduled.

4.4 Integrated Backlog Item Report (IBIR)

The IBIR is a computer printout produced by the ARTEMIS Computer System that details certain specific open items by system number. The IBIR database provides a listing for categorization and for establishing other schedule coding as identified in this procedure.

The IBIR contains the following specific items:

- Corrective WR/JOs
- Backlogged Preventive Maintenance (PM) WR/JOs
- Temporary Conditions (TC)
- Temporary Caution Tags (TCT)
- RTGB Deficiencies
- Disabled Annunciators
- Hotside/Coldside Inspection Findings
- Open Engineering Work Requests (EWR)
- Engineering Evaluation Report (EER) Actions Items
- Technical Support FACTS Action Items

The IBIR removes the majority of duplication between WR/JOs and the remaining other backlog types (e.g., a plant deficiency having both an outstanding WR/JO and an associated Temporary Condition).

4.5 Integrated Startup Schedule: A management tool providing a common, all-inclusive schedule, directing performance of the majority of BNP activities and resources relative to the recovery of Units 1 and 2 from current conditions to safe and reliable full power operations. The Integrated Startup Schedule is developed and maintained by Integrated Planning & Scheduling.

4.6 Open Items: Items that have the potential to affect component, subsystem, or system operations that must be evaluated and dispositioned. Examples of open items are contained in Attachment 1.

- 4.7 Operator Workarounds: Additional work or compensatory actions (excluding response to an initial equipment failure or event) that must be taken to:

- Sustain production availability or capacity
- Maintain ECCS reliability
- Comply with active or tracking LCO action statements
- Protect plant equipment
- Obtain or verify operation indications or information
- Control radwaste leakage
- Practice ALARA
- Perform any operations task

Operator Workarounds are measured by the number of RTGB indicator deficiencies, old clearances, caution tags, old LCOs, disabled annunciators, jumper/wire removals, and increased frequency surveillances.

- 4.8 Outage Scope Freeze Date: This date defines the point in time when the outage scope additions/deletions become strictly controlled. The Outage Scope Freeze Date has been established as November 17, 1992.

4.9 Schedule Impact

The term schedule impact applies to changes that affect the critical path, a system window milestone completion, or a resource required to support schedule completion.

4.10 Scope Addition

Items that are new, unscheduled work resulting from equipment malfunctions found during conduct of maintenance, inspections, testing and engineering evaluations or items that may have existed prior to the outage which were omitted during the outage scope development.

4.11 System Readiness Review

The process whereby System Engineers ensure the readiness of their assigned system by review of the IBIR and other outstanding engineering/hardware-related issues.

4.12 System Readiness Review Package (SRRP)

The System Readiness Review Package is the collection of documents used to confirm that a system is ready to support startup and that remaining open items have been properly reviewed and dispositioned. The SRRP is developed by the System Engineer and is reviewed by the BRC, PNSC and BNP Site Manager (as required) for PRE-9/26 open items.

4.13 Urgent Work

The term urgent work is used to identify any work item that is of such a critical nature that Operations directs the work activity to begin before Integrated Schedule inclusion. Urgent work items include imminent personnel safety issues, actions in response to short-term LCOs, actions to maintain safety system operability, work items to correct significant operator distractions, and new work items that directly support critical path activities.

5.0 RESPONSIBILITIES

5.1 BNP Site Manager

Responsible for review, approval, and implementation of this procedure and all revisions thereto.

5.2 Unit 1 Plant Manager / Unit 2 Plant Manager

Responsible for approving the post-startup reschedule of PRE-09/26 open items and restart of their respective unit as Chairman of the PNSC.

5.3 Unit 1 Operations Manager / Unit 2 Operations Manager

Responsible for maintaining a prioritized composite listing of Operator Workarounds for their respective unit.

5.4 Manager - Technical Support

Responsible for ensuring System Readiness Reviews are completed by the System Engineer in accordance with this procedure and presented to the Backlog Review Committee (BRC) and the Plant Nuclear Safety Committee (PNSC) as required for PRE-9/26 open items.

5.5 Plant Nuclear Safety Committee

Responsible for review and approval of PRE-9/26 IBIR open items that will not be completed prior to startup as detailed later in this procedure. The PNSC secretary is responsible for forwarding completed System Readiness Review Packages to the BNP Site Manager and to Integrated Planning & Scheduling for post-startup implementation or pre-startup implementation.

The PNSC shall screen for implementation or rescheduling based on nuclear safety implications.

The PNSC has additional post-outage startup responsibilities delineated in AI-96, Drywell Inspection and PNSC Outage Prestartup Checklist Instruction.

5.6 AD HOC Screening Committee (AHSC)

The AHSC is a subcommittee of the PNSC and is composed of the Manager - Mechanical Maintenance, Manager - Shift Technical Advisor (STA), and Manager - BOP Systems. Alternates may be recommended by primary members and approved by the pertinent Unit 1 Plant Manager / Unit 2 Plant Manager.

The AHSC is responsible for:

5.6.1 Validating PRE-9/26 category 7 coding as defined in Attachment 7.

5.6.2 Identifying PRE-9/26 categories 7a and 7b activities to be included in the Integrated Startup Schedule.

5.7 Backlog Review Committee (BRC)

The BRC is a subcommittee of the PNSC and is composed of the following representatives: OM&M - Planning and Scheduling,

Manager - Nuclear Systems - Technical Support, Operations (SRO), NED Manager, Manager - Mechanical Maintenance, and an advisor from the General Electric Company. Alternates may be designated by primary members and approved by the pertinent Unit 1/2 Plant Manager. A BRC quorum is defined as a minimum of four representatives, including Operations.

The BRC is responsible for the review of PRE-9/26 open items as follows:

- 5.7.1 Ensuring System Engineer's System Readiness Review Package is developed and processed in accordance with Section 6 and Attachment 7 of this procedure.
- 5.7.2 Providing feedback to the System Engineer and rescheduling subsequent meetings to ensure additional requested technical input is included as required by the BRC.
- 5.7.3 The BRC is established only for the purpose of the initial review of PRE-9/26 category 2-6 open items.

5.8 Integrated Planning & Scheduling

Integrated Planning & Scheduling is composed of the Manager - Integrated Planning and Scheduling, the Manager - Site Work Force Control Group, and Operations (SRO) (or their alternates).

