

KEWAUNEE

May 2001

**PROPOSED
Administrative JPMS**

WISCONSIN PUBLIC SERVICE CORPORATION KEWAUNEE NUCLEAR POWER PLANT JOB PERFORMANCE MEASURE	NO. O-LRQ-JPM-A.1-2	REV. Orig
	TITLE: Review A Tagout For Approval	
	DATE	PAGE: 1

APPROVED BY:

Nuclear Training Supervisor-Operations

Assistant Manager Kewaunee Plant - Operations

PERFORMED BY:

Trainee

Evaluator

EVALUATION LOCATION:	PLANT/SIMULATOR/CONTROL ROOM	Simulator/Control Room
EVALUATION METHOD:	PERFORM/SIMULATE	Perform
AVE. COMPLETION TIME:	AVE. TIME FOR THIS JPM	5 Minutes
TIME CRITICAL TASK:	YES/ NO	No
MAX. COMPLETION TIME:	N/A FOR NON-TIME CRITICAL TASKS	NA
PERFORMANCE LEVEL:	SRO/RO/NAO	SRO
TASK NUMBER:	FROM OPS TRNG DATABASE	1190120302
TASK TYPE:	INITIAL/CONTINUING (FROM OPS TRNG DATABASE)	Initial
PLANT SYSTEM:	NAME	Admin.
CRITICAL STEPS:	(C) = CRITICAL	2, 3, and 4
	(S) = SEQUENCE CRITICAL	None
	(T) = TIME CRITICAL	None
SPECIAL TOOLS AND EQUIPMENT:	SPECIAL ITEMS REQUIRED TO COMPLETE JPM	None
REFERENCES:	REFERENCES USED FOR PERFORMANCE OF JPM	NAD 3.3, Rev. A GNP 3.3.1, Rev. G XK100-18

READ THE FOLLOWING TO THE OPERATOR:

THIS TASK IS NOT TIME CRITICAL

THE TASK CONDITIONS ARE:

You are the Control Room Supervisor.

The Plant is at 100% power

Maintenance person Kelly Gretz has identified a need to isolate the RHR Heat Exchanger B from the rest of the system, with the exception of vents, drains and valve stem leakoffs, to allow retightening of bolts on the flange on the RHR inlet line to the heat exchanger under Work Request KNPP-XXX.

The on-shift NCOs have prepared a tagout. . They also discussed the condition that the butterfly valves associated with the RHR system, RHR-8A, RHR-8B and RHR-101, have been noted to leak by at an appreciable rate when in the closed position.

The RHR Heat Exchanger does NOT need draining or venting for this work.

THE STEPS IN THIS JPM SHOULD BE: PERFORMED.

INITIATING CUE:

Review the tagout for adequacy and accuracy. Note all discrepancies found and report when review is completed.

DO YOU HAVE ANY QUESTIONS BEFORE WE BEGIN?

Answer any questions the Operator may have, THEN read the following to the Operator to initiate the JPM performance:

LET'S BEGIN

THIS TASK IS NOT TIME CRITICAL

THE TASK CONDITIONS ARE:

You are the Control Room Supervisor.

The Plant is at 100% power

Maintenance person Kelly Gretz has identified a need to isolate the RHR Heat Exchanger B from the rest of the system, with the exception of vents, drains and valve stem leakoffs, to allow retightening of bolts on the flange on the RHR inlet line to the heat exchanger under Work Request KNPP-XXX.

The on-shift NCOs have prepared a tagout. . They also discussed the condition that the butterfly valves associated with the RHR system, RHR-8A, RHR-8B and RHR-101, have been noted to leak by at an appreciable rate when in the closed position.

The RHR Heat Exchanger does NOT need draining or venting for this work.

INITIATING CUE:

Review the tagout for adequacy and accuracy. Note any discrepancies found and report when review is completed.

If required (only for JPM performance on the simulator), take the simulator out of freeze.

Use the JPM evaluation form to mark the operator's performance as the task is being done.

Provide any necessary cues for the JPM.

Take notes to support the resulting pass/fail grade.

For unsatisfactory grades, documentation must be noted in the comment section of the JPM evaluation form.

For any unsatisfactory grades, the JPM evaluation form will be filed in the individual's training file.

LOG START TIME:

STEP	PERFORMANCE ITEM	* STANDARD	SAT/	UNSAT
			S	U
1.	Verify Tagout covers required switches, valves, and breakers.	* REFER to GNP 3.3.1, XK100-18 and/or other plant documentation. Verify reason for tagout identifies RHR Heat Exchanger flange tightening and requestor is Kelly Gretz. Verify Adequacy/ Accuracy is signed. Compare tags to tagout sheet		
(c)2.	Determine RHR-400B Breaker location is incorrect on tag.	* Determine RHR-400B Breaker location is incorrect, Location should be 3CF.		
(c)3.	Determine RHR-299B Handwheel Tag is missing.	* Determine RHR-299B Handwheel Tag is missing, Tag is needed to complete tagout.		
(c)4.	Determine RHR-80B needs to be added to tagout.	* Determine RHR-80B needs to be added to tagout to isolate RHR heat exchanger.		
5.	Report errors located during review.	* Determine tagout is NOT adequate or accurate. * Report errors found and direct required corrections.		

* Indicates required items for satisfactory completion of performance items.

LOG STOP TIME:

When the operator completes the performance portion of the JPM, then read the following:

THAT COMPLETES THIS PORTION OF THE JPM.

Ask any required follow-up questions and note the questions and answers in the JPM evaluation comments section.

When done with any required follow-up questions, then read the following:

THAT COMPLETES THIS JPM.

Make sure your documentation on the next page is complete.

YES NO N/A

Were all of the critical steps performed correctly?			
<u>IF</u> the JPM was time critical, <u>THEN</u> was the JPM completed in the designated time?			
<u>IF</u> the JPM was NOT time critical, <u>THEN</u> was acceptable progress made in performing the task?			
Was the task standard met?			

IF any of the above questions was answered with a NO response, THEN this JPM must be evaluated as UNSATISFACTORY.

THE TASK STANDARD FOR THIS JPM IS:

Job Performance Measure was:

Identification of 3 errors on tagout.

SATISFACTORY _____ UNSATISFACTORY _____

EVALUATOR SIGNATURE: _____ DATE: _____

COMMENTS:

FOR TRAINING ONLY
Kewaunee Nuclear Power Plant
Tagout Control Sheet

Work Request: KNPP-xxx	WR Attachment ()	Procedure No:	TCR/DCR	Page 1
Requester: Kelly Gretz		Date:	Tagout Group: Maintenance	
Alternate:		Permission For Alternate:		
Reason For Tagout: Retighten RHR B Heat Exchanger RHR inlet flange connection				

Description				Placement				Restoration			
No.	Type	Switch/Apparatus	Card Location	Position	Date	Time	IV	Position	Date	Time	IV
1	Hold	RHR Pump B Control Switch	Mech Console C	PULLOUT				AUTO			
2	Hold	RHR-299B Control Switch	Mech Console C	CLOSED/MP				OPENED/MP			
3	Hold	RHR-400B Control Switch	Mech Console C	CLOSED/MP				OPENED/MP			
4	Hold	RHR-299B Breaker	MCC62H Cubicle 1JM	OFF				ON			
5	Hold	RHR-400B Breaker	MCC62H Cubicle 3CF	OFF				ON			
6	Hold	RHR-299B Handwheel	SI Pump & Charging Pump Wall	CLOSED				OPENED			
7	Hold	RHR-400B Handwheel	ICS Pump B Area	CLOSED				OPENED			
8	Hold	RHR-9B	RHR Heat Exchanger B Room	CLOSED				OPENED			
9	Hold	RHR-7B	RHR Heat Exchanger B Room	CLOSED				OPENED			

Adequacy/Accuracy Place				Date		Remove From Service (SS)				Date		Time	
Post Approval		CRS		Date		Time		Restoration Approval		CRS		Adq/Acc	
Cards	Seq							Cards	Seq				
Temp Lift Form		Y/N		WR Attached		Y/N		Restored As Indicated Above(SS)				Date	

<p>XXX-1 1 <u>Type: H</u> <u>Switch/Apparatus:</u> RHR PUMP B Control Switch FOR TRAINING ONLY <u>Position:</u> PULLOUT <u>Location:</u> Mech. Console C – Control Room <u>Comments:</u> None</p> <p><u>Placed for:</u> Kelly Gretz</p>	<p>XXX-1 5 <u>Type: H</u> <u>Switch/Apparatus:</u> RHR-400B Breaker FOR TRAINING ONLY <u>Position:</u> OFF <u>Location:</u> MCC-62H Cubicle 1JM <u>Comments:</u> None</p> <p><u>Placed for:</u> Kelly Gretz</p>
<p>XXX-1 2 <u>Type: H</u> <u>Switch/Apparatus:</u> RHR-299B Control Switch FOR TRAINING ONLY <u>Position:</u> CLOSED/MP <u>Location:</u> Mech. Console C – Control Room <u>Comments:</u> None</p> <p><u>Placed for:</u> Kelly Gretz</p>	<p>XXX-1 7 <u>Type: H</u> <u>Switch/Apparatus:</u> RHR-400B Handwheel FOR TRAINING ONLY <u>Position:</u> CLOSED <u>Location:</u> Aux, Bldg Bsmt, ICS Pump Area <u>Comments:</u> None</p> <p><u>Placed for:</u> Kelly Gretz</p>
<p>XXX-1 3 <u>Type: H</u> <u>Switch/Apparatus:</u> RHR-400B Control Switch FOR TRAINING ONLY <u>Position:</u> CLOSED/MP <u>Location:</u> Mech. Console C – Control Room <u>Comments:</u> None</p> <p><u>Placed for:</u> Kelly Gretz</p>	<p>XXX-1 8 <u>Type: H</u> <u>Switch/Apparatus:</u> RHR-9B FOR TRAINING ONLY <u>Position:</u> CLOSED <u>Location:</u> Aux, Bldg Bsmt, SI Pump Area <u>Comments:</u> None</p> <p><u>Placed for:</u> Kelly Gretz</p>
<p>XXX-1 4 <u>Type: H</u> <u>Switch/Apparatus:</u> RHR-299B Breaker FOR TRAINING ONLY <u>Position:</u> OFF <u>Location:</u> MCC-62H Cubicle 1JM <u>Comments:</u> None</p> <p><u>Placed for:</u> Kelly Gretz</p>	<p>XXX-1 9 <u>Type: H</u> <u>Switch/Apparatus:</u> RHR-7B FOR TRAINING ONLY <u>Position:</u> CLOSED <u>Location:</u> RHR Heat Exchanger B Room <u>Comments:</u> None</p> <p><u>Placed for:</u> Kelly Gretz</p>

FOR TRAINING ONLY

FOR TRAINING ONLY

Wisconsin Public Service Corporation	NAD No. 3.3	Rev. A
NUCLEAR ADMINISTRATIVE DIRECTIVE	Title: Tagout Control	
	Date: APR 27 1995	Page 1 of 5
Prepared By <u>[Signature]</u> Author	Reviewed By <u>[Signature]</u> QA Review	
Reviewed By <u>[Signature]</u> Process Owner	Approved By <u>C. A. Schrock</u> Resp. Mgr. or Senior V.P.	

1.0 PURPOSE

The purpose of this Nuclear Administrative Directive is to provide the requirements governing the use of Hold, Danger, and Caution Cards to:

- 1.1 ensure the safety of personnel who may be required to work on or around electrical or mechanical equipment.
- 1.2 inform personnel of unusual or dangerous conditions.
- 1.3 identify equipment in a controlled status for reactor safety.
- 1.4 avoid unauthorized operation of equipment.
- 1.5 protect equipment.
- 1.6 assure independent verification of operating activities is performed and documented when required.
- 1.7 ensure Technical Specification compliance is maintained.
- 1.8 ensure Fire Plan compliance is maintained.
- 1.9 ensure Security Plan compliance is maintained.

2.0 APPLICABILITY

This Nuclear Administrative Directive is applicable to all personnel and contractors constructing, modifying, testing or maintaining plant systems. Additionally this directive is applicable to all personnel granted access to the plant in that they understand the significance and follow the requirements of tags posted in the plant.

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3.0 DEFINITIONS

- 3.1 Hold Cards - a safety card which shall be used for the protection of lives. A Hold Card is a warning to all that the associated component's position shall not be changed as long as the Hold Card is in place. Hold Cards may be used for reactor safety to identify equipment which is in a controlled status only when also required for the protection of lives.
- 3.2 Caution Cards - a safety card which shall be used to protect personnel working on or adjacent to energized equipment to warn against reclosure of a circuit.
- 3.3 Danger Cards - a safety card which shall be used to protect equipment or to warn of unusual or dangerous conditions. They may also be used for reactor safety to identify equipment which is in a controlled status.
- 3.4 Tagout Log Book - a binder kept in the Control Room used to maintain the status of current tagouts.

4.0 RESPONSIBILITIES

- 4.1 The Manager - Kewaunee Plant (or designated alternate) is responsible for granting authorization to clear Hold cards when the requestor is not on site AND cannot be contacted.
- 4.2 The Superintendent - Plant Operations is responsible for ensuring that this Nuclear Administrative Directive is being implemented as required.
- 4.3 The Shift Supervisor is responsible for the use of all Hold, Danger and Caution Cards in the plant. The Shift Supervisor is also responsible for the authorization of the removal of equipment from service and its restoration to service.
- 4.4 The Control Room Supervisor is responsible for reviewing the tagout to ensure reactor safety is maintained by adequate equipment status control. The Control Room Supervisor is also responsible for authorizing the posting and removal of all Hold, Danger and Caution Cards for the plant.
- 4.5 The Shift Supervisor has the responsibility to ensure the requirements of NAD 3.9, "Independent Verification" are met when equipment is repositioned during the tagout process.
- 4.6 All personnel are responsible for recognizing the purpose for the use of Hold, Caution and Danger and abiding by posted cards.

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5.0 REQUIREMENTS

5.1 The person responsible for a component/system unusual lineup, modification, test or maintenance shall present a request to the Shift Supervisor and discuss the use of Hold, Danger or Caution Cards to be posted.

5.2 The person requesting the tagout shall discuss with the Control Room Supervisor what cards are necessary for the tagout and what components will be worked on inside the tagout boundary. This discussion shall include what cards are necessary for the requestor's safety as well as what cards are required for equipment status control per the following guidelines:

Any equipment which is:

- out-of service, AND
- not under the direct control of the Operations Group, AND
- not in an approved plant procedure

shall have a Danger or Hold Card placed on the appropriate equipment to indicate its status.

5.3 The Shift Supervisor and Control Room Supervisor shall each perform the following review associated with the system/component to be isolated prior to removing the system/component from service.

5.3.1 Verify that the system/component can be isolated and the length of time it can be out-of-service. Attention should be given to the potentially degraded degree of protection when one train of a redundant safety system has been removed from service.

5.3.2 Identify and perform necessary testing of redundant systems, as required by Technical Specifications, prior to and during the out-of-service period.

5.3.3 Identify and initiate contingency actions of:

- Fire Plan
- Security Plan

prior to and during the out-of-service period.

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- 5.3.4 Evaluate the conditions to be considered in preparing equipment for isolation including, as a minimum, shutdown margin, method of emergency core cooling, establishment of decay heat removal paths, temperature and pressure of the system, isolation between work and hazardous materials, draining and venting, confined space entry, hazardous atmospheres and materials and electrical hazards.
- 5.3.5 Identify all components in an electrical circuit which may be affected by deenergizing the circuit and evaluate. Attention should be given to components and systems that are unrelated to the work.
- 5.3.6 Determine Independent Verification requirements per NAD 3.9, "Independent Verification."
- 5.4 GNP 3.3.1, "Tagout Processing," provides the procedure for generating, posting, removing and maintaining tagouts.
- 5.5 Work on the component/system shall not commence until the Control Room Supervisor informs the requestor the tagout process is complete.
- 5.6 Once cards have been placed, the person in charge of the work shall perform a personal verification that the cards have been placed where required, unless he is the person who hung the cards.
- 5.7 The Shift Supervisor shall have available the status of all outstanding tagouts.
- 5.8 The tagout shall remain in place until the requestor informs the Shift Supervisor the card may be removed. The following exceptions apply:
 - 5.8.1 The Requestor may delegate an alternate person to remove the tagout. This delegation shall be noted and signed on the Tagout Control Sheet. The alternate may then request the cards be removed.
 - 5.8.2 The Manager - Kewaunee Plant or his designated alternate may grant authorization to remove the tagout when the requestor is not on site AND cannot be contacted.
 - 5.8.3 Hold Cards may be lifted for temporary operation of equipment. This requires approval of the requestor and Shift Supervisor. The person who lifts the Hold Cards shall remain in the area of the equipment until the operation is completed and the Hold Cards are cleared or replaced. Cards shall not be lifted over any shift change, instead the cards should be cleared and new cards hung when the operation is over.

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6.0 REFERENCES

6.1 NAD 3.9, "Independent Verification"

6.2 WPSC Safety Rule Book, Sections 149, 150, 151, 152, 506, & 507.

7.0 IMPLEMENTING PROCEDURES

7.1 GNP 3.3.1, "Tagout Processing"

8.0 RECORDS

8.1 The following QA records and non-QA records are identified in this directive/procedure and are listed on the KNPP Records Retention Schedule. These records shall be maintained according to the KNPP Records Management Program.

8.1.1 QA Records

None

8.1.2 Non-QA Records

None

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Kewaunee Nuclear Power Plant		Title: Tagout Processing	
GENERAL NUCLEAR PROCEDURE		Date DEC 08 1998	Page 1 of 22
Prepared By <u>Roger J. Mital</u>		Approved By <u>[Signature]</u>	
Reviewed By <u>O Braun</u>			
Nuclear Safety Related	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	PORC Review Required	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		SRO Approval of Temporary Changes Required	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

1.0 PURPOSE

The purpose of this procedure is to provide the guidelines for implementing the use of Hold, Danger and Caution Cards at the plant site.

2.0 APPLICABILITY

This procedure describes the tagout process. This procedure is applicable to all personnel involved in the tagout process.

3.0 DEFINITIONS

- 3.1 Hold Cards - WPS Hold Cards shall be used for the protection of lives. A Hold Card is a warning to all that the associated components position shall not be changed as long as the Hold Card is in place. Hold Cards may be used for reactor safety to identify equipment which is in a controlled status only when also required for the protection of lives.
- 3.2 Caution Cards - WPS Caution Cards shall be used to protect personnel working on or adjacent to energized equipment to warn against reclosure of a circuit.
- 3.3 Danger Cards - WPS Danger Cards shall be used to protect equipment or to warn of unusual or dangerous conditions. They may also be used for reactor safety to identify equipment which is in a controlled status.
- 3.4 Tagout Status Sheet (Form GNP 3.3.1-1) - the means of controlling the status of all outstanding tagouts.
- 3.5 Tagout Control Sheet (Figure GNP 3.3.1-1) - a multicopy form used to control the detailed status of each tagout.
- 3.6 Work Request Attachment (Form GNP 3.3.1-2) - a Tagout Control Sheet attachment used when more than one Work Request is being performed under a tagout.

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- 3.7 Tagout Review Sheet (Form GNP 3.3.1-3) - a form used to document the weekly review of the tagout system.
- 3.8 Tagout Log Book - a binder kept in the Control Room used to maintain the status of current tagouts.
- 3.9 Independent Verification - the act of checking a component position independently of activities related to establishing the component's position.

This may be accomplished by:

- 3.9.1 a qualified individual, operating independently, physically verifying that a component has been placed in a specified configuration; or
- 3.9.2 the performance of an independent functional test without compromising plant safety that unambiguously verifies the component is in a specified configuration.
- 3.10 Tagman - any member of the Operations group assigned to perform tagout control duties.
- 3.11 Tagout Adequacy/Accuracy Verification - the act of comparing the Tagout Control Sheet with current plant reference material to verify the tagout adequately isolates/restores the component/system. The tags are checked to verify they accurately reflect the information on the Tagout Control Sheet.
- 3.12 Sequence of Isolation - the act of isolating a component and/or system in a particular order to ensure proper isolation and to protect personnel and equipment. When procedural guidance exists, the procedure takes precedence over the normal sequence of isolation. The normal sequence of isolation is as follows:
 - 3.12.1 Position control switch.
 - 3.12.2 Remove power from component(s).
 - 3.12.3 Isolate component/system from high pressure side to low pressure side.
 - 3.12.4 Open drain valve(s).
 - 3.12.5 Open vent valve(s).

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3.13 Sequence of Restoration - the act of restoring a component and/or system in a particular order to ensure proper isolation and to protect personnel and equipment. When procedural guidance exists, the procedure takes precedence over the normal sequence of restoration. The normal sequence of restoration is as follows:

3.13.1 Close drain valves.

3.13.2 Close vent valves.

3.13.3 Restore component from low pressure side to high pressure side, venting as required.

3.13.4 Restore power to components.

3.13.5 Position control switch.

3.14 Hazard and Consequences Statement - information to be included on Danger Cards that will explicitly define any hazards to personnel and/or the status of equipment. When applicable the Hazard and Consequences Statement should consist of the following:

3.14.1 Identify the equipment or system (i.e., RC-507).

3.14.2 Identify the hazard or condition and cause, if known (i.e., OOS for causes unknown - Instrument Air isolated).

3.14.3 Identify what should or should not be done to avoid danger, damage or violations (i.e., Maintain closed or close RC-508 prior to opening).