Integrated Planning & Scheduling is responsible for:

- 5.8.1 Scheduling PRE-9/26 work items as dictated by the system readiness review process described herein.
- 5.8.2 Integrating the initial Operation's screen of POST-9/26 WR/JO-related items into the schedule.
- 5.8.3 Control of the Integrated Startup Schedule (outage scope) in accordance with this procedure.

5.9 System Engineer

- 5.9.1 Responsible for screening PRE-09/26 work items listed on the IBIR in accordance with Figure 1 and development of the System Readiness Review Package (SRRP) as designated in Attachments 2, 3, and 4.
- 5.9.2 Responsible for screening POST-09/26 work items listed on the IBIR in accordance with Figure 2.
- 5.9.3 Responsible for ensuring that all work items needed for startup are identified to Integrated Planning & Scheduling. This applies to both IBIR listed work items and non-IBIR work items (plant modifications, etc.).
- 5.9.4 Responsible for review of non-IBIR based open issues that could impact system readiness, such as pending plant modifications, unanswered Technical Support Memorandums (TSMs), etc.
- 5.9.5 Responsible for ensuring that system outage scope additions and deletions are initiated/processed as required by this procedure.

- 5.9.6 Responsible for evaluating the integrated effects of work and/or engineering issues on the system and developing justifications to include or reschedule work items based on nuclear safety and reliability.
- 5.9.7 Responsible for presentation of the System Readiness Review Package to the BRC as scheduled with subsequent presentations to the PNSC (as required).
- 5.9.8 Responsible for monitoring completion of startup items.
- 5.9.9 Responsible for monitoring the scheduling and completion of backlog items.
- 5.9.10 Responsible for the reviews identified on the Final System Readiness Review Form (Attachment 4) prior to startup.

6.0 INSTRUCTIONS

6.1 System Review and Schedule Control Process Overview

Reference 2.1 provided a detailed process for how PRE-9/26 open items would be reviewed and scheduled. This process involves assignment of category numbers (per Attachment 7) to open items and then a comprehensive review of the Category 2-6 open items that were not expected to be completed prior to startup. Category 1 items are required for startup, while Category 7 items are considered post-startup. To ensure Category 7 items were properly categorized, an AD HOC Screening Committee was formed to validate the category assignments.

The comprehensive review of the Category 2-6 items not expected to be completed prior to startup is accomplished by the Backlog Review Committee and the Plant Nuclear Safety Committee. BNP Site Manager approval is subsequently required to place the PRE-9/26 open item in the backlog for post-startup completion. This process is amended via Revision 2 of this procedure to require PNSC review/recommendation for only nuclear priority 1 - 4 open items to be rescheduled. In addition, Site Vice-President approval is required for nuclear priority 1-4 open items on the systems identified in Attachment 8. The review and approval levels for outage scope deletions are summarized in Attachment 9.

The collection of documents to process this PRE-9/26 open item review is referred to as the System Readiness Review Package (SRRP) and contains "exception forms" (Attachment 3) for any Category 2-6 item to be completed post-startup. The traveler for the SRRP (Attachment 2) also contains System Engineer's acknowledgement of reviews for non-IBIR open items.

The initial scope for the Integrated Startup Schedule is formed by this PRE-9/26 open item review/exception process.

On September 26, 1992, the original review/exception process (dictated by reference 2.1) was discontinued and superseded with new processes as detailed by this procedure. Emergent work items initiated after September 26, 1992 are commonly referred to as POST-9/26 open items.

After September 26, 1992, System Engineers continue to categorize emergent work items but do not complete exception forms for those

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items that are not scheduled for pre-startup. The Final System Readiness Review (Attachment 4) assures final assessment of system readiness and considers backlog additions and/or changes since the September 26, 1992 date.

Deletions from the outage scope (Attachment 5) of either PRE-9/26 or POST-9/26 items are controlled to ensure that proper reviews of system readiness are completed. Following BRC reviews, the System Engineer(s) and Operations Engineer shall review and process all outage scope deletions, followed by the applicable Unit 1/2 Plant Manager, PNSC and BNP Site Manager review/approval. These reviews ensure that system readiness is maintained while accommodating outage scope deletions for schedule validation.

The Outage Scope Freeze Date, November 17, 1992, is the date at which regimented processes become effective to provide strict control of outage scope. Upon issuance of revision 1 to PN-30, additional outage scope additions and deletions are made as described herein. Any additions to the outage scope reflected in the Integrated Startup Schedule made prior to this procedure revision are considered official, irrespective of what process added the outage work scope.

System Engineer recommended outage scope additions and deletions are accomplished within a controlled process (Figure 2) to ensure outage scope control and schedule integrity. Operations makes an initial screen of emergent WR/JOs and determines whether to add to the outage scope or reschedule for post-startup. This initial screen is followed by a System Engineer review to add emergent work to the outage scope. If the outage scope addition has significant schedule impact (per a schedule analysis by Outage Management), then additional approvals are required by the pertinent Unit 1/2 Plant Manager and BNP Site Manager for schedule inclusion (Attachment 6).

Added work additions to the outage scope are also subject to the controlled process (Figure 2) to ensure scope control and schedule integrity. Approved changes to the outage scope are then made to the Integrated Startup Schedule.

Summarizing, PRE-9/26 and POST-9/26 open items are reviewed, dispositioned, and scheduled by different processes (Figure 1 and 2). However, once in the Integrated Startup Schedule, they can only be removed via a common deletion process. These processes provide a common strict outage scope control until the Final System Readiness Reviews are completed by the System Engineer. The processes establish the comprehensive technical basis for system readiness to support startup. The reviews of outage scope additions/deletions and backlog changes since the SRRP approval protect the technical basis throughout execution of the Integrated Startup Schedule.

The following sections provide specific details on implementation of the System Engineer review and integrated scheduling processes described by this "overview" and are divided as follows:

- System Engineer Review Scope
- IBIR Categorization and Coding
- SRRP Preparation / Documentation
- SRRP Review and Approval Process
- SRRP Revisions
- Outage Scope Deletions

- PRE-9/26 Open Item Review Process
- POST-9/26 Emergent Item Review Process
- Integrated Startup Schedule Scope Control Methodology
- Final System Readiness Assessment

6.2 System Engineer Review Scope

6.2.1 Prior to startup, the responsible System Engineer shall review open items on the system. Open items will be documented in accordance with this procedure. In this review, the System Engineer must consider the following three sources of relevant system information:

- Integrated Backlog Item Report (IBIR) open items
- Non-IBIR based engineering/hardware issues
- Emergent issues not yet captured by IBIR and/or other routine work processes

Note: As detailed under section 4.4 of this procedure, the IBIR contains specific information related to hardware and/or engineering issues on a system.

6.2.2 The non-IBIR based information that must be considered by the System Engineer to ensure a complete review include:

- Pending Plant Modifications (PMs)
- Unanswered Technical Support Memorandums (TSMs)
- Outstanding NED "Blue Memos"
- Outstanding Direct Replacements (not captured by an EWR listed on the IBIR)
- Outstanding Equipment Decommissioning Packages (EDPs; not captured by an EWR listed on the IBIR)
- Non-FACTS Technical Support Action Items

6.2.3 The System Readiness Review Traveler (Attachment 2) shall be used to document the System Engineer's review of the non-IBIR open issues.

6.2.4 Emergent issues that invalidate previously considered open items on the IBIR shall be identified to the BRC/PNSC (as applicable) by the System Engineer and the appropriate outage scope addition/deletion form generated.

6.3 IBIR Categorization and Coding

6.3.1 The IBIR categorization and coding process supports the control of the Integrated Startup Schedule scope associated with hardware corrective actions. The IBIR startup-related codes to be used in the Integrated Planning & Scheduling process are as follows:

<u>Category #</u>	<u>Code</u>	<u>Remarks</u>
1	PRE	Automatically coded by ARTEMIS to indicate completion required prior to startup
2-6 (PRE-9/26)	NEED	Indicates System Engineer technical assessment that completion would enhance the technical performance of the system from an availability or reliability perspective.

2-6 (PRE-9/26)	RESCH	Indicates System Engineer supports post-startup completion of the item and completes the required Exception form.
2-6 (POST-9/26)	NEED	Indicates that a 1SU or 2SU designator has been assigned to the associated WR/JO (or other work item type) for completion prior to startup.
2-6 (POST-9/26)	RESCH	Indicates that a 1SU or 2SU designator has <u>not</u> been assigned to the associated WR/JO (or other work item type) for completion.
7, 7a	POST	Automatically coded by ARTEMIS to indicate post-startup completion.
7b	NEED	Technically qualifies as a 7 but by its unique nature should be worked prior to startup.

The categorization screening criteria is detailed in Attachment 7 of this procedure.

ARTEMIS codes new items with a leading asterisk (*) for WR/JO-related open items with an "initiation date" of after September 26, 1992 (i.e., POST-9/26).

6.3.2 System Engineers review the routine updates of the IBIR and categorize new work items. The categorization process continues for emergent work until unit startup to provide for a continuous characterization of the system's backlog.

6.3.3 The PNSC Secretary shall transmit the PNSC-approved changes recommended for PRE-9/26 open items (i.e., change a PRE-9/26 open item from a NEED to RESCH) to Integrated Planning & Scheduling for IBIR update and schedule revision.

6.4 SRRP Preparation / Documentation

6.4.1 The System Engineer will review open items and develop a SRRP for presentation to the BRC and subsequent PNSC review (as applicable). The SRRP shall include:

- Integrated Backlog Item Report (IBIR)
- System Readiness Review Traveler (Attachment 2)
- Request for Pre-Startup Corrective Action Exception Form(s) (Attachment 3)

6.4.2 The System Readiness Review Traveler shall be used by the System Engineer to document review of the non-IBIR open items.

6.4.3 Exception Forms are required for all PRE-9/26 IBIR open items that are category 2-6 that are not expected to be completed prior to unit startup. The System Engineer shall

ensure that the necessary exception forms are included in the SRRP.

6.4.4 Multiple open items can be documented on a single Exception Form if the integrated effects do not render the system unfit for startup. Examples of open backlog items that can be combined for evaluation must meet all of the following criteria:

- common system
- same category
- same issue or problem
- common basis for rescheduling

6.5 SRRP Review and Approval Process

6.5.1 The BRC shall coordinate evaluations of the SRRP as presented by the System Engineer according to the guidance in Attachments 2, 3, and 4. The SRRP is then presented to the PNSC for review as required by Attachment 9..

6.5.2 The recommendation of the PNSC and pertinent Unit 1/2 Plant Manager will then be forwarded to the BNP Site Manager for his review and approval as required by Attachment 9.

6.5.3 To ensure that all non-IBIR open items have been reviewed, all systems must be considered for startup readiness. This review is required whether or not the system has any PRE-9/26 open item exception forms.

6.5.4 PRE-9/26 open items with a category 2-6 that are not expected to be completed prior to startup must have either:

- An exception form (Attachment 3) completed by the System Engineer and recommended by the BRC to the PNSC (as required by Attachment 9)

OR

- An "Outage Scope Deletion" form (Attachment 5) developed/recommended by the System Engineer and Operations Engineer as summarized in Attachment 8.

6.5.5 If the required review groups/management concur that the SRRP open items can be rescheduled, the items are forwarded to Integrated Planning & Scheduling. If these review groups/management do not concur that the SRRP open items can be rescheduled, then the items shall be referred to the BRC (or System Engineer/Operations Engineer as appropriate) for additional review or forwarded to Integrated Planning & Scheduling for work.

6.5.6 The original evaluation forms shall be collected by the PNSC secretary and transmitted to the vault for filing.

6.6 SRRP Revisions

6.6.1 Copies of previously approved exception forms may be used in the development of a new SRRP provided that new open items do not invalidate the justification for the previously approved exception. Revised SRRPs supersede any previously approved SRRPs on a system.

6.6.2 SRRP revisions are not required to reflect approved Outage Scope Addition/Deletion Form changes (Attachments 5 and 6). The System Engineer will consider these as part of their Final System Readiness Review (Attachment 4) deliberations.

6.7 Outage Scope Deletions

6.7.1 Outage scope deletions for both PRE-9/26 and POST-9/26 category 2-6 work items coded as NEED by the System Engineer are accomplished via Attachment 5, Outage Scope Deletion Form. This form is originated by a System Engineer and requires concurrence by an Operations Engineer. The form is then routed to the applicable Unit 1/2 Plant Manager, PNSC and BNP Site Manager for review and approval as summarized in Attachment 9. Note that the required reviews and approvals are dependent upon the nuclear priority assigned to the open item and the system affected by the item.