3.14.4 Identify the consequences of failure to follow instructions (i.e., Opening of RC-507 & RC-508 will violate containment integrity).

4.0 RESPONSIBILITIES

4.1 The Manager - Kewaunee Plant (or designated alternate) is responsible for granting authorization to clear Hold cards when the requestor is not on site AND cannot be contacted.

4.2 The Superintendent - Plant Operations is responsible for ensuring that this procedure is being implemented.

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4.3 The Shift Supervisor is responsible for:

- ◆ The use of all Hold, Danger and Caution Cards in the plant.
- ◆ The authorization of the removal of equipment from service and its restoration to service.
- ◆ Ensuring the requirements of NAD 3.9, "Independent Verification" are met when equipment is removed or returned to service.
- ◆ Verification that the system/component can be isolated and the length of time it can be out-of-service. Attention should be given to the potentially degraded degree of protection when one train of a redundant safety system has been removed from service.
- ◆ Identification and performance of necessary testing of redundant systems, as required by Technical Specifications, prior to and during the out-of-service period.
- ◆ Identification and initiation of contingency actions of:
 - Fire Plan
 - Security Plan
 prior to and during the out-of-service period.
- ◆ Evaluating the conditions to be considered in preparing equipment for isolation including, as a minimum, shutdown margin, method of emergency core cooling, establishment of decay heat removal paths, temperature and pressure of the system, isolation between work and hazardous materials, draining and venting, confined space entry, hazardous atmospheres and materials and electrical hazards.
- ◆ Identifying all components in an electrical circuit which may be affected by deenergizing the circuit and evaluate. Attention should be given to components and systems that are unrelated to the work.
- ◆ Evaluation of plant conditions and nature of the tagout to determine if a Sequence of Isolation is applicable.
- ◆ Address post-maintenance testing and reactivity considerations.
- ◆ In the absence of the Control Room Supervisor, the Shift Supervisor shall be responsible for the CRS's Tagout related duties.

4.4 The Control Room Supervisor is responsible for :

- ◆ Authorizing the posting and removal of all Hold, Danger and Caution Cards for the plant.
- ◆ Ensure (along with one other individual) that the tagout is adequate and accurate.
- ◆ Ensure the requirements of NAD 3.9, "Independent Verification" are met.
- ◆ Determine to what extent a Hazard and Consequences Statement should be used.

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- ◆ Ensure reactor safety is maintained by adequate equipment status control per the following guidelines:
 - Any equipment which is:
 - out-of service, AND
 - not under the direct control of the Operations group, AND
 - not in an approved plant procedure
 shall have a Danger or Hold Card placed on the appropriate Control Room controls to indicate its status.
- ◆ Verification that the system/component can be isolated and the length of time it can be out-of-service. Attention should be given to the potentially degraded degree of protection when one train of a redundant safety system has been removed from service.
- ◆ Identification and performance of necessary testing of redundant systems, as required by Technical Specifications, prior to and during the out-of-service period.
- ◆ Identification and initiation of contingency actions of:
 - Fire Plan
 - Security Plan
 prior to and during the out-of-service period.
- ◆ Evaluating the conditions to be considered in preparing equipment for isolation including, as a minimum, shutdown margin, method of emergency core cooling, establishment of decay heat removal paths, temperature and pressure of the system, isolation between work and hazardous materials, draining and venting, confined space entry, hazardous atmospheres and materials and electrical hazards.
- ◆ Identifying all components in an electrical circuit which may be affected by deenergizing the circuit and evaluate. Attention should be given to components and systems that are unrelated to the work.
- ◆ Evaluation of plant conditions and nature of the tagout to determine if a Sequence of isolation or restoration is applicable.
- ◆ Determine if components inside the Tagout boundary require verification of position.
- ◆ Address post-maintenance testing and reactivity considerations.

4.5 The Superintendent - Plant Operations shall maintain a list of personnel authorized to install and remove cards and perform independent verification. The Qualified Tag Personnel list shall be available in the Night Order Book.

4.6 The act of isolating components, installing and removing cards and performing independent verification shall be the exclusive responsibility of the personnel listed by the Superintendent - Plant Operations.

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- 4.7 Sign-off by the responsible person indicates that all actions within their responsibility per this GNP and NAD 3.3 are complete to the best of their knowledge.

5.0 REQUIREMENTS

- 5.1 The Shift Supervisor and when on shift, Control Room Supervisor, shall perform the following review associated with the system/component to be isolated prior to removing the system/component from service.
- 5.1.1 Verify that the system/component can be isolated and the length of time it can be out-of-service. Attention should be given to the potentially degraded degree of protection when one train of a redundant safety system has been removed from service.
 - 5.1.2 Identify and perform necessary testing of redundant systems, as required by Technical Specifications, prior to and during the out-of-service period.
 - 5.1.3 Identify and initiate contingency actions of:
 - Fire Plan
 - Security Plan

- prior to and during the out-of-service period.
 - 5.1.4 Evaluate the conditions to be considered in preparing equipment for isolation including, as a minimum, shutdown margin, method of emergency core cooling, establishment of decay heat removal paths, temperature and pressure of the system, isolation between work and hazardous materials, draining and venting, confined space entry, hazardous atmospheres and materials and electrical hazards.
 - 5.1.5 Identify all components in an electrical circuit which may be affected by de-energizing the circuit and evaluate. Attention should be given to components and systems that are unrelated to the work.
 - 5.1.6 Determine independent verification requirements per NAD 3.9, "Independent Verification."
 - 5.1.7 Evaluate plant conditions and nature of the tagout to determine if a Sequence of Isolation is applicable.

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NOTE: *Check valves shall **NOT** be used as protection boundary unless **NO** other boundary exists **AND** the risk is minimal.*

5.2 The Control Room Supervisor or designee and the person requesting the tagout shall discuss the components which must be carded to complete the tagout. The discussion shall include what cards are necessary for the requestor's safety, as well as equipment status control (reference step 4.4). An approved procedure may be used to identify individual card requirements. For each component identify:

5.2.1 Type of card to be used.

5.2.2 Required component position.

5.3 The Tagout preparer shall fill out the Tagout Status Sheet and complete the Tagout Control Sheet as follows:

5.3.1 Tagout number (will normally be generated by the computer).

5.3.2 System number.

5.3.3 Associated Work Requests. If required, identify all Work Requests and workers on a WR Attachment and mark the appropriate box on the Tagout Control Sheet.

5.3.3.1 During major outages, department supervisors may request "umbrella" (secondary system, turbine, etc.) tagout. Individual workers then add/remove associated WRs as required.

5.3.4 Associated plant procedures.

5.3.5 DCR, TCR, KAP etc.

5.3.6 Tagout Group.

5.3.7 Reason for Tagout (additional administrative information may be entered in this space).

5.3.8 Requestor's name.

5.3.9 Alternate to requestor (the requestor must sign the Tagout Control Sheet to authorize the alternate).

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5.3.10 For each card on the Tagout Control Sheet, enter:

5.3.10.1 Card number.

5.3.10.2 Card type.

5.3.10.3 Switch/apparatus description.

5.3.10.4 Switch/apparatus location (be as specific as possible).

5.3.10.5 Independent Verifications requirements (if I.V. is NOT required, enter N/A in the associated spaces).

5.3.10.6 Placement position.

5.3.10.7 Restoration position, if known.

5.4 The designated cards shall be completed as follows:

5.4.1 Card number (i.e., 93-0349 3, for 3rd on tagout 93-0349).

5.4.2 Switch/apparatus description.

5.4.3 Required Position.

5.4.4 Switch/apparatus location.

5.4.5 Comments (identify any special concerns relative to the tagged component. This would include the Hazard and Consequences Statement for Danger Cards).

5.4.6 Requestor's Name.

5.5 The tagout preparer, with the assistance of the Control Room Supervisor or Shift Supervisor, shall identify if the affected system, component, or section of piping could change system reactivity during restoration. IF yes, attach notation on the Tagout Control Sheet.

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- 5.6 The Control Room Supervisor shall designate an individual from the Operations Group (other than himself) to perform a Tagout Placement Adequacy/Accuracy Verification as follows:
 - 5.6.1 Compare the Tagout Control Sheet with current plant reference material such as flow diagrams, MCC Book and logic diagrams to verify the tagout adequately isolates the component/system and the components to be tagged are correctly identified on the Tagout Control Sheet.
 - 5.6.2 Compare the Tagout Control Sheet with the tagout cards to ensure the information on the cards is accurate.
 - 5.6.3 Bring any discrepancies to the attention of the Control Room Supervisor for correction or addition as required.
 - 5.6.4 When satisfied with the card placement adequacy and accuracy of the tagout, sign the Tagout Control Sheet.
- 5.7 The Shift Supervisor shall authorize removal of the component/system from service:
 - 5.7.1 Verify all prerequisites for removal from service identified in step 5.1 have been satisfied.
 - 5.7.2 Review the Tagout Control Sheet to verify tagging the components listed will not violate Tech Specs.
 - 5.7.3 Authorize removal from service by signing the Tagout Control Sheet.
- 5.8 The Control Room Supervisor shall authorize card posting:
 - 5.8.1 Verify all prerequisites for removal from service identified in step 5.1 have been satisfied.
 - 5.8.2 Ensure the information on the Tagout Control Sheet and tagout cards is adequate and accurate.
 - 5.8.3 Verify tagging the components listed will not violate Tech Specs.
 - 5.8.4 Review Sequence of Isolation requirements for the tagout and check the posting approval "Seq" space to denote this review.

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5.8.5 Grant posting approval for the complete or partial tagout by signing the Tagout Control Sheet.

5.9 The Control Room Supervisor shall designate an individual(s) from the Qualified Tag Personnel list to place the cards as follows (the pink third copy should be used to assist the person placing the cards):

NOTE: *Cards shall be posted such that other instruments, controls and indicating lights are not obstructed and the carded component could not be operated without noticing the card.*

NOTE: *When procedural guidance exists, the procedure takes precedence over the normal sequence of isolation.*

5.9.1 Inform the individual of any Sequence of Isolation.

5.9.2 The person hanging the card shall check to ensure its accuracy.

5.9.3 Position the component to the designated position.

5.9.4 Print time (if required) and date on the card.

5.9.5 Sign the card in "Placed By".

5.9.6 Use of Danger Cards for Equipment inside Containment:

5.9.6.1 When above Cold Shutdown

- a. Place Danger Card on the "Containment Danger Card Status Board" in lieu of attaching card to the component.
- b. Attach designated metal tag to component using approved fastener, OR

5.9.6.2 When at or below Cold Shutdown

- a. Securely attach card to component.

5.9.7 Securely attach the card to the component.

5.9.8 Notify the Control Room of the card posting times.

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NOTE: *Independent Verification is not required when independent verification would require entry into an area with a field > 1000 mr/hr.*

NOTE: *Independent Verification is not required following local and integrated leak rate testing per 10CFR50 Appendix J during a major outage. Assurance of proper equipment alignment is provided by of containment integrity checklists.*

5.10 If Independent Verification is required, the Control Room Supervisor shall designate an individual(s) to verify card placement. The pink third copy should be used to assist in verification. The Independent Verification shall:

5.10.1 Be performed independent of card placement except when the required position cannot be verified other than by watching the actual component positioning (i.e., throttled, sealed or locked in position valves).

5.10.2 Assure the component is positioned as specified on the card.

5.10.3 Be performed prior to start of the associated work.

5.10.4 Be documented with an initial on the Tagout Control Sheet.

5.10.5 Following Independent Verification, the pink copy should either be given to the worker or discarded.

5.11 The Tagman shall:

5.11.1 Enter the time and date of posting for each card.

5.11.2 Assure required Independent Verification initials are entered.

5.11.3 Return the Tagout Control Sheet to the Tagout Log Book.

5.11.4 Enter the date posted on the Tagout Status Sheet. Update the computer as time permits.

5.11.5 Inform the Control Room Supervisor tagout posting is complete.

5.12 Following card posting and verification, the Control Room Supervisor shall ensure the requestor is informed that work may proceed on the system component.

5.13 If additional tags are needed on a posted tagout, the Shift Supervisor shall be notified. The requestor shall be notified if cards are added to an existing tagout.

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- 5.14 The Shift Supervisor shall have available the status of all outstanding tagouts.
- 5.15 The card(s) shall remain in place until the requestor informs the Shift Supervisor they may be removed. The following exceptions apply:

- 5.15.1 The Requestor may delegate an alternate person to remove the tagout. This delegation shall be noted and signed on the Tagout Control Sheet.
- 5.15.2 The Manager - Kewaunee Plant or his designated alternate may grant authorization to remove the Tagout when the Requestor is not on site AND cannot be contacted AND a cognizant supervisor from the department for which the tags were issued concurs.

NOTE: *Except for temporary lifts, cards are NOT to be reused.*

- 5.15.3 Tagout Cards may be lifted for temporary operation of equipment, with Tagout Card Requestor (or Designated Alternate) and Shift Supervisor approvals.
- ◆ The Qualified Tag Personnel (Ref. Standing Night Order List) responsible for the lift should remain in the area of the equipment until the operation is completed and the card(s) are cleared or replaced.
 - ◆ Temporary lifts shall be for short durations only - if long term operation is required, the tagout cards should be cleared and new tagout cards issued when requested.
 - ◆ All temporary lifts shall be documented using Tagout Temporary Lift Tracking Form. This form shall be attached to the Tagout Control Sheet.
 - ◆ Tagout Cards shall not be lifted during a shift change of the Requestor without the proper approvals (i.e., Designated Alternate and Shift Supervisor approval).

- 5.16 When the tagout removal is requested, the Shift Supervisor shall inform the Control Room Supervisor the tagout may be removed. The Control Room Supervisor shall:

- 5.16.1 Verify all work is completed for the Work Requests listed with the Tagout.

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5.16.2 Have entered (or verified) the restoration positions on the Tagout Control Sheet for each component, ensuring they are appropriate for the present plant conditions.

5.16.2.1 When clearing "umbrella" tagouts, consideration should be given to the need for partial or complete system checklists.

5.16.3 Designate an individual from the Operations Group (other than himself) to perform a Tagout Restoration Adequacy/Accuracy Verification as follows:

5.16.3.1 Compare the Tagout Control Sheet with current plant reference material such as system checklists, flow diagrams, MCC Book, and logic diagrams to verify the tagout adequately restores the component/system.

5.16.3.2 Bring any discrepancies to the attention of the Control Room Supervisor for correction.

5.16.3.3 Sign the Tagout Control Sheet to document the Adequacy/Accuracy Verification.

5.16.4 Review Sequence of Restoration requirements for the tagout and check the restoration approval "Seq" space to denote this review.

5.16.5 Determine if any components inside the tagout boundary require verification of position.

5.16.5.1 If a component has been worked on, replaced, or manipulated, verification of its position shall be performed by documenting on Tagout Control Sheet, full/partial checklist, or Form NAD 3.9-1.

5.16.5.2 If Independent Verification is required, document using Form NAD 3.9-1, Independent Verification Record, Tagout Control Sheet, or partial checklist.

5.16.6 With the assistance of the Shift Supervisor, provide direction if additional precautions are needed to address Post Maintenance/Testing Reactivity Considerations prior to or during restoration.

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5.16.7 Grant restoration approval for the complete or partial tagout by signing the Tagout Control Sheet.

5.17 The Control Room Supervisor shall designate an individual(s) from the Qualified Tag Personnel List to remove the cards as follows: (the yellow second copy should be used to assist the person removing the cards).

NOTE: *When procedural guidance exists, the procedure takes precedence over the normal Sequence of Restoration.*

5.17.1 Inform the individual of any Sequence of Restoration.

5.17.2 Inform the individual of any components not carded that require verification of position.

5.17.3 The Tagout Card remover shall:

- ◆ Print time and date on the card (if required).
- ◆ Sign the card in "Removed By".
- ◆ Make a check mark in one of the "Who Is" spaces. This indicates how the person clearing the card obtained authorization to clear the card. (Hold Cards only.)
- ◆ Notify the Control Room of the card restoration times.

NOTE: *Cards from the controlled area should normally be frisked out.*

5.17.4 Completed cards should be returned to the control room and verified against the Tagout Control Sheet, then destroyed.

5.17.5 Completed cards requested by System Operating shall be returned to Operations Superintendent.

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NOTE: *Independent Verification is not required when independent verification would require entry into an area with a field > 1000 mr/hr.*

NOTE: *Independent Verification is not required following local and integrated leak rate testing per 10CFR50 Appendix J during a major outage UNLESS affected system prestart-up checklists have been started. Assurance of proper equipment alignment is provided by containment integrity checklists.*

5.18 If Independent Verification is required, the Control Room Supervisor or Shift Supervisor shall designate an individual(s) to verify card removal. The yellow copy should be used to assist in verification. The Independent Verification shall:

5.18.1 Be performed independent of card removal except when the required position cannot be verified other than by watching the actual component positioning (i.e., throttled, sealed or locked in position valves).

5.18.2 Assure the component is positioned as specified on the Tagout Control Sheet.

5.18.3 Be performed prior to restoring the system/component to service.

5.18.4 Be documented with an initial on the Tagout Control Sheet.

5.18.5 Following Independent Verification, the yellow copy should be discarded.

5.19 The Tagman shall:

5.19.1 Enter the time and date of removal for each card.

5.19.2 Assure required Independent Verification initials are entered.

5.19.3 Enter the removed date on the Tagout Status Sheet. Update the computer as time permits.

5.19.4 Inform the Control Room Supervisor tagout removal is complete.

5.20 Following card removal and verification, the Control Room Supervisor shall verify the Tagout Control Sheet is complete and accurate, then forward the Tagout Control Sheet to the Shift Supervisor.

5.21 The Shift Supervisor shall review the Tagout Control Sheet and sign indicating the component/system has been restored as required by current plant conditions.

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5.22 The completed Tagout Control Sheet shall be filed in Removed Tagout Section of the Tagout Log Book in numerical order.

5.23 On Sunday night shift, condense the Tagout Status Sheet and send the completed Tagout Control Sheets and Tagout Status Sheets to the Operations Specialist.

NOTE: *Cards in Containment shall not be reviewed when at power.*

5.24 On the second Sunday of the month-night shift, plant conditions permitting, **AND** prior to plant start-up from Refueling Shutdown, the Shift Supervisor shall have a tagout review completed as follows:

5.24.1 Compare active tagouts with plant conditions to verify continuing need for tagout.

5.24.2 Compare active Tagout Control Sheets against cards posted to ensure:

5.24.2.1 Cards are legible and completely filled out.

5.24.2.2 Cards are posted on the proper component in a manner that precludes operation of the component without noticing the card.

5.24.2.3 The component is in the position designated on the card.

5.24.2.4 Only cards of active Tagouts are posted.

5.24.2.5 Note any discrepancies on the Tagout Review Sheet.

5.24.2.6 Condense the Tagout Status Sheet to minimize the number of sheets.

5.24.2.7 Send completed Tagout Control Sheets and Tagout Status Sheets to the Operations Specialist.

5.24.2.8 The Shift Supervisor shall document the tagout review on the Tagout Review Sheet.

5.24.2.9 When discrepancies are resolved, the date shall be entered on the Tagout Review Sheet.

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6.0 REFERENCES

- 6.1 NAD 3.3, "Tagout Control"
- 6.2 NAD 3.9, "Independent Verification"
- 6.3 WPSC Safety Rule Book, Sections 149, 150, 151, 152, 506, & 507
- 6.4 COMTRAK 92-230 Item 2
- 6.5 COMTRAK 96-110 - step (various), see Rev. D. Clarify and emphasize responsibilities of personnel involved in removal and restoration of equipment.

7.0 IMPLEMENTING PROCEDURES

- 7.1 None

8.0 RECORDS

- 8.1 The following QA records and non-QA records are identified in this directive/procedure and are listed on the KNPP Records Retention Schedule. These records shall be maintained according to the KNPP Records Management Program.

8.1.1 QA Records

- Tagout Control Sheet, Form 155-0180
- Tagout Control Sheet Work Request Attachment, Form GNP 3.3.1-2
- Tagout Temporary Lift Tracking Form, Form GNP 3.3.1-4

8.1.2 Non-QA Records

- Tagout Status Sheet, Form GNP 3.3.1-1
- Tagout Review Sheet, Form GNP 3.3.1-3
- Qualified Tag Personnel List
- Hold Card, Form 159-6419
- Caution Card, Form 107-70, Code 159-2006
- Danger Card, Form 159-6528

m 155-0180 Rev. 4-98

Season For Tagout

White Original -- Control Room Yellow Second -- Restoration Pink Third -- Placement

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TAGOUT STATUS SHEET

[illegible]

TAGOUT CONTROL SHEET WORK REQUEST ATTACHMENT

TAGOUT CONTROL SHEET # _____

WORK REQUEST NUMBER	DESCRIPTION OF WORK	WORKER	DATE ADDED TO TAGOUT	CRS INITIALS	DATE RELEASED FROM TAGOUT	CRS INITIALS	RETEST COMPLETE SS INITIALS

TAGOUT TEMPORARY LIFT TRACKING FORM

[illegible]

WISCONSIN PUBLIC SERVICE CORPORATION KEWAUNEE NUCLEAR POWER PLANT JOB PERFORMANCE MEASURE	NO. O-LRQ-JPM-A2 REV. Orig	
	TITLE: Review Partial Surveillance Procedure for Post Maintenance Retest	
	DATE	PAGE: 1

APPROVED BY:

Nuclear Training Supervisor-Operations

Assistant Manager Kewaunee Plant - Operations

PERFORMED BY:

Trainee

Evaluator

EVALUATION LOCATION:	PLANT/SIMULATOR/CONTROL ROOM	Simulator/Control Room
EVALUATION METHOD:	PERFORM/SIMULATE	Perform
AVE. COMPLETION TIME:	AVE. TIME FOR THIS JPM	10 MINUTES
TIME CRITICAL TASK:	YES/NO	No
MAX. COMPLETION TIME:	N/A FOR NON-TIME CRITICAL TASKS	NA
PERFORMANCE LEVEL:	SRO/RO/NAO	SRO
TASK NUMBER:	FROM OPS TRNG DATABASE	1190170302
TASK TYPE:	INITIAL/CONTINUING (FROM OPS TRNG DATABASE)	Initial
PLANT SYSTEM:	NAME	Admin
CRITICAL STEPS:	(C) = CRITICAL	2 and 3
	(S) = SEQUENCE CRITICAL	None
	(T) = TIME CRITICAL	None
SPECIAL TOOLS AND EQUIPMENT:	SPECIAL ITEMS REQUIRED TO COMPLETE JPM	None
REFERENCES:	REFERENCES USED FOR PERFORMANCE OF JPM	GNP-03.01.03 SP 05B-105

READ THE FOLLOWING TO THE OPERATOR:

THIS TASK IS NOT TIME CRITICAL

THE TASK CONDITIONS ARE:

You are the CRS.