6.7.2 Items that are deleted from the pre-startup Integrated Startup Schedule are rescheduled for completion by Integrated Planning & Scheduling.

6.7.3 The following guidance shall be used by the System Engineer and Operations Engineer in their recommendations to reschedule an open item:

- The item is not needed to comply with the Brunswick Plant Technical Specifications.
- The consequences of not completing the work item would not affect the ability of any safety system to satisfy its design function.
- The result of not completing the work is not likely to result in reduced safety system availability, increased forced outage rate, or reduced capacity factor in the time frame before it is completed or resolved.
- The item does not adversely affect nuclear safety.

6.7.4 Outage scope deletions consider current plant status and startup schedules, and whether these items may be rescheduled after startup to better utilize existing resources to complete high priority work.

6.7.5 The System Engineer responsible for the item(s) will validate the appropriateness of the priority assigned to the work activity and provide the Operations Engineer and Unit 1/2 Plant Manager with the necessary background information to make the approval decisions detailed above.

6.7.6 For both PRE-9/26 and POST-9/26 open items, the Outage Scope Deletion Form (Attachment 5) shall be used for the deletion of an item that is in the Integrated Startup Schedule.

6.7.7 Approved scope deletions shall be reflected in the IBIR and transmitted to Integrated Planning & Scheduling (and a copy to the pertinent System Engineer).

6.8 PRE-9/26 Open Item Review Process

6.8.1 Figure 1 depicts the review process for PRE-9/26 IBIR open items. The System Engineers provide category numbers and delineate all PRE-9/26 category 2-6 items as "NEED" or "RESCH" per section 6.3. The System Engineer develops exception forms (Attachment 3) for PRE-9/26 category 2-6 open items not needed to be completed prior to startup.

6.8.2 Any changes to the System Engineer's category numbers and coding annotations shall be made to the IBIR database following reviews of the BRC, PNSC and/or BNP Site Manager (as applicable).

6.9 POST-9/26 Emergent Item Review Process

6.9.1 For emergent WR/JO (and related backlog items, such as an EWR, Temporary Condition, etc.) Operations makes the initial screen on whether the item should be completed prior to startup. WR/JO-related items will be assigned startup codes via AMMS using the 1SU or 2SU designator.

6.9.2 All POST-9/26 emergent work items (both IBIR based and non-IBIR based) are subsequently reviewed by System Engineers. Items which the System Engineers deem necessary to be completed/resolved prior to startup must be identified for schedule inclusion by the System Engineer in accordance with Figure 2.

6.9.3 POST-9/26 emergent work items shall be categorized by the System Engineers.

6.9.4 Non-WR/JO item startup codes may be assigned by the System Engineer as deemed pertinent.

6.10 Integrated Startup Schedule Scope Control Methodology

6.10.1 PRE-9/26 IBIR open items coded as NEED by the System Engineers before the Outage Scope Freeze Date are automatically included in the Integrated Startup Schedule.

6.10.2 PRE-9/26 IBIR open items determined to be a NEED by the System Engineer after the issuance of Revision 1 to this procedure are considered Added Work. An Outage Scope Addition Form (Attachment 6) as depicted in Figure 2 is required for addition of added work items into the schedule.

6.10.3 During the initial screen of emergent work POST-9/26 WR/JOs, Operations may add directly into the Integrated Startup Schedule open items determined to be urgent work and required for completion prior to startup. All other emergent POST-9/26 WR/JO-related open items required to be completed prior to startup will be coded as 1SU or 2SU in AMMS and an Outage Scope Addition Form submitted. Urgent and 1SU and 2SU designations by Operations may be based upon judgement and/or prioritization codes.

6.10.4 System Engineers will make a second screening per their daily reviews. All non-urgent emergent work and

added work open items being requested for addition to the outage scope will be submitted by the System Engineer on an Outage Scope Addition Form for management consideration of schedule impact in accordance with Figure 2.

- 6.10.5 The Outage Manager shall indicate the levels of approval necessary based on schedule impact determined from the schedule analysis. Outage Scope Addition Forms will be routed for management approval(s) based on schedule impact of the emergent or added work item. Non-impact work items and Maintenance fill-in work may be added directly to the Integrated Startup Schedule by the Outage Manager without additional management approval.
- 6.10.6 The Outage Manager shall have the authority to place into the Integrated Startup Schedule any NEED that has critical path schedule impact. For these items, the completion of the Outage Scope Addition Form and approvals may follow the scheduling of the item(s).
- 6.10.7 Non-WR/JO related items that are considered pre-startup by the System Engineer and do not have field activities (such as review/disposition of a Technical Support FACTS item) may be identified as NEED by the System Engineer without Integrated Startup Schedule inclusion. In this case, an Outage Scope Addition Form shall not be necessary.
- 6.10.8 POST-9/26 work items shall only be deleted from the Integrated Startup Schedule scope (or rescheduled post-startup) via Attachment 5, Outage Scope Deletion Form.

6.11 Final System Readiness Assessment

- 6.11.1 Prior to startup, the assigned System Engineer shall make a final determination of startup readiness by review of outstanding open items on their systems. The System Engineer will document this final review by completion of the "Final System Readiness Review" form (Attachment 4). This form requires System Engineer sign-off that all IBIR open items have been properly dispositioned and that non-IBIR open items have also been reviewed to assure startup readiness. This cumulative review prior to startup shall include PRE-9/26 and POST-9/26 open items, their disposition, and system operability status with regard to outstanding items.
- 6.11.2 After review and approval of the "Final System Readiness" for a system, any subsequent emerging work will be prioritized in accordance with normal BNP procedures.
- 6.11.3 Non-system related items (commitments, etc.) shall be presented by their specific sponsors in accordance with AI-96, "Drywell Inspection and PNSC Outage Prestartup Checklist Instruction" (e.g., Manager - Regulatory Compliance for status of regulatory commitments).

- 6.11.4 A senior management assessment is completed per the requirements of PN-31, "Line Management Self-Assessment of Readiness For Restart of BNP Unit 2".
- 6.11.5 Prior to requesting startup, the Unit 1 Plant Manager / Unit 2 Plant Manager shall confirm to the BNP Site Manager that PRE-9/26 and POST-9/26 open items have been properly reviewed and dispositioned.

7.0 FIGURES

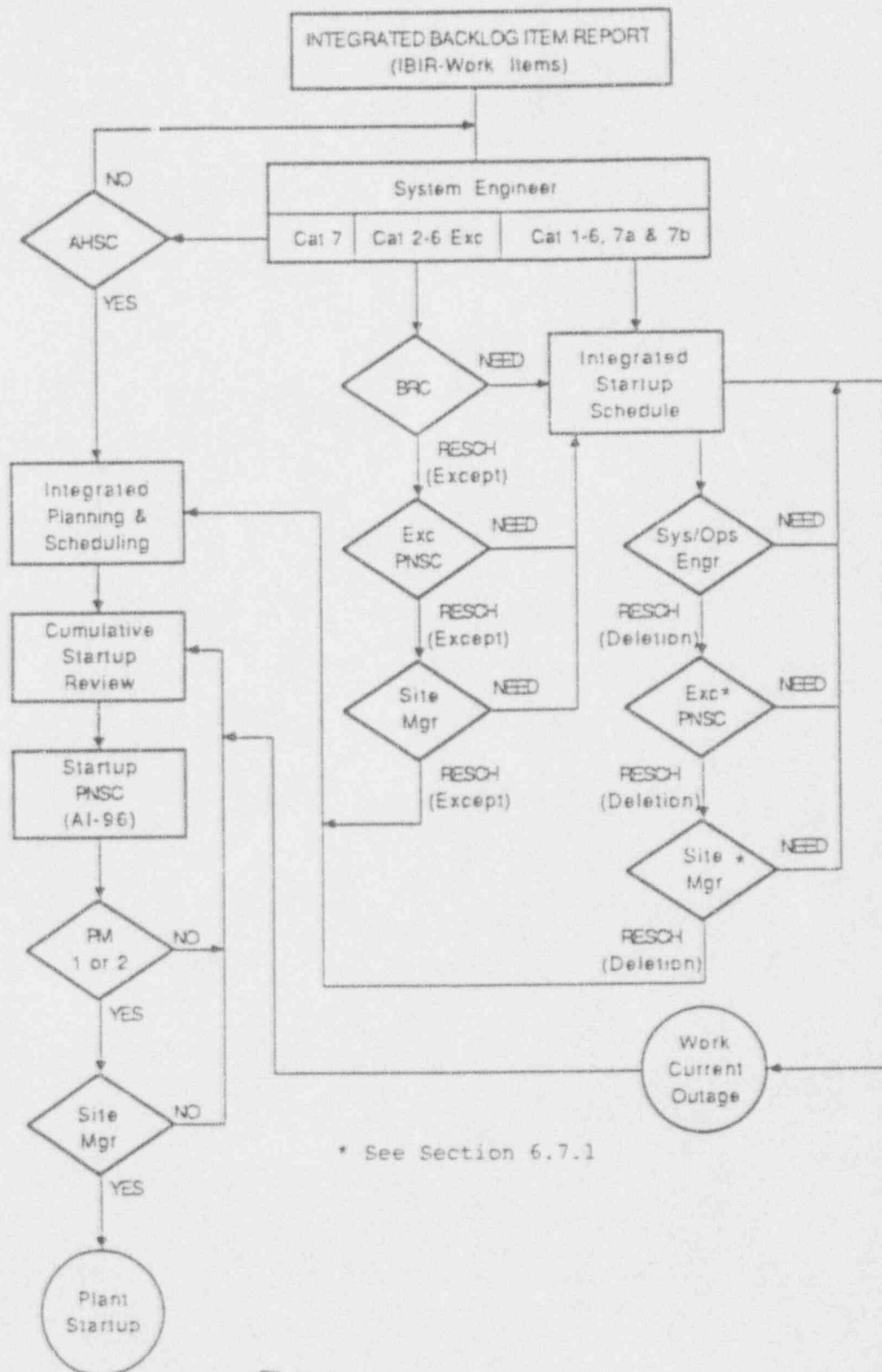
- 7.1 Figure 1, Evaluation Flow Chart Pre-09/26/92
- 7.2 Figure 2, Evaluation Flow Chart Post-09/26/92

8.0 ATTACHMENTS

- 8.1 Attachment 1, Examples of open items
- 8.2 Attachment 2, System Readiness Review Traveler
- 8.3 Attachment 3, Request For Pre-Startup Corrective Action Exception
- 8.4 Attachment 4, Final System Readiness Review
- 8.5 Attachment 5, Outage Scope Deletion
- 8.6 Attachment 6, Outage Scope Addition
- 8.7 Attachment 7, Open Item Categories
- 8.8 Attachment 8, Focus Systems
- 8.9 Attachment 9, Outage Scope Deletion Process, Review and Approval Requirements Matrix