The plant is at 100% power.

MS-103, T/D AFW Pump Trip and Throttle Valve, has been repaired.

MS-102, T/D AFW Pump Main Steam Isol., was hand torqued to isolate the steam during the repair.

THE STEPS IN THIS JPM SHOULD BE: Performed

INITIATING CUE:

You have been requested to approve and sign a partial SP 05B-105 to retest MS-103.

DO YOU HAVE ANY QUESTIONS BEFORE WE BEGIN?

Answer any questions the Operator may have, THEN read the following to the Operator to initiate the JPM performance:

LET'S BEGIN

THIS TASK IS NOT TIME CRITICAL

THE TASK CONDITIONS ARE:

You are the CRS.

The plant is at 100% power.

MS-103, T/D AFW Pump Trip and Throttle Valve, has been repaired.

MS-102, T/D AFW Pump Main Steam Isol., was hand torqued to isolate the steam during the repair.

INITIATING CUE:

You have been requested to approve and sign a partial SP 05B-105 to retest MS-103.

If required (only for JPM performance on the simulator), take the simulator out of freeze.

Use the JPM evaluation form to mark the operator's performance as the task is being done.

Provide any necessary cues for the JPM.

Take notes to support the resulting pass/fail grade.

For unsatisfactory grades, documentation must be noted in the comment section of the JPM evaluation form.

For any unsatisfactory grades, the JPM evaluation form will be filed in the individual's training file.

LOG START TIME:

STEP	PERFORMANCE ITEM	* STANDARD	SAT/ UNSAT	
			S	U
1.	Refer to Partial SP 05B-105, Turbine Driven AFW Pump and Valve TEST – IST	* Refer to Partial SP 05B-105		
(c)2.	Determine the intent is changed.	* Determine the change in TD AFW Pump rpm is change of intent.		
(c)3.	Determine AFW-10A and AFW-10B need to be closed to run TD AFW Pump.	* Determine Partial Steps 6.6, 6.7, 6.20, and 6.21 need to be included in Procedure.		
4.	Disapprove Partial SP until PORC reviewed.	* Disapprove Partial SP		

* Indicates required items for satisfactory completion of performance items.

LOG STOP TIME:

When the operator completes the performance portion of the JPM, then read the following:

THAT COMPLETES THIS PORTION OF THE JPM.

Ask any required follow-up questions and note the questions and answers in the JPM evaluation comments section.

When done with any required follow-up questions, then read the following:

THAT COMPLETES THIS JPM.

Make sure your documentation on the next page is complete.

	YES	NO	N/A
Were all of the critical steps performed correctly?			
<u>IF</u> the JPM was time critical, <u>THEN</u> was the JPM completed in the designated time?			
<u>IF</u> the JPM was NOT time critical, <u>THEN</u> was acceptable progress made in performing the task?			
Was the task standard met?			

IF any of the above questions was answered with a NO response, THEN this JPM must be evaluated as UNSATISFACTORY.

THE TASK STANDARD FOR THIS JPM IS:

Partial SP 05B-105 is reviewed and NOT approved.

Job Performance Measure was:

SATISFACTORY _____ UNSATISFACTORY _____

EVALUATOR SIGNATURE: _____ DATE: _____

COMMENTS:

KEWAUNEE NUCLEAR PLANT

PARTIAL PROCEDURE COVER SHEET

PROCEDURE NO. SP 05B-105 RUN DATE Actual Date

PROCEDURE TITLE Turbine Driven AFW Pump and Valve Test - IST

REASON FOR PARTIAL PROCEDURE:

Repair of MS-103, T/D AFW Pump Trip and Throttle
Valve, Testing

ASSOCIATED WORK REQUEST NO. KNP-XXX

NOTE: *This Partial Procedure does not change the intent of the procedure.*

PARTIAL PROCEDURE REVIEW AND APPROVAL:

M. Worker
(Initiator)

DATE Actual Date

M. Supervisor
(Reviewer)

DATE Actual Date

N. C. Operator
(Process Owner or Designee)

DATE Actual Date

(Active SRO) if Safety Related

DATE _____

WISCONSIN PUBLIC SERVICE CORPORATION KEWAUNEE NUCLEAR POWER PLANT SURVEILLANCE PROCEDURE	NO. SP-05B-105	REV BC (FREQ. Q)
	TITLE Turbine Driven AFW Pump and Valve Test - IST	
	DATE MAR 27 2001	PAGE 1 of 16
REVIEWED BY <i>[Signature]</i>	APPROVED BY <i>[Signature]</i>	
NUCLEAR SAFETY RELATED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	PORC REVIEW REQUIRED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	SRO APPROVAL OF TEMPORARY CHANGES REQUIRED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

DATE _____

1.0 PLANT INITIAL CONDITIONS

- 1.1 Test shall be performed quarterly. IF test is NOT performed at interval because of plant shutdown, it shall be performed within 72 hours after the plant is heated above 350°F.
- 1.2 Maintenance personnel are prepared to perform SP 55-177, Inservice Testing of Pumps Vibration Measurements.

2.0 PRECAUTIONS

- ~~2.1~~ Procedure enters Limiting Conditions for Operation stated in Section 3.0 while testing T/D AFW pump. Motor driven pumps shall be operable.

3.0 LIMITING CONDITIONS FOR OPERATION

- ~~3.1~~ WHEN RCS temperature is > 350°F, any of the following conditions of inoperability may exist during the time interval specified. IF OPERABILITY is NOT restored within times specified, refer to Tech Spec 3.4.

1. One Auxiliary Feedwater Train may be inoperable for 72 hours.
2. One steam supply to Turbine-Driven Auxiliary Feedwater Pump may be inoperable for 7 days.

4.0 GENERAL INSTRUCTIONS

- ~~4.1~~ Determine valve cycling times by timing to nearest second from switch actuation to green light off and switch actuation to red light off.
- ~~4.2~~ All substeps in each section shall be performed in sequence.

KEWAUNEE NUCLEAR POWER PLANT

TITLE Turbine Driven AFW Pump and Valve
Test - IST

SURVEILLANCE PROCEDURE

DATE MAR 27 2001

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DATE _____

INITIALS _____

5.0 EQUIPMENT REQUIRED

5.1 Calibrated stopwatches:

ID # _____

ID # _____

5.2 Ultrasonic Flowmeter

ID# _____

6.0 PROCEDURE

6.1 CIRCLE task number from SP card. For Task 2, complete steps marked (S), as well as other steps.

1 / 2 _____

6.2 REQUEST I&C INSTALL ultrasonic flowmeter on the T/D AFW Pump balance line.

INSTALLED _____

6.3 Record cycle times for AFW-10A/MV-32027, AFW Train A Crossover Valve:

6.3.1 VERIFY T/D AFWP Disch Press, 41040, is \leq 50 psig.

VERIFIED _____

6.3.2 RECORD AFW-10A closing time.

_____ sec _____

a. RECORD time AFW-10A closed.

_____ TIME _____

6.3.3 VERIFY Annunciator, AUX FEEDWATER DISCHARGE XOVR CLOSED (47063-L), ON.

ON _____

6.3.4 RECORD AFW-10A opening time.

_____ sec _____

a. RECORD time AFW-10A opened.

_____ TIME _____

6.3.5 VERIFY Annunciator, AUX FEEDWATER DISCHARGE XOVR CLOSED (47063-L), OFF.

OFF _____

6.4 Record cycle times for AFW-10B/MV-32028, AFW Train B Crossover Valve:

6.4.1 VERIFY T/D AFWP Disch Press, 41040, is \leq 50 psig.

VERIFIED _____

6.4.2 RECORD AFW-10B closing time.

_____ sec _____

a. RECORD time AFW-10B closed.

_____ TIME _____

CONTINUED

WISCONSIN PUBLIC SERVICE CORPORATION

NO. SP-05B-105

KEWAUNEE NUCLEAR POWER PLANT

TITLE Turbine Driven AFW Pump and Valve
Test - IST

SURVEILLANCE PROCEDURE

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DATE _____

INITIALS _____

6.4

CONTINUED

6.4.3 VERIFY annunciator, AUX FEEDWATER DISCHARGE ON _____
XOVR CLOSED (47063-L), ON.

6.4.4 RECORD AFW-10B opening time. _____sec _____

a. RECORD time AFW-10B opened. _____TIME _____

6.4.5 VERIFY annunciator, AUX FEEDWATER DISCHARGE OFF _____
XOVR CLOSED (47063-L), OFF.

CAUTION

Operations at the Dedicated Shutdown Panel shall be performed by a
Licensed Operator.

6.5 (\$) Cycle AFW-10A/MV-32027, Aux FW Pump 1A Crossover
MV, from DSP:

6.5.1 \$(CR) VERIFY T/D AFWP Disch Press, 41040, is VERIFIED _____
≤ 50 psig.

NOTE: Positioning AFW-10A Local/Remote Switch to Local will cause
AFW-10A to close.

6.5.2 \$(DSP) POSITION AFW-10A Local/Remote Switch LOCAL _____
to LOCAL and VERIFY following:

a. AFW-10A green indicating light, ON ON _____

b. RECORD time AFW-10A Local/Remote switch to _____TIME _____
LOCAL.

6.5.3 \$(CR) VERIFY following:

a. Annunciator, DSP LOCAL CONTROL (47023-L), ON _____
ON

b. Annunciator, AUX FEEDWATER DISCHARGE XOVR ON _____
CLOSED (47063-L), ON

CONTINUED

WISCONSIN PUBLIC SERVICE CORPORATION

NO. SP-05B-105

KEWAUNEE NUCLEAR POWER PLANT

TITLE Turbine Driven AFW Pump and Valve
Test - IST

SURVEILLANCE PROCEDURE

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INITIALS _____

6.5

CONTINUED

- 6.5.4 (\$)(DSP) OPEN AFW-10A and VERIFY following: OPEN _____
- a. (DSP) AFW-10A red indicating light, ON ON _____
 - b. (CR) Annunciator, AUX FEEDWATER DISCHARGE
XOVR CLOSED (47063-L), OFF OFF _____
 - c. RECORD time AFW-10A opened. _____ TIME _____
- 6.5.5 (\$)(DSP) CLOSE AFW-10A and VERIFY following: CLOSE _____
- a. (DSP) AFW-10A green indicating light, ON ON _____
 - b. (CR) Annunciator, AUX FEEDWATER DISCHARGE
XOVR CLOSED (47063-L), ON ON _____
 - c. RECORD time AFW-10A closed. _____ TIME _____
- 6.5.6 (\$)(DSP) POSITION AFW-10A Local/Remote Switch to REMOTE. REMOTE _____
- a. RECORD time AFW-10A Local/Remote switch to
REMOTE. _____ TIME _____
- 6.5.7 (\$)(CR) VERIFY following:
- a. AFW-10A has OPENED automatically. OPEN _____
 - b. AFW-10A red indicating light, ON ON _____
 - c. Annunciator, DSP LOCAL CONTROL (47023-L),
OFF OFF _____
 - d. Annunciator, AUX FEEDWATER DISCHARGE XOVR
CLOSED (47063-L), OFF OFF _____
 - e. RECORD time AFW-10A opened. _____ TIME _____

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KEWAUNEE NUCLEAR POWER PLANT

TITLE Turbine Driven AFW Pump and Valve
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INITIALS _____

6.6 CLOSE AFW-10A. CLOSED _____

6.6.1 Second Operator Verification: CLOSED _____
AFW-10A CLOSED.6.6.2 VERIFY Annunciator, AUX FEEDWATER DISCHARGE ON _____
XOVR CLOSED (47063-L), ON

6.6.3 RECORD time AFW-10A closed. _____ TIME _____

6.7 CLOSE AFW-10B. CLOSED _____

6.7.1 RECORD time AFW-10B closed. _____ TIME _____

6.7.2 Second Operator Verification: CLOSED _____
AFW-10B CLOSED.6.8 VERIFY MS-102/MV-32040, T/D AFW Pump Main Steam Isol, ON _____
green indicating light, ON.~~6.9~~ Test position indication limit switches on MS-103, T/D
AFW Pump Trip and Throttle Valve, and trip mechanism
freedom of movement:~~6.9.1~~ Locally TRIP MS-103 by pushing down Emergency TRIPPED _____
Push Trip Lever located on top of turbine.~~6.9.2~~ Observe that latch-up lever on valve has CLOSED _____
released causing MS-103 to CLOSE.~~6.9.3~~ VERIFY Annunciator, T/D AFW PUMP TRIPPED ON _____
(47061-N), ON.~~6.9.4~~ VERIFY SER, T/D AFW Pump T & T valve Closed ALARM _____
(49001-193), in ALARM.~~6.9.5~~ RESET Emergency Push Trip Lever mechanism by RESET _____
moving trip connecting rod against spring
tension until Trip Lever re-latches.~~6.9.6~~ RESET MS-103 by turning handwheel clockwise RESET _____
until latch lever engages with trip hook.~~6.9.7~~ Slowly OPEN MS-103 by turning handwheel OPEN _____
counter-clockwise.CONTINUED

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6.9

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6.9.8 WHEN MS-103 is fully OPEN, turn handwheel 1/4 turn in the CLOSED direction (clockwise). 1/4 TURN _____
CLOSED _____

6.9.9 VERIFY annunciator, T/D AFW PUMP TRIPPED (47061-N), OFF. OFF _____

6.9.10 VERIFY SER, T/D AFW Pump T & T valve Closed (49001-193), NORMAL. NORMAL _____

6.10 Locally PERFORM following:

6.10.1 RECORD Turb Drvn Aux FW Pump Suction After _____psig _____
Strainer pressure, PI-11288.

6.10.2 POSITION T/D AFW Pump Tachometer (18525) to ON _____

NOTE: MS-102 opening time is determined from red light on to green light off.

NOTE: Timing to reach full discharge pressure is determined from switch actuation to peak discharge pressure of 1700-1750 psig.

NOTE: WHEN the T/D AFW Pump is started, all S/G Blowdown Isolation valves will close, unless Trip Bypass is activated.

6.11 RECORD cycle times for MS-102/MV-32040, T/D AFW Pump Main Steam Isol.

6.11.1 START the T/D AFW Pump, by HOLDING MS-102 in START until red light comes ON, THEN RELEASE switch to AUTO. STARTED _____

a. RECORD MS-102 opening time. _____sec _____

1. RECORD time MS-102 opened. _____TIME _____

b. RECORD time to reach full discharge pressure. _____sec _____

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6.12 WHEN the T/D AFW Pump has run for 10 minutes, locally
PERFORM following:

6.12.1 VERIFY turbine speed ~~3590-3610~~³⁶²⁰⁻³⁶⁴⁰ rpm, _____ rpm
Tachometer (18525).

IF turbine speed is outside its test range
of ~~3590-3610~~³⁶²⁰⁻³⁶⁴⁰ rpm, PERFORM following:

ADJUST turbine speed to 3590-3610 rpm ADJUST / NA _____
using Governor side-mounted Manual
Speed Adjust knob.

2. INITIATE a KAP INITIATED/NA _____

6.12.2 RECORD turbine speed, Tachometer (18525). _____ rpm

6.12.3 Locally RECORD Turbine Driven Aux Feedwater
Pump Discharge pressure, PI-11255. _____ psig

6.12.4 Locally RECORD Turb Drvn Aux FW Pump Suction
After Strainer pressure, PI-11288. _____ psig

6.12.5 CALCULATE pump differential pressure by
subtracting Step 6.12.4 from Step 6.12.3. _____ psid

6.12.6 Locally RECORD T/D AFW Pump balance line flow
from ultrasonic flowmeter. _____ gpm

6.12.7 VERIFY following check valves are
partially open by OBSERVING normal pump
operation:

- MU-301, Condensate Storage Tanks Supply to AFW Pumps. _____
- MU-311C, Condensate Storage Tanks Supply to T/D AFW Pump. _____

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NOTE: In the following steps, MS-100A and MS-100B are individually closed to test that check valves MS-101A and MS-101B are operable.

6.13 RECORD cycle times for MS-100A/MV-32038, S/G A Steam Supply To T/D AFW Pump.

6.13.1 CLOSE MS-100A. CLOSED _____

a. RECORD MS-100A closing time. _____ sec _____

b. VERIFY annunciator, T/D AFW PUMP ABNORMAL (47062-N), ON. ON _____

NOTE: Flow through check valve MS-101B is verified by acceptable pump operation.

c. VERIFY flow through check valve MS-101B. VERIFIED _____

6.13.2 OPEN MS-100A. OPEN _____

a. RECORD MS-100A opening time. _____ sec _____

b. VERIFY annunciator, T/D AFW PUMP ABNORMAL (47062-N), OFF. OFF _____

c. Second Operator Verification: MS-100A OPEN. OPEN _____

6.14 RECORD cycle times for MS-100B/MV-32039, S/G B Steam Supply To T/D AFW Pump.

6.14.1 CLOSE MS-100B. CLOSED _____

a. RECORD MS-100B closing time. _____ sec _____

b. VERIFY annunciator, T/D AFW PUMP ABNORMAL (47062-N), ON. ON _____

NOTE: Flow through check valve MS-101A is verified by acceptable pump operation.

c. VERIFY flow through check valve MS-101A. VERIFIED _____

6.14.2 OPEN MS-100B. OPEN _____

a. RECORD MS-100B opening time. _____ sec _____

CONTINUED

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6.14.2
CONTINUEDb. VERIFY annunciator, T/D AFW PUMP ABNORMAL OFF _____
(47062-N), OFF.c. Second Operator Verification: OPEN _____
MS-100B OPEN.

6.15 REQUEST Maintenance perform SP 55-177. MEASURED _____

NOTE: MS-102/MV-32040, T/D AFW Pump Main Steam Isol, green light will
NOT illuminate while switch is being held in STOP position.**6.16** RECORD cycle times for MS-102/MV-32040, T/D AFW Pump
Main Steam Isol.**6.16.1** STOP the T/D AFW Pump by POSITIONING MS-102 STOPPED _____
control switch to STOP.**a** RECORD MS-102 closing time. _____ sec _____

1. RECORD time MS-102 closed. _____ TIME _____

b VERIFY MS-102 is CLOSED and in AUTO. CLOSED/AUTO _____**c** Second Operator Verification: CLOSED/AUTO _____
MS-102 CLOSED and in AUTO.d. VERIFY SP 55-177 data for T/D AFW Pump ACCEPTABLE _____
ACCEPTABLE.**6.17** IF required, STARTUP Blowdown System per N-BT-07A. STARTED/NA _____
(circle one)6.18 REQUEST I&C REMOVE ultrasonic flowmeter from the T/D REMOVED _____
AFW Pump balance line.**6.19** Locally PERFORM following:**6.19.1** VERIFY pump and turbine are completely STOPPED _____
STOPPED.**6.19.2** POSITION T/D AFW Pump Tachometer (18525) to OFF _____
OFF.CONTINUED

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6.19

CONTINUED

~~6.19.3~~ VERIFY TD AFW Pump oil level within "Normal
Range Operating".

YES _____

~~6.19.4~~ STOP TD Aux FW Pump Aux Lube Oil Pump.

STOP _____

6.20 PERFORM following:

6.20.1 Locally VERIFY Turbine Driven Aux Feedwater
Pump Discharge pressure, PI-11255, is \leq 50
psig.

VERIFIED _____

6.20.2 OPEN AFW-10A/MV-32027, AFW Train A Crossover
Valve.

OPEN _____

a. RECORD time AFW-10A opened.

_____ TIME _____

6.20.3 Second Operator Verification:
AFW-10A OPEN.

OPEN _____

6.21 PERFORM following:

6.21.1 Locally VERIFY Turbine Driven Aux Feedwater
Pump Discharge pressure, PI-11255, is \leq 50
psig.

VERIFIED _____

6.21.2 OPEN AFW-10B/MV-32028, AFW Train B Crossover
Valve.

OPEN _____

a. RECORD time AFW-10B opened.