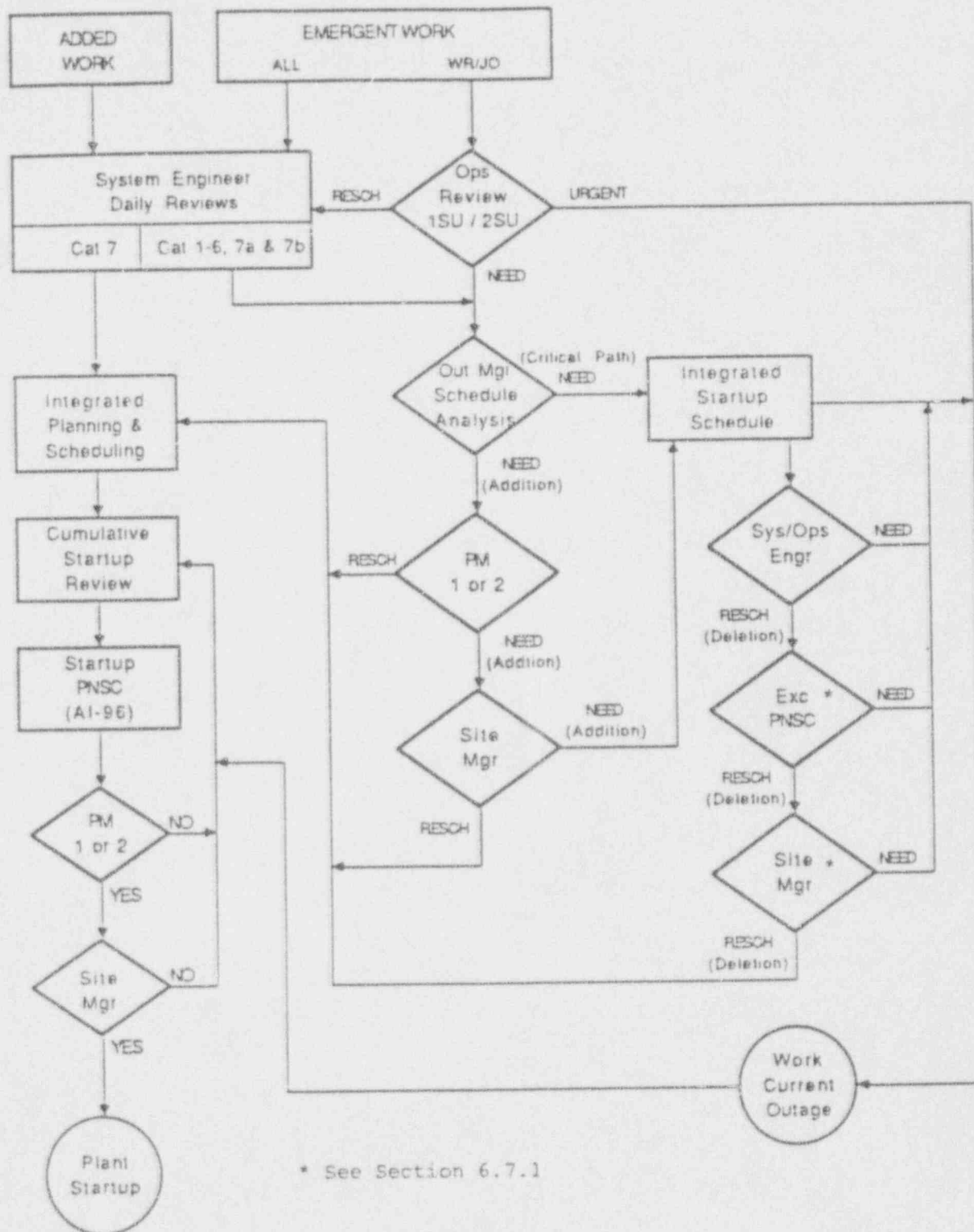
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FIGURE 1
Pre-09/26/92 Item Evaluation



* See Section 6.7.1

FIGURE 2
Post-09/26/92 Item Evaluation
& Schedule Scope Control



EXAMPLES OF OPEN ITEMS

- * Corrective WR/JOs
- * Backlogged Preventive Maintenance (PM) WR/JOs
- * Temporary Conditions (TC)
- * Temporary Caution Tags (TCT)
- * RTGB Deficiencies
- * Disabled Annunciators
- * Hotside/Coldside Inspection Findings
- * Open Engineering Work Requests (EWR)
- * Engineering Evaluation Report (EER) Actions Items
- * Technical Support FACTS Action Items
 - Pending Plant Modifications (PMs)
 - Unanswered Technical Support Memorandums (TSMs)
 - Outstanding NED "Blue Memos"
 - Outstanding Direct Replacements (not captured by an EWR listed on the IBIR)
 - Outstanding Equipment Decommissioning Packages (EDP) (not captured by a IBIR EWR)
 - Non-FACTS Technical Support Action Items
 - Instrument Rack Replacement/Refurbishment Items
 - Miscellaneous Steel Walkdown Items
 - Miscellaneous Wall Items
 - LCOs
- ** Technical Specification Surveillance Testing
- ** Commitments
- ** Preventive Maintenance Activities

Notes

- * Contained in the IBIR
- ** Items will be included in the Integrated Startup Schedule as appropriate but not necessarily reviewed by the BRC.

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SYSTEM READINESS REVIEW TRAVELER

 SYSTEM ID #
 SYSTEM NAME

UNIT #

SYSTEM ENGINEER REVIEW SUMMARY *(The System Engineer shall initial each item below to confirm that the required reviews have been completed)*

_____ IBIR open items (including the proper dispositioning of open items)
 _____ Pending Plant Modifications (PMs)
 _____ Unanswered Technical Support Memorandums (TSMs)
 _____ Outstanding NED "Blue Memos"
 _____ Outstanding Direct Replacements (DRs) (not captured by an IBIR EWR)
 _____ Outstanding EDPs (not captured by an IBIR EWR)
 _____ Non-FACTS Technical Support Action Items

REMARKS *(The System Engineer can provide any additional relevant information deemed necessary to provide a complete summary of system readiness)*

System Engineer Signature / Date _____

 BACKLOG
 COMMITTEE
 REVIEW(S)

 System Engineer /
 Presenter

IBIR Date

BRC Review Date

BRC Chairman Signature

BACKLOG REVIEW COMMITTEE RECOMMENDATION

 Committee Chairman

 Date

PNSC REVIEW

 System Engineer /
 Presenter

IBIR Date

PNSC Review Date

 PNSC Chairman
 Signature

PNSC RECOMMENDATION *(PNSC Review Required for Systems with Priority 1 - 4 Rescheduled Open Items, otherwise, only Plant Manager Approval is Required for All Systems)*

 PNSC Chairman/Unit 1/2 Plant Manager

 Date

BNP SITE MANAGER APPROVAL *(Required for Systems with Priority 1 - 4 Rescheduled Open Items on "Focus Systems")*

 BNP Site Manager

 Date

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REQUEST FOR PRE-STARTUP CORRECTIVE ACTION EXCEPTION

ITEM IDENTIFICATION #

SYSTEM ID #

UNIT #

(Identify backlog item number(s), i.e., WR/JO #, TC #, Caution Tag #, etc....)

REFERENCE DOCUMENTS

(Identify all reference documents such as EWRs, EERs, ACRs, FACTs, Plant Mod #s, and other backlog item #s not identified above...)

DESCRIPTION

(this section should fully describe the problem such that the reader clearly understands the deficiency...avoid using cryptic descriptions from some of our databases that prompt confusion...note that the descriptions in the source database/document typically do not provide a complete understanding of the issue)

(for issues that can be quantitatively described, provide values, e.g., 20 drops/minute from valve packing leak, etc.)