_____ TIME _____

6.21.3 VERIFY annunciator, AUX FEEDWATER DISCHARGE
XOVR CLOSED (47063-L), OFF.

OFF _____

6.21.4 Second Operator Verification:
AFW-10B OPEN.

OPEN _____

6.22 Service Water Valve Test:

6.22.1 Locally CLOSE SW-500A, SW Supply to T/D AFW
Pump.

CLOSED _____

CONTINUED

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6.22

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6.22.2 Locally THROTTLE OPEN SW-510, T/D AFW Pump
Blowdown to trench, to flush piping downstream
of SW-500B until water is clear. FLUSHED _____

a. VERIFY flow through check valve SW-501B by
observing flow out of SW-510. FLOW _____

6.22.3 Locally OPEN SW-500A. OPEN _____

6.22.4 Locally CLOSE SW-500B, SW Supply to T/D AFW
Pump. CLOSED _____

6.22.5 Flush piping downstream of SW-500A until water
is clear. FLUSHED _____

a. VERIFY flow through check valve SW-501A by
observing flow out of SW-510. FLOW _____

6.22.6 Locally CLOSE SW-500A. CLOSED _____

a. VERIFY flow through SW-510 has STOPPED. VERIFIED _____

b. RECORD time SW-500A closed. _____ TIME _____

6.22.7 RECORD cycle time for SW-502/MV-32031, Service
Water To T/D AFW Pump Isol.

a. RECORD SW-502 opening time. _____ sec _____

b. RECORD time SW-502 opened. _____ TIME _____

6.22.8 Backflush Makeup Water through SW-502, until
clear water drains from SW-510. FLUSHED _____

6.22.9 RECORD cycle time for SW-502/MV-32031, Service
Water To T/D AFW Pump Isol.

a. RECORD SW-502 closing time. _____ sec _____

b. RECORD time SW-502 closed. _____ TIME _____

c. Second Operator Verification:
SW-502 CLOSED. CLOSED _____

CONTINUED

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6.22

CONTINUED

6.22.10 Locally CLOSE SW-510.

CLOSED _____

a. Second Operator Verification:
SW-510 CLOSED.

CLOSED _____

6.22.11 Locally OPEN SW-500A.

OPEN _____

a. Second Operator Verification:
SW-500A OPEN.

OPEN _____

6.22.12 Locally OPEN SW-500B.

OPEN _____

a. RECORD time SW-500B opened.

_____ TIME _____

b. Second Operator Verification:
SW-500B OPEN.

OPEN _____

~~6.23~~ RECORD data on Data Sheet No. 1.

RECORDED _____

~~6.24~~ COMPLETE Data Sheet 2 and ROUTE a copy to Performance
Indicator Technician.

COMPLETED _____

7.0 PROBLEMS

~~7.1~~ Any problems encountered during test or any parameters
on Data Sheet No. 1 at Action Values?

YES/NO _____

IF yes, INITIATE a Kewaunee Assessment Process (KAP)
Administrative Work REQUEST. KAP No. _____ (or copy
attached).

8.0 ACCEPTANCE CRITERIA

~~8.1~~ Acceptance criteria for each component is as noted in Data Sheet
No. 1.

8.2 AFW Balance Line Flow does NOT have an acceptance criteria.
IST Engineering trends balance line flow to determine if the pump is
degrading. A KAP is NOT needed to address flow outside the Reference
Value.

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9.0 REFERENCES

- 9.1 Technical Specifications, 4.2, Inservice Inspection Requirements and 4.8
- 9.2 Inservice Inspection of Nuclear Power Plant Components, Section XI, 1989
- 9.3 OEA 89-290 (SOER 89-1) "Testing of Steam/Pump Overspeed TRIP Devices"
- 9.4 NRC Inspection Report 50-305/91002 (DRS) - Acceptance Values for Suction Pressure
- 9.5 Safety Evaluation of the IST Program (TAC No. 54739)
- 9.6 ASME/ANSI OMa-1988, Addenda to ASME/ANSI OM-1987
- 9.7 IST Licensing Basis Document

PERFORMED BY _____ DATE _____

PERFORMED BY _____ DATE _____

PERFORMED BY _____ DATE _____

PERFORMED BY _____ DATE _____

Data Sheet reviewed and IST data within acceptance criteria:

SHIFT MANAGER _____ DATE _____

Management review:

SUPT-PLANT OPERATIONS _____ DATE _____

ASST MGR-PLANT OPERATIONS _____ DATE _____

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DATA SHEET NO. 1

(1 of 2)

DATE _____

Step	Parameter	Value	Reference Value	Action Values (A)	Limiting Values
6.3.2	AFW-10A Closing Time		15 sec	<13 >17	<13 >17
6.3.4	AFW-10A Opening Time		15 sec	<13 >17	<13 >17
6.4.2	AFW-10B Closing Time		16 sec	<14 >18	<14 >18
6.4.4	AFW-10B Opening Time		16 sec	<14 >18	<14 >18
6.11.1.a	MS-102 Opening Time		13 sec	<12 >14	<12 >14
6.11.1.b	TD Aux FW Pump Time to Full Discharge Pressure		50 sec	>60	>60
6.12.2	Turbine Speed		3620-3640 3590-3610 rpm	N/A	N/A
6.12.4	T/D AFW Pump Suction Pressure		8-22 psig	<5	<5
6.12.5	T/D AFW Pump Delta-P		1710 psid	<1635 >1881	<1538
6.12.6	T/D AFW Pump Balance Line Flow		21-27 gpm	None-See Step 8.2	None
6.13.1.a	MS-100A Closing Time		19 sec	<17 >21	<17 >21
6.13.1.c	Check Vlv MS-101B Open		Pump Operation Normal	Pump Operation Abnormal	N/A
6.13.2.a	MS-100A Opening Time		19 sec	<17 >21	<17 >21
6.14.1.a	MS-100B Closing Time		20 sec	<17 >23	<17 >23
6.14.1.c	Check Vlv MS-101A Open		Pump Operation Normal	Pump Operation Abnormal	N/A

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DATA SHEET NO. 1
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Step	Parameter	Value	Reference Value	Action Values (A)	Limiting Values
6.14.2.a	MS-100B Opening Time	_____	20 sec	<17 >23	<17 >23
6.16.1.a	MS-102 Closing Time	_____	16 sec	<14 >18	<14 >18
6.22.2.a	Check Vlv SW-501B Open	_____	Flow	<u>NO</u> Flow	N/A
6.22.5.a	Check Vlv SW-501A Open	_____	Flow	<u>NO</u> Flow	N/A
6.22.7.a	SW-502 Opening Time	_____	15 sec	<13 >17	<13 >17
6.22.9.a	SW-502 Closing Time	_____	15 sec	<13 >17	<13 >17

(A) IF ACTION VALUE IS REACHED:

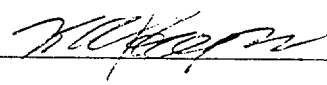
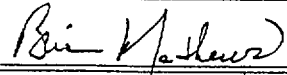
Component shall be declared inoperable and NOT returned to service until condition is corrected.

WISCONSIN PUBLIC SERVICE CORPORATION**NO.** SP-05B-105**KEWAUNEE NUCLEAR POWER PLANT****TITLE** Turbine Driven AFW Pump and Valve
Test - IST**SURVEILLANCE PROCEDURE****DATE** MAR 27 2001**PAGE** 16 of 16**DATA SHEET NO. 2**

Procedure Step	Parameter	Value
6.3.2.a	Time AFW-10A closed	
6.3.4.a	Time AFW-10A opened	
6.4.2.a	Time AFW-10B closed	
6.4.4.a	Time AFW-10B opened	
6.5.2.b (S)	Time AFW-10A L/R switch to Local	
6.5.4.c (S)	Time AFW-10A opened	
6.5.5.c (S)	Time AFW-10A closed	
6.5.6.a (S)	Time AFW-10A L/R switch to Remote	
6.5.7.e (S)	Time AFW-10A opened	
6.6.3	Time AFW-10A closed	
6.7.1	Time AFW-10B closed	
6.11.1.a.1	Time MS-102 opened	
6.16.1.a.1	Time MS-102 closed	
6.20.2.a	Time AFW-10A opened	
6.21.2.a	Time AFW-10B opened	
6.22.6.b	Time SW-500A closed	
6.22.7.a	SW-502 open cycle time	
6.22.7.b	Time SW-502 opened	
6.22.9.a	SW-502 closed cycle time	
6.22.9.b	Time SW-502 closed	
6.22.12.a	Time SW-500B opened	

Performed by: _____ Date: _____

Route a copy to: Performance Indicator Technician

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		Title Directive and Procedure Administrative Controls	
		Date FEB 15 2000	Page 1 of 19
Prepared By Mike Bennett		Approved By 	
Reviewed By 			
Nuclear Safety Related <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	PORC Review Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	SRO Approval Of Temporary Changes Required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

1.0 Purpose

- 1.1 This procedure provides requirements for administrative control of directives and procedures, to include: preparation, review, approval, deletion, and distribution.

2.0 General Notes

- 2.1 For Temporary Procedure Changes during use, see "Procedure Use and Adherence," GNP-03.01.03.
- 2.2 For simplification, the term "Process Owner" will be used throughout this GNP and should be interpreted to mean "Process Owner (or designee)."
- 2.3 Procedures with scheduled use frequency greater than 48 months shall be reviewed within 2 years of actual use. Integrated Plant Emergency Operating Procedures (IPEOPs) require a biennial review regardless of use.

3.0 Definitions

- 3.1 None

4.0 Precautions and Limitations

- 4.1 None

5.0 Initial Conditions

- 5.1 None

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6.0 Procedure

Note

*Step 6.1 describes the process to follow for New procedures, procedure **Reviews**, **Revisions**, or **Deletions**.*

Note

*Step 6.2 describes the process to follow if the **Technical Content** of a procedure is inadequate.*

Note

*Step 6.3 describes the process to follow for **Requesting Revisions** to procedures.*

Note

Procedures developed by Vendors or Contractors for use at Kewaunee Nuclear Power Plant (KNPP) shall follow the asterisk () steps for review and approval beginning in Step 6.4.*

6.1 Review of Directives and Procedures

6.1.1 The **Process Owner** shall:

- 6.1.1.1 Prepare submitted comments for proposed changes or deletions for review.
- 6.1.1.2 Gather all information on pending changes.
- 6.1.1.3 Assign knowledgeable individual to review AND, IF necessary, revise the directive or procedure.
- 6.1.1.4 Notify stakeholder(s) of the review and have comments sent to the Author.
- 6.1.1.5 Forward package to assigned Author.

6.1.2 The **Author** shall:

- 6.1.2.1 Review the package received from the Process Owner.
- 6.1.2.2 IF this is a new directive/procedure or revision to one, THEN go to Step 6.4.
- 6.1.2.3 IF a deletion is recommended, THEN go to Step 6.5.
- 6.1.2.4 IF this is a procedure review, THEN evaluate the directive or procedure against the criteria established on the "Directive/Procedure Review Data Sheet," Form GNP-03.01.01-1.
 - 6.1.2.4.1 IF any of the questions (1-3) on Form GNP-03.01.01-1 are answered NO, THEN the procedure is technically inadequate, go to Step 6.2.

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6.1.2.4.2 IF any of the questions (4-6) are answered NO or question 7 is answered YES, THEN a revision is recommended:

- a. Go to Step 6.3 if the revision does not need to be incorporated immediately, OR
- b. Go to Step 6.4 to process the revision immediately.

6.1.2.5 IF a review indicates that there is no need to revise the directive or procedure:

6.1.2.5.1 Complete Form GNP-03.01.01-1.

6.1.2.5.2 Send Form GNP-03.01.01-1 to the KNPP QA Vault.

Note

Use the author signature date from Form GNP-03.01.01-1 as the completion date.

6.1.2.5.3 IF required, update Planning & Scheduling (NAD-08.01).

6.1.2.6 Directive or procedure review is complete.

6.2 Technically Inadequate Procedures

Note

Technical inadequacy should be based strictly on the determination that the procedure is not adequate to perform its purpose.

Note

The following situations may cause a procedure to be Technically Inadequate:

- a. *The need for a temporary change to a safety related procedure.*
- b. *Procedure cannot be performed as written.*
- c. *Procedure performance may result in an unsafe condition.*

Note

Criteria such as efficiency, procedure format, level of detail, etc., are NOT typically elements that render a procedure inadequate.

6.2.1 IF the Author determines the procedure is technically inadequate, THEN:

6.2.1.1 Complete and attach "Procedure Status Sheet," Form GNP-03.01.01-4, and forward to appropriate Process Owner.

6.2.1.1.1 The Process Owner shall attach completed Form GNP-03.01.01-4 to the procedure in their controlled file, AND

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6.2.1.1.2 . Attach a copy of Form GNP-03.01.01-4 to other controlled files.

6.2.1.2 IF the procedure is required for use prior to revision, THEN initiate a temporary procedure change per "Procedure Use and Adherence," GNP-03.01.03, Step 6.2, OR

6.2.1.3 IF the procedure is not required for use prior to revision, THEN initiate a procedure revision, go to Step 6.4.

6.3 Requesting Revisions to Directives and Procedures

6.3.1 IF the recommended revision is to an internal department directive or procedure, THEN:

6.3.1.1 Mark up the procedure or verbally communicate the requested change to the Process Owner or Author.

6.3.2 IF the recommended revision is to an external department directive or procedure, THEN:

6.3.2.1 Complete the top portion of "Procedure Revision Request Form," Form GNP-03.01.01-5, and forward along with a marked up directive or procedure to the Process Owner.

6.3.2.1.1 The Process Owner shall review the revision request and determine if and how soon a change needs to be made.

6.3.2.2 IF the revision request is approved, THEN:

6.3.2.2.1 The Process Owner shall forward completed Form GNP-03.01.01-5 to the Author to initiate the revision request, AND

6.3.2.2.2 Return a copy of completed Form GNP-03.01.01-5 to requestor.

6.3.2.3 IF the revision request is rejected, THEN:

6.3.2.3.1 The Process Owner shall return a copy of completed Form GNP-03.01.01-5 with explanation of rejection to the requestor, AND

6.3.2.3.2 Once the request has been processed, the original Form GNP-03.01.01-5 can be discarded.

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6.4 Preparing and Reviewing Directives and Procedures

Note

Revisions are required to ensure:

- a. *Format and content conform with applicable portions of the "Procedure Writer's Guide," GNP-03.01.02, and the OQAP.*
- b. *Procedure adequately covers the system or subsystem.*
- c. *Procedure conforms with current flow and logic drawings.*
- d. *IF the procedure is an IPEOP, revisions are to ensure procedure conforms with the IPEOP Writers Guide and the Westinghouse Emergency Response Guidelines.*

6.4.1 The **Author** shall:

- 6.4.1.1 Assure all records created by the procedure have been identified and listed appropriately in the Records section of that procedure.
- 6.4.1.2 IF there is a commitment being addressed in the procedure, THEN reference the commitment tracking system COMTRAK number in the References and on "Revision Tracking and Processing Record," Form GNP-03.01.01-2 to prevent undoing a commitment.
- 6.4.1.3 IF a revision is being made in accordance with a regulatory or program requirement, THEN the requirement shall be included in the References.
- 6.4.1.4 Verify the directive or procedure has been written consistent with the requirements of "Control of Safeguards Information," NAD-15.03.

Note

Designated personnel shall maintain a current Table of Contents indicating revision status and coordinate the assignment of revision numbering for directives and procedures.

Note

Identify each directive and procedure by number, title, and revision date, and indicate if the procedure is safety related or non-safety related.

- 6.4.1.5 IF this is a new directive or procedure, THEN obtain a new number from the appropriate work group. Deleted or previously used numbers shall not be reused.

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*6.4.1.6 Initiate or update Form GNP-03.01.01-2.

6.4.1.6.1 List a description and reason for all recommended changes.

6.4.1.7 Attach Form GNP-03.01.01-2 to the directive or procedure and forward to Process Owner.

Note

Revisions made to Vendor/Contractor procedures are to be made in accordance with the Vendor/Contractor procedures. Prior to use at KNPP, the new revision shall be reviewed and approved using the KNPP Procedure Review and Approval process.

Note

For Vendor/Contractor procedures, the Process Owner could be the Responsible Engineer/Supervisor.

6.4.2 The **Process Owner** shall:

*6.4.2.1 Identify appropriate stakeholders for review of the new or revised directive or procedure.

*6.4.2.1.1 Ensure stakeholders receive review package for comment.

*6.4.2.1.2 For procedures which involve plant maintenance activities, a QP review shall be obtained if the procedure is an original or if the procedure revision involves a change of intent.

*6.4.2.2 Reconcile any comments received with the Author.

*6.4.2.3 IF a new or revised procedure requires a walk-through to be performed, THEN indicate "YES" on Form GNP-03.01.01-2 and schedule the walk-through.

*6.4.2.4 Ensure consistency with other elements of the process or program.

*6.4.2.5 IF applicable, ensure procedure identifies retest requirements.

*6.4.2.6 Identify the appropriate designation: Nuclear Safety Related, PORC Review Required, and SRO Approval of Temporary Changes Required, in the title block of the procedure (see Attachment A and B of this procedure).

*6.4.2.7 Ensure that the Technical Review of the procedure is conducted by someone other than the Author of the procedure.

*6.4.2.8 Forward directive or procedure to the Technical Reviewer.

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6.4.3 The Technical Reviewer shall:

- *6.4.3.1 Review the entire directive or procedure and ensure technical content is adequate.
- *6.4.3.2 Ensure directive or procedure commitments and requirements are satisfied and maintained.
- *6.4.3.3 Verify compliance with NAD-15.03.
- 6.4.3.4 Ensure the title block of procedures reflects the appropriate designation: Nuclear Safety Related, PORC Review Required, and SRO Approval of Temporary Changes Required. See Attachment A and B of this procedure.

Note

Updates to Procedural Implementation of Technical Specification list (PITS) are made:

- a. *When Technical Specification line items are added and/or deleted, OR*
- b. *When directives or procedures are added and/or deleted that affect a Technical Specification line item.*

Note

A directive or procedure shall be included in the PITS list if:

- a. *It implements a Technical Specification line item, OR*
- b. *Either the directive, procedure or the Technical Specification line item may be affected by a change to the other.*
- 6.4.3.5 Notify a Quality Programs Process Leader of any revisions needed to the PITS list.
- *6.4.3.6 IF the proposed revision is not acceptable or there are additional comments, THEN return revision package to the Process Owner/Author for reconciliation, go to Step 6.4.2.2.
- *6.4.3.7 IF the technical reviewer finds the proposed revision acceptable and the change represents a change of intent as defined in NAD-03.01, THEN:

- *6.4.3.7.1 Implement "Guide to Safety Review, Safety Evaluations, and Second Level Reviews," GNP-04.03.01.

Note

A Second Level Review of the Safety Review for procedures is not required.

- *6.4.3.7.2 Attach "Safety Review," Form GNP-04.03.01-1, to document the completion of the safety review.

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*6.4.3.7.3 If applicable, attach the "Safety Evaluation Report," Form GNP-04.03.01-3, to document the completion of the safety evaluation.

*6.4.3.7.4 Sign and date "Technical Review" section on Form GNP-03.01.01-2 and forward to the Editor.

6.4.3.8 IF the Technical Reviewer finds the proposed revision acceptable and the change does not represent a change of intent as defined in NAD-03.01, THEN:

6.4.3.8.1 Sign and date "Technical Review" section on Form GNP-03.01.01-2 and forward to the Editor.

6.4.4 The **Editor** shall:

Note

The following steps may be performed several times throughout this process.

6.4.4.1 Review new or revised directive or procedure for editorial changes.

6.4.4.2 Ensure format compliance with Procedure Writer's Guide.

6.4.4.3 Check Form GNP-03.01.01-2 for completion.

6.4.4.4 IF required, THEN route drafts of new or revised directives or procedures to stakeholders for comments.

6.4.4.5 Return comments to the Process Owner/Author for verification. Go to Step 6.4.2.2.

6.4.4.6 Make final changes as directed by the Author or Process Owner.

6.4.4.7 Perform final editorial review.

6.4.4.8 Sign and date "Editorial Review" portion of Form GNP-03.01.01-2.

*6.4.4.9 Forward completed directive or procedure to Process Owner for final review and approval. Go to Step 6.6.

6.5 Deleting Directives and Procedures

6.5.1 To delete directives and procedures, perform the following:

6.5.1.1 Initiate Form GNP-03.01.01-2 and use the next revision letter of the procedure.

6.5.1.2 Using Form GNP-03.01.01-2, describe the reason for deletion.

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6.5.1.3 Attach Form GNP-03.01.01-2 to a copy of the directive or procedure.

6.5.1.4 Forward package to the Process Owner.

6.5.1.5 The Process Owner shall:

6.5.1.5.1 Ensure appropriate commitments are not being arbitrarily removed or neglected.

6.5.1.5.2 Ensure stakeholders are notified.

6.5.1.5.3 Notify a Quality Programs Process Leader to ensure updates to the PITS list are made.

6.5.1.5.4 IF safety related or PORC review required, THEN schedule the proposed deleted procedure for PORC review.

6.5.1.5.5 Forward Form GNP-03.01.01-2 for distribution. Go to Step 6.7.

6.5.1.6 IF required, notify Planning & Scheduling of the deletion (see NAD-08.01).

6.5.1.7 Directive or procedure deletion complete.

*6.6 Final Review and Approval of Directives and Procedures

*6.6.1 IF this is a new procedure, THEN PORC review is required.

*6.6.2 IF a PORC review is required, THEN the Process Owner shall:

*6.6.2.1 Schedule the procedure for PORC.

*6.6.2.2 Gather material for PORC review.

*6.6.2.3 Unless presented by a Standing Subcommittee Chairman or designee, distribute the procedure (or summary of changes) to all regular members of PORC in advance of PORC meeting.

*6.6.2.4 IF rejected, THEN return the procedure and comments to the Author.

*6.6.2.4.1 The Author shall:

a. Resolve comments from PORC.

b. Obtain a Technical Review of the changes.

c. Return the procedure to PORC for final review and approval.

*6.6.2.5 IF the procedure is approved pending resolution of comments, THEN return the procedure and comments to the Author.

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6.6.2.5.1 The Author shall:

- a. Resolve comments from PORC.
- b. Obtain a Technical Review of the changes.
- c. Send to Process Owner for final signatures.

*6.6.2.6 Following PORC approval, the Process Owner shall obtain the required signatures.

6.6.2.6.2 Forward approved procedure for distribution. Go to Step 6.7.

*6.6.3 IF the procedure revision is to a safety related procedure that does not change the intent of the procedure or the procedure does not require PORC review, THEN:

6.6.3.1 The Process Owner shall obtain the required signatures in the title block of directive or procedure.

6.6.3.2 Forward approved directive or procedure for distribution. Go to Step 6.7.

6.6.4 IF required, notify Planning & Scheduling of the addition or revision (see NAD-08.01).

6.6.5 Directive or procedure review and approval is complete.

6.7 Distribution

Note

Controlled files that shall be used to perform work are procedures in the originating organization, in the Control Room, and the Technical Support Center (TSC).

6.7.1 IF the procedure is approved for advanced issue, THEN the Process Owner shall update each of the controlled files prior to use.

6.7.2 Appropriate personnel shall maintain a distribution list of manual owners using a Directive or Procedure Transmittal Form.

6.7.3 Filing instructions for manual owners shall be identified on the Directive or Procedure Transmittal Form.

6.7.4 Update Directive or Procedure Table of Contents.

6.7.5 Distribute Directives or Procedures to those individuals on the Directive or Procedure Transmittal Form.

6.7.6 Ensure all Directive or Procedure Transmittal Forms are signed and returned.

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6.7.7 Forward Form GNP-03.01.01-2, with the original approved directive or procedure, to the KNPP QA Vault.

7.0 Final Conditions

7.1 None

8.0 References

- 8.1 COMTRAK 85-224 - Step 6.4.1.2 include COMTRAK reference in document reference section
- 8.2 COMTRAK 90-022, Item 3 (Steps 6.4.1.4 and 6.4.3.3) - Safeguards Information
- 8.3 COMTRAK 98-046
- 8.4 OEA 88-016, Functional Degradation of Safety Related Systems Caused by Inadequate Safety Reviews - Oyster Creek
- 8.5 OEA 90-136, Request for Operational Experience Review of In-house Experience LER 89-03, 89-08, 90-02, 90-05, and IR 90-54
- 8.6 OEA 92-201/SOER 92-01, Reducing the Occurrence of Plant Events Through Improved Human Performance
- 8.7 QA Open Item 94-025 A&B (Step 6.4.3.5)
- 8.8 QP-03.07.01, Revision and Control of PITS/PATS

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8.9 NAD-05.14, Revision and Control of the KNPP Technical Specifications and Operating License

8.10 NRC Inspection Report 95-008, Notice of Violation – “Procedure Status Sheet,” Form GNP-03.01.01-4

8.11 QAR 98-003 (Step 6.4.2.1.2)

9.0 Records

9.1 The following QA records and non-QA records are identified in this directive/procedure and are listed on the KNPP Records Retention Schedule. These records shall be maintained according to the KNPP Records Management Program.

9.1.1 QA Records

- Directive/Procedure Review Data Sheet, Form GNP-03.01.01-1
- Revision Tracking and Processing Record, Form GNP-03.01.01-2
- Revision Tracking and Processing Record - Continuation Sheet, Form GNP-03.01.01-3

9.1.2 Non-QA Records

- Procedure Status Sheet, Form GNP-03.01.01-4
- Procedure Revision Request Form, Form GNP-03.01.01-5
- Transmittal Forms

DIRECTIVE/PROCEDURE REVIEW DATA SHEET

NUMBER _____ REVISION _____
DATE _____
TITLE _____

Circle the appropriate answer:

- | | | | | |
|----|--|-----|----|----|
| 1. | Is the technical content adequate? | YES | NO | |
| 2. | Is procedure adequate to cover task? | YES | NO | |
| 3. | Does procedure satisfy current flow & logic diagrams? | YES | NO | NA |
| 4. | Is the Infrequently Performed Test and Evolutions determination per NAD-03.01 still correct? | YES | NO | NA |
| 5. | Are the references and/or cross references correct? | YES | NO | |

IF any of the above questions are answered NO, THEN give your recommended changes on a marked up copy of the procedure along with a "Revision Tracking and Processing Record," Form GNP-03.01.01-2.

- | | | | |
|----|---|-----|----|
| 6. | Does the procedure conform to the applicable sections of the Procedure Writer's Guide, and/or its amended sections, or the IPEOP Writer's Manual? | YES | NO |
|----|---|-----|----|

IF the above question is answered NO, THEN give your recommended changes on a marked up copy of the procedure along with a "Revision Tracking and Processing Record," Form GNP-03.01.01-2, OR explain why deviation from guidance is acceptable in the Resolution Section below.

- | | | | |
|----|---|-----|----|
| 7. | Are there process improvements that may be appropriate to implement at this time? | YES | NO |
|----|---|-----|----|

IF the above question is answered YES, THEN forward your recommendations to the appropriate Process Owner for changes.

Resolution:

Author: _____ Date: _____

REVISION TRACKING AND PROCESSING RECORD

Directive/Procedure No. _____ Next Revision _____ Page 1 of _____

Directive/Procedure Title _____

Describe Change	Describe Reason

_____ Continuation Sheet attached.

Author _____ Date _____

Is the change a change of intent as defined in NAD-03.01? Yes / No If Yes, a Safety Review is required.

"Safety Review," Form GNP-04.03.01-1 attached? Yes / No

"Safety Evaluation Report," Form GNP-04.03.01-3 attached? Yes / No

Technical Review _____ Date _____

Walk-through? Yes / No Process Owners Initials: _____

Editorial Review _____ Date _____

Revision Review? YES _____ NO _____ (Operations Only)

REVISION TRACKING AND PROCESSING RECORD - CONTINUATION SHEET

Directive/Procedure No. _____ Next Revision _____ Page _____ of _____

Describe Change	Describe Reason

PROCEDURE REVISION REQUEST FORM

PROCEDURE NO. _____ REV. _____

PROCEDURE TITLE: _____

Requested Change (attach mark-up as necessary):

Reason (include date needed if applicable):

Requested By: _____ Date: _____

DISPOSITION

- ☐ **Approved** (☐ Immediate Action ☐ Next Revision)
☐ **Rejected** (include reason below)

Comments:

Process Owner: _____ Date: _____

(Forward copy to requestor and original to Author)

PROCEDURE STATUS SHEET

PROCEDURE NO. _____ REV. _____

PROCEDURE TITLE: _____

NOTE: *Check all that apply.*

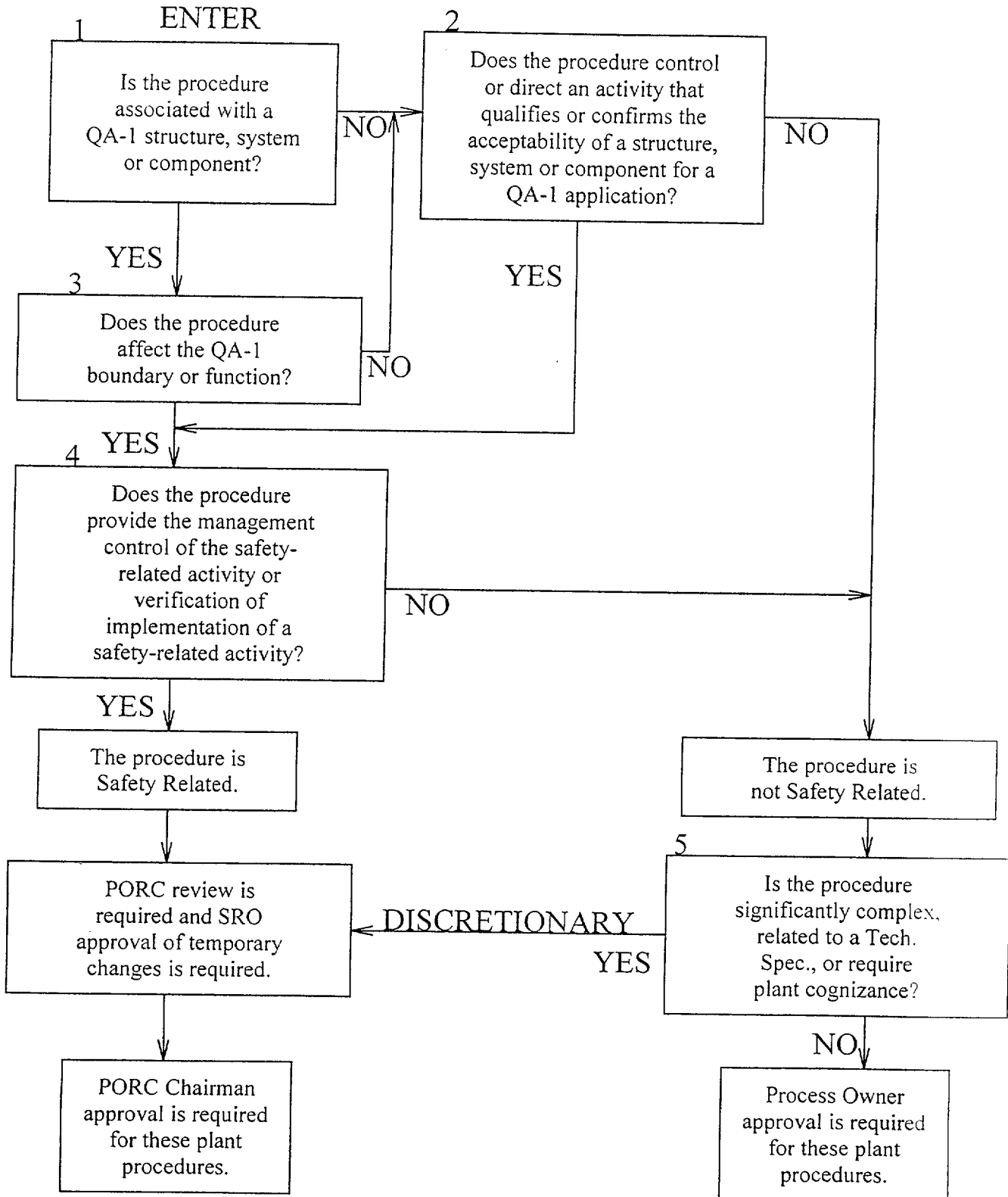
- * ☐ IDENTIFIED TECHNICAL CONTENT(S) INADEQUATE
 - ☐ ENTIRE PROCEDURE - SEE COMMENTS
 - ☐ PARTIAL PROCEDURE - SEE COMMENTS
- * ☐ REQUIRES REVIEW PRIOR TO USE
 - ☐ TEMPORARY CHANGE - SEE COMMENTS
 - ☐ NOT ACCEPTABLE FOR USE ☐ ACCEPTABLE FOR USE

COMMENTS: (Sufficient detail(s) required.)

INITIATED BY _____ DATE _____

*cc: CONTROL ROOM
TSC - LOWER

GUIDANCE FOR DETERMINING IF A PLANT PROCEDURE IS SAFETY RELATED



GUIDANCE FOR USING ATTACHMENT A

Decision Box

- 1 IS THE PROCEDURE ASSOCIATED WITH A QA-1 STRUCTURE, SYSTEM, OR COMPONENT?

Any components referenced, described, manipulated, or read should be evaluated for QA type. QA type shall be appropriately determined using sources, such as flow diagrams, electrical circuit diagrams, PPFIS, and Purchase Orders. Discrepancies or type change are to be resolved by the QA typing committee in accordance with its charter and GNP-01.01.01 and GNP-01.01.02.

- 2 DOES THE PROCEDURE CONTROL OR DIRECT AN ACTIVITY THAT QUALIFIES OR CONFIRMS THE ACCEPTABILITY OF A STRUCTURE, SYSTEM, OR COMPONENT FOR A QA-1 APPLICATION?

Engineering analysis of ECCS parameters, re-analysis of plant transient analysis, or determination of analytic bases for changing T.S. settings are examples of activities which confirm or verify acceptability of a component for QA-1 application. Quality control and other inspection or audit type activities that serve as an independent review of a task are not safety related. Core reload and some design change activities should require a yes answer to this decision box question.

Procedures for calibration of non QA-1 instruments that do not affect QA-1 components are not safety related, however, the procedures utilizing these instruments may be safety related. (Decision Box 2 is intended to identify evaluation/analyses activities.)

- 3 DOES THE PROCEDURE AFFECT THE QA-1 BOUNDARY OR FUNCTION?

The procedure shall affect the QA-1 portion of the component to answer yes to this question. For example, IF the procedure is calibration of a QA-2 measuring device attached to a QA-1 boundary device with no propensity for affecting the boundary, THEN the answer to the decision box question is NO. "Affect" in this decision generally means physically affecting the boundary or function.

- 4 DOES THE PROCEDURE PROVIDE THE MANAGEMENT CONTROL OF THE SAFETY RELATED ACTIVITY OR VERIFICATION OF IMPLEMENTATION OF A SAFETY RELATED ACTIVITY?

IF another safety related procedure ensures proper implementation of the safety related portion of the activity covered by the procedure under consideration, THEN this procedure itself is not safety related.

IF the procedure is the only procedure, or provides the management control to implement the safety related activity, THEN the procedure itself is safety related. IF the procedure performs the final verification of the safety related activity prior to returning the system/component to service, THEN the procedure is safety related.

- 5 IS THE PROCEDURE SIGNIFICANTLY COMPLEX, RELATED TO A TECH. SPEC., OR REQUIRE PLANT COGNIZANCE?

There are non-safety related procedures for which it may be desirable to provide for PORC review or require the additional control of temporary changes. This is a discretionary decision generally made by the process owner responsible for the procedure.

WISCONSIN PUBLIC SERVICE CORPORATION KEWAUNEE NUCLEAR POWER PLANT JOB PERFORMANCE MEASURE	NO. O-LRQ-JPM-A.1-1	REV. Orig
	TITLE: Respond to a Degraded Appendix "R" Door	
	DATE	PAGE: 1

APPROVED BY:

Nuclear Training Supervisor-Operations

Assistant Manager Kewaunee Plant - Operations

PERFORMED BY:

Trainee

Evaluator

EVALUATION LOCATION:	PLANT/SIMULATOR/CONTROL ROOM	Simulator/Control Room
EVALUATION METHOD:	PERFORM/SIMULATE	Perform
AVE. COMPLETION TIME:	AVE. TIME FOR THIS JPM	15 Minutes
TIME CRITICAL TASK:	YES/NO	No
MAX. COMPLETION TIME:	N/A FOR NON-TIME CRITICAL TASKS	N/A
PERFORMANCE LEVEL:	SRO/RO/NAO	SRO
TASK NUMBER:	FROM OPS TRNG DATABASE	1190190302
TASK TYPE:	INITIAL/CONTINUING (FROM OPS TRNG DATABASE)	Continuing
PLANT SYSTEM:	NAME	Admin.
CRITICAL STEPS:	(C) = CRITICAL	3 and 4
	(S) = SEQUENCE CRITICAL	None
	(T) = TIME CRITICAL	None
SPECIAL TOOLS AND EQUIPMENT:	SPECIAL ITEMS REQUIRED TO COMPLETE JPM	None
REFERENCES:	REFERENCES USED FOR PERFORMANCE OF JPM	FPP 08-09, Rev. C

READ THE FOLLOWING TO THE OPERATOR:

THIS TASK IS NOT TIME CRITICAL

THE TASK CONDITIONS ARE:

You are the Shift Manager on a Sunday.

The plant is at 100% power.

Door 5, Safeguards Alley to Cardox Room, has been damaged when struck with a forklift tine leaving an 8 x 1.5 inch hole in Door 5.

Total Steam Exclusion and Zone SV openings are <10 square feet.

Door 5 is NOT considered a flooding barrier.

THE STEPS IN THIS JPM SHOULD BE: Performed

INITIATING CUE:

A Maintenance Worker has requested from you a Barrier Impairment Permit (FPP 08-09 Attachment 2) for Door 5.

DO YOU HAVE ANY QUESTIONS BEFORE WE BEGIN?

Answer any questions the Operator may have, THEN read the following to the Operator to initiate the JPM performance:

LET'S BEGIN

THIS TASK IS NOT TIME CRITICAL

THE TASK CONDITIONS ARE:

You are the Shift Manager on a Sunday.

The plant is at 100% power.

Door 5, Safeguards Alley to Cardox Room, has been damaged when struck with a forklift tine leaving an 8 x 1.5 inch hole in Door 5.

Total Steam Exclusion and Zone SV openings are <10 square feet.

Door 5 is NOT considered a flooding barrier.

INITIATING CUE:

A Maintenance Worker has requested from you a Barrier Impairment Permit (FPP 08-09 Attachment 2) for Door 5.

If required (only for JPM performance on the simulator), take the simulator out of freeze.

Use the JPM evaluation form to mark the operator's performance as the task is being done.

Provide any necessary cues for the JPM.

Take notes to support the resulting pass/fail grade.

For unsatisfactory grades, documentation must be noted in the comment section of the JPM evaluation form.

For any unsatisfactory grades, the JPM evaluation form will be filed in the individual's training file.

LOG START TIME:

STEP	PERFORMANCE ITEM	* STANDARD	SAT/ UNSAT	
			S	U
1.	Obtain a copy of FPP 08-09, Barrier Control, and Attachment 2 from Fire Plan Procedures.	* Obtain a copy of FPP 08-09		
2.	Fill in section I of Barrier Impairment Permit. (Cue: Work Request Number is ABC-1.) (Cue: Permit Number is FP-012.)	* Section I is filled in per provided information. * Fill in section I as follows: <ul style="list-style-type: none"> - Work Request Number – ABC-1 - Requested By – Maintenance Worker - Permit Number – FP-012 - Equipment Affected – Door - Equipment Number – Door 5 - Reason – Struck by forklift⁺ - Location – Safeguards Alley to Cardox Room ⁺ Other wording allowed. Note: Work Request Number and Permit number are online.		
(c)3.	Fill in Barrier type (Section II) of Barrier Impairment Permit.	* Fill in Barrier type (Section II) by circling as follows: <ul style="list-style-type: none"> - Fire – Yes <ul style="list-style-type: none"> • App R • App A • Insurance - Steam Exclusion - Yes - Special Vent. – No - Controlled area – No - Security – No - Flooding – No Information obtained from FPP 08-09 Attachment 1.		

STEP	PERFORMANCE ITEM	* STANDARD		
(c.)4.	Fill in Contingency Actions Required (Section III) of Barrier Impairment Permit.	* Fill in Contingency Actions Required (Section III) by circling as follows: <ul style="list-style-type: none"> - Hourly Fire Watch – Yes - Contact Security – No or N/A - Contact HP – No - SV Analysis – No - SE Analysis – No* *This is not required but maybe marked YES to start actions if candidate thinks LCO maybe exceeded.		
5.	Send Original to Door 5 and Route copies to FPPO and QA Vault	* Permit distributed.		

* Indicates required items for satisfactory completion of performance items.

LOG STOP TIME:

When the operator completes the performance portion of the JPM, then read the following:

THAT COMPLETES THIS PORTION OF THE JPM.

Ask any required follow-up questions and note the questions and answers in the JPM evaluation comments section.

When done with any required follow-up questions, then read the following:

THAT COMPLETES THIS JPM.

Make sure your documentation on the next page is complete.

	YES	NO	N/A
Were all of the critical steps performed correctly?			
<u>IF</u> the JPM was time critical, <u>THEN</u> was the JPM completed in the designated time?			
<u>IF</u> the JPM was NOT time critical, <u>THEN</u> was acceptable progress made in performing the task?			
Was the task standard met?			

IF any of the above questions was answered with a NO response, THEN this JPM must be evaluated as UNSATISFACTORY.

THE TASK STANDARD FOR THIS JPM IS:

Barrier Impairment Permit filled out.

Job Performance Measure was:

SATISFACTORY _____ UNSATISFACTORY _____

EVALUATOR SIGNATURE: _____ DATE: _____

COMMENTS:

ATTACHMENT 2

Barrier Impairment Permit

FPP 08-09
Rev. C
SEP 30 1997
Page 16 of 16

I. DESCRIPTION:

Work Request No.: _____ Requested by: _____ Permit No.: _____

Equipment Affected: _____ Pen. Seal _____ Door _____ HVAC _____ Other _____
(circle one)

Equipment Number: _____ Reason: _____

Location: _____

II. BARRIER TYPE:

A.	Fire:	Yes	No	If yes, circle as applicable:	App R	App A	Insurance
B.	Steam Exclusion:	Yes	No	If yes, an analysis may be required.			
C.	Special Ventilation:	Yes	No	If yes, an analysis is required if total opening will exceeds 200 ft ² .			
D.	Controlled Area:	Yes	No	If yes, radiation protection authorization is required.			
E.	Security:	Yes	No				
F.	Flooding:	Yes	No				

III. CONTINGENCY ACTIONS REQUIRED:

A.	Hourly Fire Watch Required:	Yes	No	N/A			
B.	Contact Security Prior to Impairing Barrier:	Yes	No	N/A			
C.	Contact HP Prior to Impairing Barrier:	Yes	No	N/A			
D.	SV Analysis Approval Required:	Yes	No	N/A			
E.	SE Analysis or E&TS Approval Required:	Yes	No	N/A			SE LCO LOG
	1) 12 hour LCO applicable:	Yes	No	N/A	Time:	Impaired _____	Restored _____
	2) 72 hour LCO applicable:	Yes	No	N/A	Time:	Impaired _____	Restored _____
F.	Other:	_____					

IV. AUTHORIZATION:

A. I have reviewed the above information and verified that the contingency actions outlined above have been established and/or met.