CATEGORY	EXCEPTION
<input type="checkbox"/> 2. Action to materially improve safety system availability.	<input type="checkbox"/> 1. Refusing operational configuration (Operational Mode 5) is required to implement.
<input type="checkbox"/> 3. Action to restore the Design bases of the plant.	<input type="checkbox"/> 2. Engineering is unavailable to meet established work closeout dates.
<input type="checkbox"/> 4. Action to comply with docketed commitments related to the current outage.	<input type="checkbox"/> 3. Materials are unavailable to support implementation within the established work closeout dates.
<input type="checkbox"/> 5. Action to address operator workarounds.	<input type="checkbox"/> 4. Items which cannot be physically accomplished within the established work closeout dates.
<input type="checkbox"/> 6. Action to materially improve plant operating reliability.	<input type="checkbox"/> 5. Can be worked on-line (requires Operations approval below).
Operations Approval	

JUSTIFICATION (i.e., provide the technical basis for why this exception and the associated plant status is acceptable)

(this section is used to describe "why is it acceptable to startup the Unit with this deficiency"....additionally, if this deficiency affects one of the following issues, then its impact on that issue must be fully/clearly described: safety systems availability, reliability, operator workarounds, compensatory measures in place, and vulnerability to new problems while operating with the deficiency....)

(this section should address whether the deficiency is expected to worsen during the operating cycle and the associated impact)

(to provide additional technical justification, impact on Probabilistic Risk Analysis, PRA, can be referenced in this section)

(note that this section is not a justification for the exception # chosen, such as, justify why engineering is unavailable...rather this section provides the basis for startup that could be applicable for any exception # chosen)

(This section can be used to justify multiple backlog items on a single system if the integrated effects of those items do not render the system unfit for startup.)

REQUESTOR NAME / DATE
(Print)

BACKLOG REVIEW COMMITTEE RECOMMENDATION

BLN: []

System Engineer's Concurrence _____

☐ Recommended ☐ Not Recommended

Committee Chairman _____

Date _____

PN&C RECOMMENDATION (PN&C Required for only Priority 1 - 4 Exceptions, otherwise Plant Manager Approval is required for all Exceptions)

☐ Recommended ☐ Not Recommended

PN&C Chairman / Unit 1/2 Plant Manager _____

Date _____

BNP SITE MANAGER APPROVAL (Required for all Priority 1 - 4 Exceptions on "Focus Systems")

☐ Approved ☐ Disapproved

BNP Site Manager _____

Date _____

Continuation Page Attached []

FOR INFORMATION
ONLY

REQUEST FOR PRE-STARTUP CORRECTIVE ACTION EXCEPTION

ITEM IDENTIFICATION #

SYSTEM ID#

UNIT #

REFERENCE DOCUMENTS

DESCRIPTION

CATEGORY

- ☐ 12. Action to materially improve safety system availability.
☐ 13. Action to restore the Design bases of the plant.
☐ 14. Action to comply with docketed commitments related to the current outage.
☐ 15. Action to address operator workarounds.
☐ 16. Action to materially improve plant operating reliability.

EXCEPTION

- ☐ 1. Refueling operational configuration (Operational Mode 5) is required to implement.
☐ 2. Engineering is unavailable to meet established work closeout dates.
☐ 3. Materials are unavailable to support implementation within the established work closeout dates.
☐ 4. Items which cannot be physically accomplished within the established work closeout dates.
☐ 5. Can be worked on-line (requires Operations approval below).

Operations Approval

JUSTIFICATION (i.e., provide the technical basis for why this exception and the associated plant status is acceptable)

REQUESTOR NAME / DATE
(print)

BACKLOG REVIEW COMMITTEE RECOMMENDATION

BLN: []

System Engineer's Concurrence _____

☐ Recommended☐ Not Recommended_____
Committee Chairman_____
Date

PNSC RECOMMENDATION (PNSC Required for only Priority 1 - 4 Exceptions, otherwise Plant Manager Approval is required for all Exceptions)

☐ Recommended☐ Not Recommended_____
PNSC Chairman_____
Date

BNP SITE MANAGER APPROVAL (Required for all Priority 1 - 4 Exceptions on "Focus Systems")

☐ Approved☐ Disapproved_____
BNP Site Manager_____
Date

Continuation Page Attached []

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REQUEST FOR PRE-STARTUP CORRECTIVE ACTION EXCEPTION (Continuation Page)

Additional Comments

ITEM IDENTIFICATION #

UNIT #

NAME / DATE:

ORGANIZATION:

NAME / DATE:

ORGANIZATION:

NAME / DATE:

ORGANIZATION:

NAME / DATE:

ORGANIZATION:

FOR INFORMATION
ONLY

FINAL SYSTEM READINESS REVIEW

SYSTEM ID #
SYSTEM NAME

UNIT #

SYSTEM ENGINEER REVIEW SUMMARY *(The System Engineer shall initial each item below to confirm that he/she has completed the required reviews)*

_____ IBIR open items (including the proper dispositioning of open items)
_____ Pending Plant Modifications (PMs)
_____ Unanswered Technical Support Memorandums (TSMs)
_____ Outstanding NED "Blue Memos"
_____ Outstanding Direct Replacements (DRs) (not captured by an IBIR EWR)
_____ Outstanding EDPs (not captured by an IBIR EWR)
_____ Non-FACTS Technical Support Action Items

REMARKS *(The System Engineer can provide any additional relevant information deemed necessary to provide a complete summary of system readiness)*

System Engineer Signature / Date _____

TECHNICAL SUPPORT MANAGEMENT REVIEW & APPROVALS

Supervisor Signature _____ Date _____

Sub-Unit Manager Signature _____ Date _____

Tech Support Mgr Signature _____ Date _____

COMMENTS:

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OUTAGE SCOPE DELETION

SYSTEM ID #
SYSTEM NAME

UNIT #

#	Item #	Reference Items	Priority #	Cat #	Technical Basis for Rescheduling
1					
2					
3					
4					
5					
6					
7					
8					

RECOMMENDATION

System Engineer _____

Date _____

Operations Engineer _____

Date _____

PNSC REVIEW & APPROVAL (Required for all Priority 1-4 deletions)

PNSC Chairman_____
Date

UNIT 1/2 PLANT MANAGER APPROVAL (Required for all deletions)

Unit 1/2 Plant Manager_____
Date

BNP SITE MANAGER APPROVAL (Required for Priority 1-4 "Focus Systems" deletions)