(FPPO) Date _____

B. The Shift Supervisor authorizes the impairment of the barrier as described above.

(Shift Supervisor) Date _____

VII. BARRIER TRACKING:

A.	Impaired by:	_____	Date _____	Time _____
B.	Restored by:	_____	Date _____	Time _____
C.	Reviewed by:	_____	Date _____	Time _____

(Notify the SS and return the Barrier Impairment Permit and a copy of GMP 208 Attachment 2 to the FPPO when the barrier is restored)

DISTRIBUTION: Orig - Work Site
Route to - FPPO
- KNPP QA Vault

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REVIEWED BY <i>Roy P. Huff</i>		APPROVED BY <i>C. G. Schrock</i>		
NUCLEAR SAFETY RELATED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	PORC REVIEW REQUIRED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	SRO APPROVAL OF TEMPORARY CHANGES REQUIRED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		

1.0 PURPOSE

This procedure describes the actions necessary to control the integrity of plant barriers and boundaries to ensure the required contingency actions are implemented.

2.0 APPLICABILITY

2.1 This procedure applies to all personnel working at Kewaunee.

2.2 The requirements of this procedure are applicable at all times.

3.0 DEFINITIONS

- 3.1 **Boundary** - a configuration that limits an area within the plant for specific purposes, such as fire protection, steam exclusion, special ventilation, flooding, security, and radiation protection.
- 3.2 **Barrier** - walls, floors and ceilings that provide boundaries within the plant.
- 3.3 **Barrier Components** - components installed to protect openings through a barrier, such as doors, dampers, penetration seals, floor plugs, plenums, etc.
- 3.4 **Barrier Impairment** - an action that compromises the ability of a barrier to perform its intended function. Examples include, but are not limited to, blocking open (or otherwise altering) doors, dampers and hatches, opening penetration seals and plenums, removing floor plugs, coring new penetrations, etc.
- 3.5 **Degraded Barrier** - a barrier component found in a degraded condition that compromises the ability of that barrier to perform its intended function. Examples include, but are not limited to; fire/security doors that do not close properly, penetration seals that are damaged.
- 3.6 **Fire Barrier** - walls, floors, and ceilings that are rated in hours of resistance to fire.
- 3.7 **Penetration** - an opening in a barrier to allow the passage of equipment that, if left unprotected, compromise the integrity of the barrier (e.g., pipes, conduits, cable trays, ductwork, etc...)
- 3.8 **Penetration Seal** - the sealing of a penetration with approved materials for providing a fire, steam, water and/or air seal, depending on the type of barrier.
- 3.9 **Steam Exclusion Zone** - an area where steam is prevented from entering in order to provide a suitable environment for essential plant equipment and personnel safety.
- 3.10 **Special Ventilation Zone** - an area which collects and filters any potential containment leakage that may have bypassed the Shield Building annulus.
- 3.11 **Controlled Area** - areas within the plant that are potentially contaminated.

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- 3.12 Controlled Area Boundary - is either:
 - a. A boundary between the radiologically clean areas and the controlled area of the plant, or
 - b. A boundary between specific areas within the controlled area, including High Radiation Areas, Radioactive Material Storage Areas, Airborne Radioactivity Area, Contaminated Area, etc.
- 3.13 Appendix A Barrier - a fire barrier that separates "fire zones" as described in the Fire Protection Program Analysis (FPPA).
- 3.14 Appendix R Barrier - a fire barrier that separates redundant safe shutdown equipment (in accordance with 10 CFR 50 Appendix R).
- 3.15 Insurance Barrier - a fire barrier that provides separation required by the nuclear insurance carrier.
- 3.16 Security Barrier - a barrier that is used to separate different levels of security.
- 3.17 Flooding Barrier - a barrier that prevents flood propagation from one room to another.
- 3.18 Administrative Limiting Conditions for Operation (ALCO) - restrictions on the operation of structures, systems, or components, imposed consistent with safe operation of the plant. These restrictions are generally associated with support equipment and functional capabilities specified in the USAR, Fire Plan, etc. and not the Technical Specifications.
- 3.19 Fire Protection Process Owner (FPPO) - is responsible for implementing the Barrier Control Program through day-to-day administration and coordination with various departments or work groups. Designated alternates include the Shift Supervisor (S.S.), a Fire Protection Work Group Member, or a Fire Brigade/Team Leader.

4.0 RESPONSIBILITIES

- 4.1 Fire Protection Process Owner (FPPO)
 - 4.1.1 Issue Barrier Impairment Permits during normal working hours.
 - 4.1.2 Assign penetration seal details, as necessary, in accordance with GMP 208.
 - 4.1.3 Initiate hourly fire watch patrols, as necessary.
 - 4.1.4 Maintain a log of all Barrier Impairment Permits that are issued and their status.
 - 4.1.5 Monitor the total opened area for zone SV boundaries to ensure it does not exceed 200 square feet.
 - 4.1.6 Initiate contingency actions when degraded barriers are reported that have not been previously authorized.
- 4.2 Shift Supervisor
 - 4.2.1 Authorize barrier impairments per section 5.0.
 - 4.2.2 Issue barrier permits when the FPPO is not available (i.e., on the backshift).

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4.3 Work Supervisor/Lead Person

- 4.3.1 Recognize when a boundary or barrier will be impaired as part of scheduled work.
- 4.3.2 Obtain written authorization (permit) prior to impairing a barrier.
- 4.3.3 Ensure required contingency actions are established and/or met prior to impairing the barrier.
- 4.3.4 Ensure that penetration seals are repaired in accordance with GMP 208.

4.4 Worker

- 4.4.1 Ensure authorization has been received prior to impairing a boundary or barrier.
- 4.4.2 Post the permit near the barrier component to be impaired.
- 4.4.3 Notify the Shift Supervisor of the precise start time the barrier component was impaired and the precise time it was restored if administrative LCO is applicable.
- 4.4.4 Work in accordance with the impairment permit.
- 4.4.5 Notify the Shift Supervisor and return the permit and a copy of GMP 208 Attachment 2 to the FPPO when the impairment has been restored.

4.5 E&TS

- 4.5.1 A competent person will assist the FPPO, as requested, to determine which impairments affect steam exclusion, special ventilation, and flooding barriers.
- 4.5.2 Provide guidance on Administrative Limiting Condition for Operation (LCO).
- 4.5.3 Provide (or assist in the performance of) analyses or alternate steam exclusion, special ventilation, and flooding zones for barrier impairments that will exceed the Administrative LCO.

5.0 REQUIREMENTS

5.1 Authorization Requirements

- 5.1.1 Prior to impairing a barrier within the plant, the Work Supervisor (or designee) shall obtain written authorization in accordance with Section 5.2 of this procedure during normal working hours (Monday through Friday, 7:00 am to 3:30 pm), and Section 5.3 on weekends and backshifts, except as noted below:

Exception No. 1: Written authorization is not required for the removal of the A and B RHR Pump Pit covers provided the Shift Supervisor has been notified. An hourly Fire Watch Patrol is required for whenever B RHR Pump Pit cover is removed.

Exception No. 2: Written authorization is not required for blocking open a door to run extension cords, welding cords, ventilation, air and water hose through providing the Shift Supervisor and the FPPO are notified prior to installing the equipment and the worker removes the equipment and closes the door when not in the area.

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- 5.1.2 Steam exclusion barrier impairments will be authorized by FPPO in accordance with either Administrative LCO's, alternate steam exclusion zones, or acceptable analysis.
- 5.1.3 Impairments to Zone SV barriers that cause the total opened area to exceed 200 square feet shall not be authorized without prior analysis.

5.2 Impairing Barriers During Normal Working Hours

- 5.2.1 The Work Supervisor (or designee) shall request a Barrier Impairment Permit (Attachment 2) from the FPPO.
- 5.2.2 The FPPO shall complete Sections I, II and III of the Barrier Impairment Permit. Door information is provided on Attachment 1.
 - a. An hourly fire watch patrol is required when impairing a fire barrier (door, damper, penetration seal, etc.) protecting safety related areas.
 - b. The Security Department is required to be contacted prior to exceeding an open area of 96 square inches (or if the smallest dimension will exceed 6 inches).
 - c. The Radiation Protection Department is required to be contacted if a controlled area boundary, or a barrier within the controlled area, is being impaired.
 - d. An acceptable analysis is required prior to impairing a zone SV barrier which causes the total opened area to exceed 200 ft².
 - e. An analysis is required prior to impairing a Steam Exclusion (SE) barrier unless Administrative LCO's apply or if the RCS is <350°F. If the RCS is <350°F, the SE system is not required to be operable and an analysis is not required for any SE barrier impairment. For Administrative LCO's contingencies, please see Operating Procedure (OP) A-ASV-14, Abnormal Zone Special Ventilation and Steam Exclusion System Operation.
- 5.2.3 If requested, a competent person from E&TS will review the planned SE or Zone SV impairment, provide the necessary information to authorize or reject the impairment, and return the permit to the FPPO.
- 5.2.4 If required, the FPPO shall initiate the hourly fire watch patrol.
- 5.2.5 The Shift Supervisor shall review the permit and authorize the impairment of the barrier.
- 5.2.6 The worker shall post the permit near the affected barrier, follow all contingency actions, record the time and date the impairment and restoration of the Barrier Impairment Permit, and return the permit to FPPO when the barrier is restored.
- 5.2.7 The FPPO shall terminate the fire watch and review the permit for accuracy and completeness.

5.3 Impairing Barriers on Backshifts and Weekends

- 5.3.1 The Work Supervisor (or designee) shall request a Barrier Impairment Permit from the Shift Supervisor (or designee).

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- 5.3.2 The Shift Supervisor (or designee) shall complete Sections I, II and III of the permit in accordance with step 5.2.2 of this procedure.
- 5.3.3 If required, the Shift Supervisor shall request that CAS initiate an hourly fire watch patrol on at least one side of the affected barrier.
- 5.3.4 The Shift Supervisor shall review and authorize (or reject) the impairment of the barrier, sign both sections IV.A and IV.B of the permit, and forward a photo copy of the permit to the FPPO.
- 5.3.5 The worker shall post the permit near the affected barrier, follow all contingency actions, record time and date of the impairment and restoration of the Barrier Impairment Permit.
- 5.3.6 The FPPO will assign a permit number and record this number on the original permit posted near the affected barrier.
- 5.3.7 The worker shall return the permit to FPPO when the barrier is restored.
- 5.3.8 The FPPO shall terminate the fire watch and review the permit for accuracy and completeness.

5.4 Degraded Barrier Component Found During Normal Work Hours

- 5.4.1 The individual who found a barrier component in a degraded condition shall notify the FPPO and request a Barrier Impairment Permit (Attachment 2).
- 5.4.2 The FPPO shall complete the appropriate sections, authorize, follow all contingency actions, and post the Barrier Impairment Permit.

NOTE: Since the barrier component is already impaired, it would not require S.S. authorization (section IV Authorization) for impairment and also would not require "Impaired By" (section V Barrier Tracking part A) to be signed. Door information is provided on Attachment 1.

- a. An hourly fire watch patrol is required to be established within 1 hour of identification of a degraded barrier component (door, damper, penetration seal, etc.) when it is protecting safety related areas. If required, the FPPO shall initiate the hourly fire watch patrol.
- b. The Security Department is required to be contacted if the degraded barrier component is a security barrier and if it has an open area exceeding 96 square inches (or if the smallest dimension exceeds 6 inches).
- c. The Radiation Protection Department is required to be contacted if a controlled area boundary or a barrier component within the controlled area is found degraded.
- d. Initiate a Kewaunee Assessment Process (KAP) and a Maintenance Work Request (MWR) for the degraded barrier component.

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5.4.3 If requested by the FPPO, a competent person from E&TS will review the degraded SE or Zone SV barrier component, provide necessary information, and return it to the FPPO.

- a. An analysis is required if a Zone SV barrier component causes the total open area to exceed 200 sq. ft.
- b. An analysis is required for a degraded Steam Exclusion (SE) barrier component unless SE Administrative LCO's apply or if the RCS is < 350°F. If the RCS is < 350°F, the SE system is not required to be operable and an analysis is not required for any SE barrier impairment. For SE Administrative LCO's contingencies, please see Operating Procedure (OP) A-ASV-14, Abnormal Zone Special Ventilation and Steam Exclusion System Operation.

5.4.4 The worker who restores the degraded barrier component shall sign, record the date and time of the restoration (section V Barrier Tracking, part B) of the Barrier Impairment Permit, and return the permit and a copy of GMP 208 Attachment 2 to the FPPO.

5.4.5 The FPPO shall review the permit for accuracy and completeness and then terminate the hourly fire watch patrol.

5.5 Degraded Barrier Component Found on Backshift and Weekends

5.5.1 The individual who found a barrier component in a degraded condition shall notify the Shift Supervisor (or designee) and request a Barrier Impairment Permit. Information the Shift Supervisor (or designee) will need is the barrier component type (door, damper, penetration seal, etc.), the barrier component number, and its location.

5.5.2 The Shift Supervisor (or designee) shall complete appropriate sections, authorize, and follow all contingency actions.

NOTE: Since the barrier component is already impaired, it would not require S.S. authorization (section IV Authorization) for impairment and also would not require "Impaired By" (section V Barrier Tracking part A) to be signed. Door information is provided on Attachment 1.

- a. Send a copy of the Barrier Impairment Permit to the FPPO to record the Barrier Impairment Permit and have the original posted near the degraded barrier component.
- b. An hourly fire watch patrol is required to be established within 1 hour of identification of a degraded barrier component (door, damper, penetration seal, etc.) when it is protecting safety related areas. If required, the FPPO shall initiate the hourly fire watch patrol.
- c. The Security Department is required to be contacted if the degraded barrier component has an open area exceeding 96 square inches (or if the smallest dimension exceeds 6 inches).
- d. The Radiation Protection Department is required to be contacted if a controlled area boundary or a barrier component within the controlled area is found degraded.

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- e. Initiate a Kewaunee Assessment Process (KAP) and a Maintenance Work Request (MWR) for the degraded barrier component.
- 5.5.3 If requested by the S.S., a competent person from E&TS will review the degraded SE or Zone SV barrier component, provide the necessary information, and return it to the FPPO.
 - a. An analysis is required if a Zone SV barrier component causes the total open area to exceed 200 sq. ft.
 - b. An analysis is required for a degraded Steam Exclusion (SE) barrier component unless SE Administrative LCO's apply or if the RCS is $< 350^{\circ}\text{F}$. If the RCS is $< 350^{\circ}\text{F}$, the SE system is not required to be operable and an analysis is not required for any SE barrier impairment. For SE Administrative LCO's contingencies, please see Operating Procedure (OP) A-ASV-14, Abnormal Zone Special Ventilation and Steam Exclusion System Operation.
- 5.5.4 The FPPO will assign a permit number and record this number on the original permit posted near the affected barrier component.
- 5.5.5 The worker who restores the degraded barrier component shall sign, record the date and time of the restoration (section V Barrier Tracking, part B) of the Barrier Impairment Permit, and return the permit and a copy of GMP 208 Attachment 2 to the FPPO.
- 5.5.6 The FPPO shall review the permit for accuracy and completeness and then terminate the hourly fire watch patrol.

6.0 REFERENCES

- 6.1 10CFR50 Appendix R
- 6.2 APCS BTP 9.5-1, Appendix A
- 6.3 February 14, 1978 NRC letter on Fire Protection Administrative Controls
- 6.4 GMP 208
- 6.5 KNPP Fire Plan
- 6.6 PORC Meeting Minutes for February 21, 1995
- 6.7 USAR Section 10.4.2, Steam Exclusion
- 6.8 Appendix "R" Drawings A-392 to A-431
- 6.9 January 1997, Updated Flooding Probable Risk Assessment (PRA)
- 6.10 Operating Procedure A-ASV-14, Abnormal Zone Special Ventilation and Steam Exclusion System Operation
- 6.11 General Arrangement of Special Ventilation (SV) Boundaries Drawings A-204, A-206, A-208, A-209, and A-212.

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7.0 IMPLEMENTING PROCEDURES

None

8.0 RECORDS

- 8.1 The following QA records and non-QA records are identified in this directive/procedure and are listed on the KNPP Records Retention Schedule. These records shall be maintained according to the KNPP Records Management Program.

8.1.1 QA Records

- Barrier Impairment Permit (Attachment 2)

8.1.2 Non-QA Records

None

ATTACHMENT 1

DOOR CHECKLIST

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Door #	Elevation	Description/Location	Fire (App R)	Fire (App A)	Fire (Ins.)	SE	SV	RCA Boundary	Security
001	586'	1B DIESEL ROOM TO SCREENHOUSE TUNNEL	YES	YES	YES	NO	NO	NO	NO
002	586'	1A DIESEL ROOM TO SCREENHOUSE TUNNEL	NO	YES	YES	NO	NO	NO	NO
003	586'	1B DIESEL ROOM TO CARDOX ROOM	NO	YES	YES	YES	NO	NO	NO
004	586'	ENTRANCE TO SAFEGUARDS ALLEY	NO	YES	YES	YES	NO	NO	YES
005	586'	SAFEGUARDS ALLEY TO CARDOX ROOM	YES	YES	YES	YES	NO	NO	NO
006	586'	TURBINE BUILDING TO SAFEGUARDS ALLEY	NO	YES	YES	YES	NO	NO	YES
007	586'	ENTRANCE TO TURBINE OIL STORAGE ROOM	NO	YES	YES	NO	NO	NO	NO
008	586'	SAFEGUARDS ALLEY TO AUX BUILDING	NO	YES	YES	NO	YES	YES	NO
009	586'	BUS 1 & 2 HALLWAY TO AUX BUILDING	NO	YES	YES	YES	YES	NO	YES
011	586'	POTATO BIN TO CONTROLLED AREA	YES	YES	YES	NO	NO	YES	YES
012	586'	TO DRUMMING AREA FROM AUX BUILDING	NO	YES	YES	YES	YES	NO	NO
013	586'	RHR PIT TO STAIRWAY J	NO	YES	YES	YES	YES	NO	NO
014	586'	ENTRANCE TO BUS 1 & 2	NO	YES	YES	NO	NO	NO	NO
015	586'	TURBINE BASEMENT TO BUS 1 & 2 HALLWAY	NO	NO	NO	NO	NO	YES	NO
016	586'	CONTROLLED AREA DOOR SGBT ROOM	NO	YES	YES	NO	NO	YES	NO
017	586'	SGBT TO BUS 1 & 2 ROOM	NO	YES	YES	NO	NO	NO	NO
039	586'	TURBINE TO ADMIN BUILDING	NO	YES	YES	NO	NO	NO	YES
040	606'	TURBINE BUILDING NEAR TRANSFORMER	NO	YES	YES	NO	NO	NO	YES
041	606'	IN PLANT SECURITY OFFICE TO TURBINE	NO	YES	YES	NO	NO	NO	YES
043	606'	TURBINE TO MAINTENANCE SHOP	NO	NO	YES	NO	NO	NO	NO
044	606'	RPO TO TURBINE BUILDING	NO	YES	YES	NO	NO	NO	NO
045	606'	BETWEEN BATTERY ROOMS	YES	YES	YES	NO	NO	NO	NO
046	606'	ENTRANCE TO TSC FROM TURBINE	YES	YES	YES	NO	NO	NO	NO

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Door #	Elevation	Description/Location	Fire (App R)	Fire (App A)	Fire (Ins.)	SE	SV	RCA Boundary	Security
047	606'	EXIT DOOR FROM BATTERY ROOM 1A	YES	YES	YES	YES	NO	NO	YES
048	606'	ENTRANCE TO BATTERY ROOM 1B	NO	YES	YES	YES	NO	NO	YES
049	606'	DOOR TO RELAY ROOM	NO	YES	YES	YES	NO	NO	YES
051	606'	DOOR TO WORKING MATERIAL STORAGE RM.	NO	YES	YES	NO	NO	NO	NO
052	606'	STAIRWELL J TO HEAT EXCHANGER	NO	YES	YES	YES	YES	NO	NO
055	606'	DOOR TO AUX STAIRWELL FROM RPO	NO	YES	YES	YES	YES	YES	YES
060	606'	DOOR FROM RPO LOCKERS TO RELAY ROOM	NO	YES	YES	YES	NO	NO	NO
063	606'	MAIN ENTRANCE TO AUX BUILDING	YES	YES	YES	YES	YES	NO	YES
068	606'	MACHINE SHOP DOOR TO RPO HALL	NO	YES	YES	NO	NO	NO	NO
069	606'	DOUBLE DOOR TO TOOL ROOM	NO	YES	YES	NO	NO	NO	NO
070	606'	GAS BOTTLE ALLEY TO MACHINE SHOP	NO	YES	YES	NO	NO	NO	YES
071	606'	DOOR TO HEATING BOILER ROOM	YES	YES	YES	NO	NO	NO	NO
072	606'	PLANT HELPER OFFICE	NO	YES	YES	NO	NO	NO	NO
075	606'	ELECTRIC SHOP TO ANNEX HALL	NO	YES	YES	NO	NO	NO	YES
076	606'	HEATING BOILER ROOM TO ANNEX HALL	YES	YES	YES	NO	NO	NO	YES
077	606'	DOOR NEAR SGBT ROOM	NO	YES	YES	NO	NO	NO	NO
078	606'	GAS BOTTLE TO HEATING BOILER ROOM	YES	YES	YES	NO	NO	NO	YES
080	606'	AUX STAIRWELL J TO HOLDUP TANKS	NO	YES	YES	YES	YES	NO	NO
082	616'	CABLE AREA TO AUX STAIRWELL F	NO	YES	YES	YES	YES	YES	NO
083	606'	LOADING DOCK TO A FEEDWATER AREA	NO	NO	NO	NO	NO	NO	NO
085	606'	LOADING DOCK DOOR ROLL UP DOOR	NO	NO	NO	NO	NO	YES	YES
087	606'	LOADING DOCK DOOR ROLL UP DOOR	NO	NO	NO	NO	NO	YES	YES
090	606'	TURBINE BUILDING TO ADMIN	NO	YES	YES	NO	NO	NO	YES

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091	626'	AUX STAIRWAY L TO EMERGENCY AIRLOCK	NO	YES	YES	NO	NO	NO	YES
099	586'	AUX BUILDING STAIRWELL E	NO	YES	YES	NO	NO	NO	NO
105	626'	ADMIN TO TURBINE BUILDING	NO	YES	YES	NO	NO	NO	YES
109	626'	ADMIN TO TURBINE BUILDING	NO	YES	YES	NO	NO	NO	YES
117	626'	ENTRANCE TO SHIFT SUPERVISOR OFFICE	NO	YES	YES	YES	NO	NO	YES
118	626'	TURBINE BUILDING TO AUX BUILDING	NO	YES	YES	NO	NO	NO	NO
119	626'	I & C SHOP TO CABLE SPREADING AREA	NO	NO	NO	NO	NO	NO	YES
120	626'	TURBINE BUILDING TO TSC STAIRS	YES	YES	YES	NO	NO	NO	NO
121	633'	BORIC ACID TANK ROOM	NO	YES	YES	YES	YES	NO	NO
122	640'	DOOR TO AUX BUILDING ROOF	NO	NO	NO	NO	NO	YES	YES
123	649'	ENTRANCE TO PERSONNEL AIRLOCK	NO	YES	YES	NO	NO	NO	YES
124	626'	ENTRANCE TO I & C SHOP	NO	YES	YES	NO	NO	NO	NO
125	626'	DEMIN AREA TO AUX STAIRS	NO	NO	YES	NO	NO	NO	NO
126	626'	ENTRANCE TO EMERGENCY AIRLOCK	NO	NO	NO	NO	NO	YES	YES
128	626'	I & C SHOP	NO	YES	YES	NO	NO	NO	NO
129	626'	I & C SHOP	NO	YES	YES	NO	NO	NO	NO
130	626'	ENTRANCE TO CONTROL ROOM	NO	YES	YES	YES	NO	NO	YES
134	626'	DOOR TO STAIRWELL H	NO	NO	NO	NO	YES	NO	NO
136	586'	SAFEGUARDS ALLEY TO 1A DIESEL ROOM	NO	YES	YES	NO	NO	NO	YES
140	618'	DOOR TO SFP HEAT EXCHANGER	NO	YES	YES	YES	YES	NO	NO
141	642'	ENTRANCE TO CONTROL ROOM AC/EQ ROOM	NO	YES	YES	YES	NO	NO	YES
142	642'	RECORDS STORAGE ROOM	NO	YES	NO	NO	NO	NO	NO
143	642'	STAIRWELL NEAR HOT I & C SHOP	NO	NO	NO	NO	NO	YES	YES

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144	642'	SV DOOR NEAR HOT CHEM LAB	NO	NO	NO	NO	YES	NO	NO
146	642'	DOOR TO HOT I & C SHOP	NO	YES	YES	YES	YES	NO	NO
151	642'	HOT I & C HALL TO BASKETBALL COURT	YES	YES	YES	NO	NO	NO	NO
152	642'	ELEVATOR DOOR TO CONTROL ROOM HVAC	YES	YES	YES	NO	YES	YES	NO
153	648'	WAREHOUSE ROOF	NO	NO	NO	NO	NO	NO	YES
155	642'	FILTER FLOOR TO AUX BUILDING AC UNITS	NO	YES	NO	YES	YES	YES	YES
156	657'	AUX FAN FLOOR TO PURGE AND VENT	NO	YES	NO	YES	YES	YES	YES
157	657'	ELEVATOR DOOR TO FAN FLOOR	YES	YES	NO	NO	NO	NO	NO
158	657'	TURBINE BUILDING SUPPLY FANS	NO	NO	NO	NO	NO	NO	NO
159	657'	AUX BUILDING ROOF	NO	NO	NO	NO	NO	NO	YES
161	626'	CONTROL ROD DRIVE ROOM	NO	YES	YES	YES	NO	NO	NO
162	626'	SV DOOR TO STAIRWELL E	NO	YES	YES	YES	YES	YES	YES
163	657'	AUX FAN FLOOR TO STAIRWELL F	NO	YES	YES	YES	YES	YES	YES
164	586'	EXIT DOOR FROM SCREENHOUSE SOUTH	NO	YES	YES	NO	NO	NO	YES
165	586'	EXIT DOOR FROM SCREENHOUSE NORTH	NO	YES	YES	NO	NO	NO	YES
166	586'	EXIT DOOR FROM SCREENHOUSE SOUTH	NO	NO	YES	NO	NO	NO	YES
174	606'	AUX LOADING DOCK SOUTH	NO	YES	YES	NO	NO	YES	YES
176	642'	ENTRANCE DOOR TO HOT CHEM LAB	NO	NO	YES	NO	NO	NO	NO
178	586'	1B DIESEL DAY TANK ROOM	NO	YES	YES	NO	NO	NO	NO
179	586'	1A DIESEL DAY TANK ROOM	NO	YES	YES	NO	NO	NO	NO
180	626'	ROD DRIVE ROOM TO MAIN STEAM DUMPS	NO	YES	YES	YES	NO	NO	YES
182	586'	SCREENHOUSE FISH BASKET	NO	NO	NO	NO	NO	NO	YES
187	626'	SV DOOR TO AUX ELEVATOR	NO	NO	NO	YES	YES	NO	NO

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Door #	Elevation	Description/Location	Fire (App R)	Fire (App A)	Fire (Ins.)	SE	SV	RCA Boundary	Security
196	586'	SV DOOR NEAR COMPRESSED BOTTLE STORAGE	NO	NO	NO	NO	YES	NO	NO
199	642'	SV DOOR NEAR HOT CHEM LAB	NO	YES	YES	YES	NO	NO	NO
203	649'	FILTER FLOOR TO STAIRWELL E	NO	NO	YES	NO	NO	NO	NO
214	606'	GAS BOTTLE ALLEY TO WAREHOUSE	NO	YES	YES	NO	NO	NO	NO
219	606'	STAIRWELL TO ANNEX HALL	NO	NO	YES	NO	NO	NO	NO
222	616'	WAREHOUSE STAIRWELL	NO	NO	YES	NO	NO	NO	NO
224	626'	WAREHOUSE STAIRWELL NE	NO	NO	YES	NO	NO	NO	NO
225	626'	WAREHOUSE STAIRWELL MIDDLE	NO	NO	YES	NO	NO	NO	NO
243	586'	TURB DRIVEN AFWP TO MDAFWP	NO	NO	NO	YES	NO	NO	NO
244	586'	SGA TO TURB DRIVEN AFWP ROOM	NO	NO	YES	YES	NO	NO	NO
259	569'	LOWER LEVEL SCREENHOUSE	YES	YES	YES	NO	NO	NO	NO
260	586'	DOUBLE DR BETWEEN SCREENHOUSE N & S	YES	YES	YES	NO	NO	NO	NO
261	586'	1A AFWP TO SAFE GUARDS ALLEY	YES	YES	YES	NO	NO	NO	NO
262	586'	1A AFWP TO SAFE GUARDS ALLEY	YES	YES	YES	NO	NO	NO	NO
263	586'	APP R DOOR ACROSS FROM DOOR # 4	YES	YES	YES	NO	NO	NO	NO
264	586'	APP R WALL NEAR LAUNDRY TANK	YES	YES	YES	NO	NO	NO	NO
265	586'	APP R WALL NEAR DOOR # 8	YES	YES	YES	NO	NO	NO	NO
266	606'	APP R WALL COMPONENT COOLING PUMPS	YES	YES	YES	NO	NO	NO	NO
267	606'	APP R WALL NEAR BORIC ACID PUMPS	YES	YES	YES	NO	NO	NO	NO
268	586'	APP R WALL TO FAN COIL UNIT 1A	YES	YES	YES	NO	NO	NO	NO
269	586'	APP R WALL NEAR SI PUMPS	YES	YES	YES	NO	NO	NO	NO
270	569'	LOWER LEVEL SCREENHOUSE	YES	YES	YES	NO	NO	NO	NO
279	586'	ROLL UP DOOR SCREENHOUSE	YES	YES	YES	NO	NO	NO	NO

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Door #	Elevation	Description/Location	Fire (App R)	Fire (App A)	Fire (Ins.)	SE	SV	RCA Boundary	Security
281	586'	ROLL UP DOOR SCREENHOUSE	YES	YES	YES	NO	NO	NO	NO
401	586'	CARDOX ROOM TO TURBINE BUILDING	NO	YES	YES	NO	NO	NO	YES
410	586'	ENTRANCE TO LOWER LEVEL TSC	NO	NO	YES	NO	NO	NO	YES
411	586'	1A AFWP TO STAIRWELL	YES	YES	YES	YES	NO	NO	YES
419	586'	EMERGENCY EXIT LOWER LEVEL TSC	NO	NO	YES	NO	NO	NO	YES
427	606'	OUTSIDE DOOR FROM TSC	NO	NO	YES	NO	NO	NO	YES
431	606'	STAIRWELL TO LOWER LEVEL TSC	NO	NO	YES	NO	NO	NO	NO
432	606'	DOOR TO RECORD STORAGE ROOM	NO	NO	YES	NO	NO	NO	NO
433	606'	DOOR TO TSC HVAC AREA	NO	NO	YES	NO	NO	NO	NO
436	606'	TSC HVAC TO ELECTRICAL EQUIPMENT RM.	YES	YES	YES	NO	NO	NO	YES
437	606'	TSC HVAC ROOM TO OUTSIDE	NO	YES	YES	NO	NO	NO	YES
438	606'	TSC DIESEL TO HVAC ROOM	NO	NO	YES	NO	NO	NO	YES
439	606'	TSC DIESEL TO ELECTRICAL EQUIPMENT RM.	YES	YES	YES	NO	NO	NO	NO
440	606'	TSC BATTERY ROOM	NO	NO	YES	NO	NO	NO	NO
442	586'	AUX BASEMENT TO RAF/TSC	NO	YES	YES	YES	YES	NO	NO
446	606'	TSC BATTERY ROOM	NO	NO	YES	NO	NO	NO	NO
447	626'	TSC STAIRWELL	NO	NO	YES	NO	NO	NO	NO
448	626'	TSC ROOF DOOR	NO	NO	NO	NO	NO	NO	YES
449	606'	TSC EMERGENCY STAIRWELL TO OUTSIDE	NO	YES	YES	NO	NO	NO	YES
501	606'	WAREHOUSE SE STAIRWELL / OUTSIDE	NO	NO	YES	NO	NO	NO	NO
502	606'	WAREHOUSE LOAD DOCK / OUTSIDE	NO	NO	YES	NO	NO	NO	NO
506	606'	CHEM STORAGE ROOM WAREHOUSE	NO	NO	YES	NO	NO	NO	NO
507	606'	FLAMMABLE STORAGE DOUBLE DOOR	NO	NO	YES	NO	NO	NO	NO

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508	606'	FLAMMABLE STORAGE SINGLE DOOR	NO	NO	YES	NO	NO	NO	NO
509	606'	WAREHOUSE WEST SINGLE DOOR	NO	NO	YES	NO	NO	NO	NO
511	606'	LOWER QC VAULT DOOR	NO	NO	YES	NO	NO	NO	NO
512	606'	WAREHOUSE WEST STAIRWELL	NO	NO	YES	NO	NO	NO	NO
513	606'	WAREHOUSE WEST STAIRWELL TO OUTSIDE	NO	NO	YES	NO	NO	NO	NO
514	606'	OFFICE ANNEX WEST STAIRWELL	NO	NO	YES	NO	NO	NO	NO
532	606'	OFFICE ANNEX HALL DOUBLE DOOR	NO	NO	YES	NO	NO	NO	NO
536	606'	WAREHOUSE NE STAIRWELL	NO	NO	YES	NO	NO	NO	NO
551	616'	ANNEX STAIRWELL	NO	NO	YES	NO	NO	NO	NO
553	616'	ANNEX STAIRWELL	NO	NO	YES	NO	NO	NO	NO
554	616'	ANNEX STAIRWELL	NO	NO	YES	NO	NO	NO	NO
581	626'	WAREHOUSE WEST STAIRWELL	NO	NO	YES	NO	NO	NO	NO
582	626'	WAREHOUSE WEST STAIRWELL	NO	NO	YES	NO	NO	NO	NO
584	626'	WAREHOUSE SINGLE DOOR MIDDLE	NO	NO	YES	NO	NO	NO	NO
585	626'	WAREHOUSE ROLL UP DOOR MIDDLE	NO	NO	YES	NO	NO	NO	NO
586	626'	WAREHOUSE ROLL UP DOOR EAST	NO	NO	YES	NO	NO	NO	NO
587	626'	WAREHOUSE SINGLE DOOR EAST	NO	NO	YES	NO	NO	NO	NO
589	657'	WAREHOUSE PENTHOUSE	NO	NO	YES	NO	NO	NO	NO

ATTACHMENT 2
Barrier Impairment Permit

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I. DESCRIPTION:

Work Request No.: _____ Requested by: _____ Permit No.: _____
Equipment Affected: _____ Pen. Seal _____ Door _____ HVAC _____ Other _____
(circle one)
Equipment Number: _____ Reason: _____
Location: _____

II. BARRIER TYPE:

A.	Fire:	Yes	No	If yes, circle as applicable:	App R	App A	Insurance
B.	Steam Exclusion:	Yes	No	If yes, an analysis may be required.			
C.	Special Ventilation:	Yes	No	If yes, an analysis is required if total opening will exceeds 200 ft ² .			
D.	Controlled Area:	Yes	No	If yes, radiation protection authorization is required.			
E.	Security:	Yes	No				
F.	Flooding:	Yes	No				

III. CONTINGENCY ACTIONS REQUIRED:

A.	Hourly Fire Watch Required:	Yes	No	N/A			
B.	Contact Security Prior to Impairing Barrier:	Yes	No	N/A			
C.	Contact HP Prior to Impairing Barrier:	Yes	No	N/A			
D.	SV Analysis Approval Required:	Yes	No	N/A			
E.	SE Analysis or E&TS Approval Required:	Yes	No	N/A	SE LCO LOG		
	1) 12 hour LCO applicable:	Yes	No	N/A	Time:	Impaired _____	Restored _____
	2) 72 hour LCO applicable:	Yes	No	N/A	Time:	Impaired _____	Restored _____
F.	Other:	_____					

IV. AUTHORIZATION:

A. I have reviewed the above information and verified that the contingency actions outlined above have been established and/or met.

(FPPO) Date _____

B. The Shift Supervisor authorizes the impairment of the barrier as described above.

(Shift Supervisor) Date _____

VII. BARRIER TRACKING:

A.	Impaired by:	_____	Date _____	Time _____
B.	Restored by:	_____	Date _____	Time _____
C.	Reviewed by:	_____	Date _____	Time _____

(Notify the SS and return the Barrier Impairment Permit and a copy of GMP 208 Attachment 2 to the FPPO when the barrier is restored)

DISTRIBUTION: Orig - Work Site
Route to - FPPO
- KNPP QA Vault

WISCONSIN PUBLIC SERVICE CORPORATION KEWAUNEE NUCLEAR POWER PLANT JOB PERFORMANCE MEASURE	NO. O-LRQ-JPM-A.3	REV. Orig
	TITLE: Emergency RWP Approval	
	DATE	PAGE: 1

APPROVED BY:

Nuclear Training Supervisor-Operations

Assistant Manager Kewaunee Plant - Operations

PERFORMED BY:

Trainee

Evaluator

EVALUATION LOCATION:	PLANT/SIMULATOR/CONTROL ROOM	Simulator/Control Room
EVALUATION METHOD:	PERFORM/SIMULATE	Perform
AVE. COMPLETION TIME:	AVE. TIME FOR THIS JPM	10 Minutes
TIME CRITICAL TASK:	YES/NO	No
MAX. COMPLETION TIME:	N/A FOR NON-TIME CRITICAL TASKS	N/A
PERFORMANCE LEVEL:	SRO/RO/NAO	SRO
TASK NUMBER:	FROM OPS TRNG DATABASE	1190040502
TASK TYPE:	INITIAL/CONTINUING (FROM OPS TRNG DATABASE)	Initial
PLANT SYSTEM:	NAME	Admin
CRITICAL STEPS:	(C) = CRITICAL	3,4
	(S) = SEQUENCE CRITICAL	None
	(T) = TIME CRITICAL	None
SPECIAL TOOLS AND EQUIPMENT:	SPECIAL ITEMS REQUIRED TO COMPLETE JPM	EPIP FORM AD 11.1 HPF-120
REFERENCES:	REFERENCES USED FOR PERFORMANCE OF JPM	EP-AD-11

READ THE FOLLOWING TO THE OPERATOR:

THIS TASK IS NOT TIME CRITICAL

THE TASK CONDITIONS ARE:

- You are the Emergency Director.
- The plant has experienced a large break LOCA.
- Containment Recirculation Sump per ES-1.3, "Transfer to Containment Sump Recirculation", has been established on the RHR Train A.
- RHR Pump B and SI Pump B are still lined up to the RWST.
- Prior to the event RHR Pump B Pit Covers were removed for maintenance.
- The suction pressure gauge for RHR Pump B has been reported to have blown off and there is a significant leak in RHR Pump B pit.
- The gauge can be isolated by closing valve RHR 11277.
- The pump may be damaged by the water filling up the RHR pump pit.
- The task should take about 5 to 6 minutes to do. The radiation level in the general area of RHR Pump B pit is 200,000 mr/hr (200 R/hr).

THE STEPS IN THIS JPM SHOULD BE: Performed

INITIATING CUE:

A request is being made to allow the Auxiliary Operator to enter the RHR Pump pit and isolate the valve to prevent damage to the pump. Evaluate the Emergency Radiation Work Permit and approve or deny approval of the permit.

DO YOU HAVE ANY QUESTIONS BEFORE WE BEGIN?

Answer any questions the Operator may have, THEN read the following to the Operator to initiate the JPM performance:

LET'S BEGIN

THIS TASK IS NOT TIME CRITICAL

THE TASK CONDITIONS ARE:

- You are the Emergency Director.
- The plant has experienced a large break LOCA.
- Containment Recirculation Sump per ES-1.3, "Transfer to Containment Sump Recirculation", has been established on the RHR Train A.
- RHR Pump B and SI Pump B are still lined up to the RWST.
- Prior to the event RHR Pump B Pit Covers were removed for maintenance.
- The suction pressure gauge for RHR Pump B has been reported to have blown off and there is a significant leak in RHR Pump B pit.
- The gauge can be isolated by closing valve RHR 11277.
- The pump may be damaged by the water filling up the RHR pump pit.
- The task should take about 5 to 6 minutes to do. The radiation level in the general area of RHR Pump B pit is 200,000 mr/hr (200 R/hr).

INITIATING CUE:

A request is being made to allow the Auxiliary Operator to enter the RHR Pump pit and isolate the valve to prevent damage to the pump. Evaluate the Emergency Radiation Work Permit and approve or deny approval of the permit.

If required (only for JPM performance on the simulator), take the simulator out of freeze.

Use the JPM evaluation form to mark the operator's performance as the task is being done.

Provide any necessary cues for the JPM.

Take notes to support the resulting pass/fail grade.

For unsatisfactory grades, documentation must be noted in the comment section of the JPM evaluation form.

For any unsatisfactory grades, the JPM evaluation form will be filed in the individual's training file.

LOG START TIME:

STEP	PERFORMANCE ITEM	* STANDARD	SAT/ UNSAT	
			S	U
1.	Refer to EP-AD-11, Emergency Radiation Controls.	* Refer to EP-AD-11		
2.	Refer to Form AD-11.1 to determine the expected dose.	* Refer to Form AD-11.1		
(c) 3.	Determine that the limit for protecting equipment would be exceeded.	* EPA-400 Table 2-2 has the limit for protecting equipment which is 10 REM TEDE.		
(c) 4.	Deny the authorization.	* Form AD-11.1 says that the individual is expected to receive 15-20 REM.		

* Indicates required items for satisfactory completion of performance items.

LOG STOP TIME:

When the operator completes the performance portion of the JPM, then read the following:

THAT COMPLETES THIS PORTION OF THE JPM.

Ask any required follow-up questions and note the questions and answers in the JPM evaluation comments section.

When done with any required follow-up questions, then read the following:

THAT COMPLETES THIS JPM.

Make sure your documentation on the next page is complete.