BNP Site Manager_____
Date

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OUTAGE SCOPE ADDITION

SYSTEM ID #
SYSTEM NAME

UNIT #

REQUESTOR NAME / DATE:

ITEM #:
REFERENCE(S):

DESCRIPTION:

BASIS FOR ADDITION:

SCOPE ATTRIBUTES: *(for all NO responses, provide impact details below)*

Engineering (DR, Mod), etc.) Available	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Materials / Parts Available	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Funds / Resources Available	Yes <input type="checkbox"/>	No <input type="checkbox"/>
ALARA Impact Consistent With Goals	Yes <input type="checkbox"/>	No <input type="checkbox"/>

REQUIRED PLANT CONDITIONS / SPECIFIC IMPACT DETAILS:

OUTAGE MANAGEMENT EVALUATION

Schedule Analysis Results / Comments:

Outage Manager Approval: _____ Date _____

Additional Approvals Required: ☐ Unit 1/2 Plant Manager ☐ BNP Site Manager

UNIT 1/2 PLANT MANAGER APPROVAL:

Unit 1/2 Plant Manager

Date

BNP SITE MANAGER APPROVAL:

BNP Site Manager

Date

OPEN ITEM CATEGORIES

Category	Description
1	<p>ACTIONS TO MEET OPERABILITY REQUIREMENTS IN TECHNICAL SPECIFICATIONS</p> <p>i.e., is this item needed to meet operability requirements in Technical Specifications?</p>
2	<p>ACTIONS TO MATERIALLY IMPROVE SAFETY SYSTEM AVAILABILITY</p> <p>i.e., is this item necessary to ensure the systems remain in an operable status for the balance of each unit's fuel cycle?</p>
3	<p>ACTIONS TO RESTORE THE DESIGN BASIS OF THE PLANT</p> <p>i.e., is it required to ensure that the system will perform its intended functions per its design basis?</p>
4	<p>ACTIONS TO COMPLY WITH DOCKETED COMMITMENTS RELATED TO THE CURRENT OUTAGE</p> <p>i.e., is there a regulatory commitment that requires resolution prior to startup?</p>
5	<p>ACTIONS TO ADDRESS "OPERATOR WORKAROUNDS"</p> <p>i.e., is this item a Caution Tag, Disabled Annunciator, and/or RTGB indicator deficiency?</p>
6	<p>ACTIONS TO MATERIALLY IMPROVE PLANT OPERATING RELIABILITY</p> <p>i.e., is it necessary to ensure the system(s) remains in an operable status for the balance of each unit's fuel cycle?</p>
7	<p>OTHER</p> <ul style="list-style-type: none">a. Item is not a Category "1-6"b. Item is not required to support a Category "1-6"c. Item has to do with rust removal, cosmetic improvements, housekeeping, etc., within the power block and does not affect plant operationd. Item is for non-plant infrastructure improvements; i.e., vehicular and trailer maintenance, plumbing, air conditioning, welding machines, cranes, etc.

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Category	Description
e.	Item can be classified as MINOR MAINTENANCE <ul style="list-style-type: none">• Non-Safety Related• Non-Environmentally Qualified• Clearance not required• System boundary integrity not violated• PMTR can be included in repair instructions• No written procedure required• No in-plant welding required• Transient combustibles less than specified in OFPP-14• Not security related• No fire seal or fire protection boundary violated
f.	Item can be readily worked on line, does not affect safe and reliable operation, does not require an LCO or ASSD impairment to be generated to allow it to be worked, and it does not impede the ability of Operations to perform necessary surveillance and monitoring functions.

NOTE: Work items that are related to Direct Replacements, Plant Modifications, and Snubbers on safety-related systems should not be categorized as 7's. Exceptions to completion should be documented per the established process. Insignificant mechanical joint leakage may be classified as a 7 if no significant other deficiencies are identified for that item or if the component is scheduled to be replaced during a future work activity.

- 7a. ADMINISTRATIVE
- a. Item is for modification support (e.g., part reservations, rebuilds of components for spares)
 - b. Item is for administrative purposes only (e.g., timekeeping of I&C support of plant modifications)

- 7b. MISCELLANEOUS BENEFITS, SAFETY, ALARA
- Items which pertain to ALARA, contamination control, personnel safety, or need to be left on the schedule because they have some other justifiable plant benefit.
- Example: Item could be worked prior to startup with 4 Rem exposure. Once the plant is on the line exposure would be 17 Rem.

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FOCUS SYSTEMS

- Emergency Diesel Generators (5100, 5105, 5110, 5111, 5112, 5113, 6202)
- Diesel Generator Emergency Power (5095)
- Switchyard (5065, 5135, 5145, 5200, 5250, 5260)
- Instrument Air / Nitrogen (6135, 6152, 8270)
- Reactor Protection System (1050, 1080)
- Residual Heat Removal (2045)
- CAC (Venting) (2070)
- Service Water (4060)
- DC Power (5075, 5080, 5085, 5090, 5215, 5230, 5240, 5245, 5255)
- Plant Electrical (AC) (5170, 5175, 5185, 5195, 5205, 5210)
- PCIS (1011)
- Main Steam / EHC (3020, 5010)
- Condensate / Feedwater (3070)
- Fire Suppression / Detection (6175, 6180, 6195, 6205, 9300)
- HPCI (2095)
- RCIC (2100)
- ADS / SRVs (1005, 2055)
- SBT (7071)

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OUTAGE SCOPE DELETION PROCESS
REVIEW AND APPROVAL REQUIREMENTS MATRIX

The reviews and approvals required for deletion of items from the outage scope are displayed in the matrix below. The Outage Scope Deletion Form, Attachment 5, is utilized to document the necessary reviews and approvals.

	FOCUS SYSTEMS	NON-FOCUS SYSTEMS
Priority 1 - 4	<ul style="list-style-type: none">• System Engineer• Supervisor• Operations Engineer• PNSC• Unit 2 Plant Manager• Site VP	<ul style="list-style-type: none">• System Engineer• Supervisor• Operations Engineer• PNSC• Unit 2 Plant Manager
Priority > 4	<ul style="list-style-type: none">• System Engineer• Supervisor• Operations Engineer• Unit 2 Plant Manager	<ul style="list-style-type: none">• System Engineer• Supervisor• Operations Engineer• Unit 2 Plant Manager

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