YES NO N/A

Were all of the critical steps performed correctly?			
<u>IF</u> the JPM was time critical, <u>THEN</u> was the JPM completed in the designated time?			
<u>IF</u> the JPM was NOT time critical, <u>THEN</u> was acceptable progress made in performing the task?			
Was the task standard met?			

IF any of the above questions was answered with a NO response, THEN this JPM must be evaluated as UNSATISFACTORY.

THE TASK STANDARD FOR THIS JPM IS:

Job Performance Measure was:

SATISFACTORY _____ UNSATISFACTORY _____

EVALUATOR SIGNATURE: _____ DATE: _____

COMMENTS:

EMERGENCY RADIATION WORK PERMIT

EPIP FORM AD 11.1

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EPIP FORM AD 11.1

RWP NO. 001 - XXX DATE PREPARED Actual Date
 ALARA NO. N/A DCR NO. N/A EFFECTIVE Actual Date TO + 1
 SYSTEM NO. N/A MWR NO. N/A REGULAR ☒
 EXTENDED ☐ F-
 ESTIMATED DOSE 15-20 REM

JOB DESCRIPTION AND LOCATION RHR Pump B Pit ESTIMATED MAN-HOURS 0.1
The Suction Pressure gauge has been blown off. The leak can be isolated by closing RHR 11277. This will take 5-6 minutes. If it is not done the RHR Pump may be severely damaged by water in the Room

ASSIGNED WORKERS

NAME	TLD	INIT	NAME	TLD	INIT	NAME	TLD	INIT
<u>Aux. Operator</u>	<u>123</u>	<u>AO</u>						

CONTACT RADIATION N/A mR/hr INSTRUMENT USED Teletector
 GEN. AREA RADIATION 200,000 mR/hr SERIAL NO. 01-XXX
 CONTAMINATION LEVELS NA DPM/100cm² HP COVERAGE REQUIRED: YES ☒

INDIVIDUAL REQUIREMENTS

DOSIMETRY	CLOTHING	CLOTHING	RESPIRATORY
<input checked="" type="checkbox"/> DOSIMETER	<input type="checkbox"/> LAB COAT	<input checked="" type="checkbox"/> GLOVE LINERS	<input type="checkbox"/> FULL FACE
<input checked="" type="checkbox"/> TLD BADGE	<input checked="" type="checkbox"/> COVERALLS	<input checked="" type="checkbox"/> RUBBER GLOVES	<input type="checkbox"/> IN-LINE
<input type="checkbox"/>	<input checked="" type="checkbox"/> HOOD/CAP	<input type="checkbox"/> PAPER SUIT	<input checked="" type="checkbox"/> SCBA
<input type="checkbox"/>	<input checked="" type="checkbox"/> SHOE COVERS	<input checked="" type="checkbox"/> PLASTIC SUIT	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	

SPECIAL INSTRUCTIONS

WORKERS LISTED MUST READ AND INITIAL RWP PRIOR TO FIRST CONTROLLED AREA ENTRY.
 WORKERS MUST CHECK CREW DOSE DAILY FOR UP-TO-DATE EXPOSURE LIMITS.

APPROVAL

WORK SUPERVISOR Joe Supervisor
 R.P.D. Onashit H. Pea
 E.D. _____


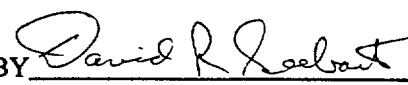
TERMINATION

DATE _____
 BY _____
 COMP. CANC. EXP. EOM

REMARKS:

GRID MAP LOC. _____

FINAL DOSE _____ MAN-HOURS _____

WISCONSIN PUBLIC SERVICE CORPORATION		NO. EP-AD-11		REV. P	
KEWAUNEE NUCLEAR POWER PLANT		TITLE: Emergency Radiation Controls			
EMERGENCY PLAN IMPLEMENTING PROCEDURE		DATE AUG 10 1999		PAGE 1 of 7	
REVIEWED BY 		APPROVED BY 			
NUCLEAR SAFETY RELATED	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	PORC REVIEW REQUIRED	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	SRO APPROVAL OF TEMPORARY CHANGES REQUIRED	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

1.0 PURPOSE

- 1.1 The purpose of this procedure is to maintain exposure to emergency workers As Low As Reasonably Achievable (ALARA).

2.0 APPLICABILITY

- 2.1 This procedure will be implemented during an Alert, Site Emergency or General Emergency.

3.0 DEFINITIONS

- 3.1 FEMA - Federal Emergency Management Agency
- 3.2 HP - Health Physics
- 3.3 PA - Protected Area
- 3.4 RCA - Radiologically Controlled Area

4.0 RESPONSIBILITIES

- 4.1 All emergency personnel are responsible for adhering to the requirements of this procedure.
- 4.1.1 The requirements of the Health Physics Procedure Manual shall be applicable during all radiological emergencies, except as authorized by the Radiological Protection Director (RPD) or Emergency Director (ED).

WISCONSIN PUBLIC SERVICE CORPORATION KEWAUNEE NUCLEAR POWER PLANT EMERGENCY PLAN IMPLEMENTING PROCEDURE	NO. EP-AD-11 REV. P	
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- 4.1.2 For RCA entries, if any 10 CFR 20 dose limit is likely to be exceeded, an Emergency Radiation Work Permit (ERWP) shall be completed, EPIP Form AD 11.1. Otherwise, use an existing Radiation Work Permit (RWP) or fill out a RWP in accordance with NAD 8.3.
- 4.1.3 A PRIORITY ENTRY can be used for quick action to expedite the entry of emergency response personnel into the RCA in accordance with EP-RET-2D.
- 4.1.4 For any entry where an exposure greater than 10 CFR 20 dose limits is likely, an Authorization For Increased Radiation Exposure (Form HPF-120) shall be completed in accordance with HP-1.03. All exposures which could exceed 10 CFR 20 dose limits shall be approved by the ED.

10 CFR 20 RADIATION DOSE LIMITS

TEDE, ADULT	ANNUAL	5 REM
TODE, ADULT	ANNUAL	50 REM
LDE, ADULT	ANNUAL	15 REM
SDE, SKIN, ADULT	ANNUAL	50 REM
SDE, EXTREMITY, ADULT	ANNUAL	50 REM
DAC-HOUR, ADULT	ANNUAL	2000 DAC-HOURS

WISCONSIN PUBLIC SERVICE CORPORATION KEWAUNEE NUCLEAR POWER PLANT EMERGENCY PLAN IMPLEMENTING PROCEDURE	NO. EP-AD-11 REV. P	
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EPA RADIATION DOSE GUIDELINES (EPA-400 TABLE 2-2)		
Projected Dose (Rem) to Emergency Team Workers	Action/Condition	Comments
TEDE < 5 Rem All other Organs < 50 Rem TOD	Control exposure of emergency workers to these levels except for those instances listed below. (Appropriate controls for emergency workers, include time limitations, respirators, and stable iodine.)	"All Other Organs," include; Skin Extremities and Thyroid. Stable Iodine may be made available for use where predicted doses exceed 25 Rem to the thyroid.
TEDE < 10 Rem All other Organs < 100 Rem TOD	Emergency workers exposure should be controlled below these levels when their mission involves protecting valuable property.	Although respirators and stable iodine should be used where effective to control dose to emergency team workers, thyroid dose may not be a limiting factor for lifesaving missions.
TEDE < 25 Rem All other Organs < 250 Rem TOD	Emergency workers exposure should be controlled below these levels when their mission involves life saving or protection of large populations.	For Environmental/Monitoring Teams, refer to KRDOSE "Maximum Doses at selected Distances" output screen.
TEDE > 25 Rem All other Organs > 250 Rem TOD	Exposures above these levels to emergency workers will be on a voluntary basis only to persons fully aware of the risks involved.	Check bone, lung, thyroid doses.

4.2 The **Emergency Director (ED)** is responsible for approving all requests for exposure in excess of 10 CFR 20 dose limits.

4.3 The **Radiological Protection Director (RPD)** has the overall responsibility for in-plant personnel monitoring and shall:

4.3.1 Evaluate any potential exposure to radiation in excess of 10 CFR 20 dose limits for approval by the ED (Form HPF-110) in accordance with HP-5.01. In the absence of the RPD, the ED may authorize an overexposure after concurrence of the on-shift HP or an In-plant Radiation Emergency Team (IRET) member.

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4.3.2 In accordance with EP-AD-18, advise the ED on the need to make thyroid blocking agent (potassium iodide, a stable iodine) available to Emergency Response Organization (ERO) members who may be subject to radioiodine intake.

4.3.3 Review all RWP and ERWPs in use.

4.3.4 Establish control over radiation, high radiation or contamination areas discovered outside the normal RCA when levels are found to exceed the following:

2 mr/hr	direct radiation
2000 DPM/100 cm ²	beta-gamma
200 DPM/100 cm ²	alpha

This control may include:

- Roping off and posting additional areas within the plant.
- Roping off and posting all doors to an entire building.
- Designating and posting the entire PA as RCA.
- Establishing roadblocks in conjunction with the ED and Site Protection Director (SPD) and designating the entire area within the roadblocks as RCA.

NOTE: *Emergency response personnel reporting to the plant shall not be required to initial their RWP prior to RCA entry when the RCA is expanded. The RWP shall be initialed prior to making entries at the Radiation Protection Office (RPO) or Radiological Access Facility (RAF). See EP-AD-11, Part 4.1, for Emergency RWP (ERWP) requirements.*

4.4 The In-Plant Radiation Emergency Team (IRET) is responsible for performing those activities necessary to implement the purpose of this procedure.

4.4.1 Make radiological assessments of all in-plant areas requiring access during an emergency.

4.4.2 Report in-plant radiological conditions to the RPD.

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4.4.3 Determine the projected amount of time in-plant emergency workers will be allowed to remain in any radiation/contaminated area through pre-entry review of:

- a. Projected route exposures.
- b. Measured dose rates and airborne concentrations.
- c. Personnel exposure history.
- d. Projected duration of task.
- e. Information on current plant conditions and the plant area under consideration.

4.4.4 Provide radiation monitoring coverage for all continuously occupied areas.

4.4.5 Perform air sample surveys and direct radiation surveys as directed.

4.4.6 Control exposure to airborne radionuclides in accordance with the following:

- a. Use only Self Contained Breathing Apparatus (SCBA) pressure-demand respirators when entering areas of unknown airborne concentrations.
- b. Limit airborne particulate exposures to < 200 DAC-HOURS to the maximum extent possible.
- c. Remove any worker from further emergency duties upon exceeding 2,000 DAC-HOURS.
- d. Assess internal dose by performing whole body counts in accordance with procedure HP-3.08.

4.4.7 Review all planned entries with the entry team members and discuss the following:

NOTE: *For entry teams originating from the Operational Support Facility (OSF), document the items below on EPIP Form OSF 3.*

- a. Potential stress conditions and problems.
- b. Work methods, work location and description of task.
- c. Number of personnel required and access routes inside the RCA.
- d. Allowable exposure limits, expected doses, stay times.
- e. Tools, equipment, and parts.
- f. Lighting.

WISCONSIN PUBLIC SERVICE CORPORATION KEWAUNEE NUCLEAR POWER PLANT EMERGENCY PLAN IMPLEMENTING PROCEDURE	NO. EP-AD-11 REV. P	
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- g. Communications requirements.
- h. Abort instructions.

4.4.8 As directed, accompany any worker entering an area where radiological conditions are unknown.

4.4.9 Remove any individual who has exceeded 10 CFR 20 dose limits from work involving additional radiation exposure. The worker's exposure record shall be reviewed by the RPD and ED prior to further radiation work. Any further radiation work must be authorized by the ED.

4.4.10 As directed, store samples collected post-accident in designated storage locations. Liquid, air particulate and halogen filter samples should be stored in the radioactive waste storage areas of the Auxiliary Building. At the Site Boundary Facility (SBF), shielded drums are available for storage of environmental samples.

5.0 REQUIREMENTS

5.1 Not Applicable

6.0 REFERENCES

- 6.1 Kewaunee Nuclear Power Plant Emergency Plan
- 6.2 NUREG-0654/FEMA-REP-1, REV. 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants (Nov. 1980)
- 6.3 EPA-400-R-92-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents (Oct. 1991)
- 6.4 Code of Federal Regulations 10 CFR 20
- 6.5 Kewaunee Nuclear Power Plant Health Physics Procedure Manual
- 6.6 KNPP Commitment Tracking System number 97-125, NRC Inspection Report 97-13, Repair Personnel

WISCONSIN PUBLIC SERVICE CORPORATION KEWAUNEE NUCLEAR POWER PLANT EMERGENCY PLAN IMPLEMENTING PROCEDURE	NO. EP-AD-11 REV. P	
	TITLE: Emergency Radiation Controls	
	DATE AUG 10 1999	PAGE 7 of 7

7.0 **IMPLEMENTING PROCEDURES**

- 7.1 EP-RET-2D, Emergency Radiation Entry Controls and Implementation
- 7.2 NAD 8.3, Radiation Work Permit
- 7.3 EP-AD-18, Potassium Iodide Distribution
- 7.4 EP Appendix B, Forms
- 7.5 HP-3.08, Evaluation of Inhalations or Ingestions
- 7.6 HP-1.03, Administrative Exposure Control and Records
- 7.7 HP-5.01, Survey and Sampling Techniques

8.0 **RECORDS**

- 8.1 The following QA records and non-QA records are identified in this directive/procedure and are listed on the KNPP Records Retention Schedule. These records shall be maintained according to the KNPP Records Management Program.

8.1.1 QA Records

- Emergency Radiation Work Permit, EPIP Form AD 11.1

8.1.2 Non-QA Records

None

WISCONSIN PUBLIC SERVICE CORPORATION KEWAUNEE NUCLEAR POWER PLANT JOB PERFORMANCE MEASURE	NO. O-LRQ-JPM-A.4	REV. Orig
	TITLE: Fill out Event Notification Worksheet	
	DATE	PAGE: 1

APPROVED BY:

Nuclear Training Supervisor-Operations

Assistant Manager Kewaunee Plant - Operations

PERFORMED BY:

Trainee

Evaluator

EVALUATION LOCATION:	PLANT/SIMULATOR/CONTROL ROOM	Simulator/Control Room
EVALUATION METHOD:	PERFORM/SIMULATE	Perform
AVE. COMPLETION TIME:	AVE. TIME FOR THIS JPM	10 MINUTES
TIME CRITICAL TASK:	YES/NO	Yes
MAX. COMPLETION TIME:	N/A FOR NON-TIME CRITICAL TASKS	60 MINUTES
PERFORMANCE LEVEL:	SRO/RO/NAO	SRO
TASK NUMBER:	FROM OPS TRNG DATABASE	1190090302
TASK TYPE:	INITIAL/CONTINUING (FROM OPS TRNG DATABASE)	Initial
PLANT SYSTEM:	NAME	Admin.
CRITICAL STEPS:	(C) = CRITICAL	2, 3, 7, 8, 9, 10, 11, 12, 13, 14, and 15
	(S) = SEQUENCE CRITICAL	None
	(T) = TIME CRITICAL	1 to 17
SPECIAL TOOLS AND EQUIPMENT:	SPECIAL ITEMS REQUIRED TO COMPLETE JPM	None
REFERENCES:	REFERENCES USED FOR PERFORMANCE OF JPM	GNP 11.4.4 Event Notification Worksheet

READ THE FOLLOWING TO THE OPERATOR:

THIS TASK IS TIME CRITICAL

THE TASK CONDITIONS ARE:

- You are the Shift Manager.
- The plant is at 55% and shutting down from 100% power at .25%/min. due to Tech. Spec. requirements.
- Caustic Additive Standpipe has developed a leak, which drained 200 gallons of NaOH from the standpipe.
- Due to chemical clean up, the repair was delayed 43 hours.
- Pipe thinning has made several repair attempts unsuccessful.
- Repair and leak location has prevented any addition of NaOH.
- Currently plant is working on repair strategies and awaiting replacement piping.
- The replacement piping should arrive today and it is estimated the repair will be completed tomorrow morning.
- The leak was discovered 76 hours ago and you are currently 3 hours into the Tech Spec. required Shutdown.
- All other systems and components are operating properly.
- NRC Resident has been notified of the shutdown.

THE STEPS IN THIS JPM SHOULD BE: Performed

INITIATING CUE:

As the Shift Manager, you are to fill out the Event Notification Worksheet in preparation of making the 4 hour notification.

DO YOU HAVE ANY QUESTIONS BEFORE WE BEGIN?

Answer any questions the Operator may have, THEN read the following to the Operator to initiate the JPM performance:

LET'S BEGIN

THIS TASK IS TIME CRITICAL

THE TASK CONDITIONS ARE:

- You are the Shift Manager.
- The plant is at 55% and shutting down from 100% power at .25%/min. due to Tech. Spec. requirements.
- Caustic Additive Standpipe has developed a leak, which drained 200 gallons of NaOH from the standpipe.
- Due to chemical clean up, the repair was delayed 43 hours.
- Pipe thinning has made several repair attempts unsuccessful.
- Repair and leak location has prevented any addition of NaOH.
- Currently plant is working on repair strategies and awaiting replacement piping.
- The replacement piping should arrive today and it is estimated the repair will be completed tomorrow morning.
- The leak was discovered 76 hours ago and you are currently 3 hours into the Tech Spec. required Shutdown.
- All other systems and components are operating properly.
- NRC Resident has been notified of the shutdown.

INITIATING CUE:

As the Shift Manager, you are to fill out the Event Notification Worksheet in preparation of making the 4 hour notification.

If required (only for JPM performance on the simulator), take the simulator out of freeze.

Use the JPM evaluation form to mark the operator's performance as the task is being done.

Provide any necessary cues for the JPM.

Take notes to support the resulting pass/fail grade.

For unsatisfactory grades, documentation must be noted in the comment section of the JPM evaluation form.

For any unsatisfactory grades, the JPM evaluation form will be filed in the individual's training file.

LOG START TIME:

STEP	PERFORMANCE ITEM	* STANDARD	SAT/ UNSAT	
			S	U
1.	Obtain Event Notification Worksheet.	* Obtain Event Notification Worksheet.		
(c)2.	Fill in Notification Time block.	* Fill In Notification Time with current Time		
(c)3.	Fill in Facility or Organization block.	* Fill in Facility or Organization block with Kewaunee		
4.	Fill in Unit block.	* Fill in Unit block with 1 or NA		
5.	Fill in Name of Caller block.	* Fill in Name of Caller block with name.		
6.	Fill in Call Back # block.	* Fill in Call Back # block plant Telephone Number.		
(c)7.	Fill in Event time & Zone block.	* Fill in Event time & Zone block with three (3) hours ago CDT from current time.		
(c)8.	Fill in Event Date block.	* Fill in Event Date block with current date.		
(c)9.	Fill in Power/Mode Before block.	* Fill in Power/Mode Before block with 100% Operating.		
(c)10.	Fill in Power/Mode After block.	* Fill in Power/Mode After block with 55% operating.		
(c)11.	Mark 4-hr Mon Emergency 10 CFR 50.72(B)(2) for TS Required S/D.	* 4-hr Mon Emergency 10 CFR 50.72(B)(2) for TS Required S/D Marked.		
(c)12.	Provide description of event.	* Provide description of event based on provided Plant Conditions		
(c)13.	Mark Notification.	* Mark NRC Resident as YES and the remainder as NO		
(c)14.	Mark the "Anything Unusual Or Not Understood" block	* "Anything Unusual Or Not Understood" block marked NO		
(c)15.	Mark the "Did All Systems Function As Required" block	* "Did All Systems Function As Required" block marked YES.		
16.	Fill in Mode Of Operation Until Corrected block.	* Fill in Mode Of Operation Until Corrected block with shutdown.		
17.	Fill in Estimated Restart Date block.	* Fill in Estimated Restart Date block with tomorrows date.		
18.	Mark Additional Info on Back.	* Mark Additional Info on Back as required.		

* Indicates required items for satisfactory completion of performance items.

LOG STOP TIME:

When the operator completes the performance portion of the JPM, then read the following:

THAT COMPLETES THIS PORTION OF THE JPM.

Ask any required follow-up questions and note the questions and answers in the JPM evaluation comments section.

When done with any required follow-up questions, then read the following:

THAT COMPLETES THIS JPM.

Make sure your documentation on the next page is complete.

YES NO N/A

Were all of the critical steps performed correctly?			
IF the JPM was time critical, THEN was the JPM completed in the designated time?			
IF the JPM was NOT time critical, THEN was acceptable progress made in performing the task?			
Was the task standard met?			

IF any of the above questions was answered with a NO response, THEN this JPM must be evaluated as UNSATISFACTORY.

THE TASK STANDARD FOR THIS JPM IS:

Event Notification Worksheet is filled out.

Job Performance Measure was:

SATISFACTORY _____ UNSATISFACTORY _____

EVALUATOR SIGNATURE: _____ DATE: _____

COMMENTS:

NRC FORM 361
(12-2000)U.S. NUCLEAR REGULATORY COMMISSION
OPERATIONS CENTER

REACTOR PLANT EVENT NOTIFICATION WORKSHEET

EN #

NRC OPERATION TELEPHONE NUMBER: PRIMARY – 301-818-5100 or 800-532-3469*, BACKUPS – [1st] 301-951-0550 or 800-449-3694*,
[2nd] 301-415-0550 and [3rd] 301-415-0553

*Licensees who maintain their own ETS are provided these telephone numbers.

NOTIFICATION TIME	FACILITY OR ORGANIZATION	UNIT	NAME OF CALLER	CALL BACK #
EVENT TIME & ZONE	EVENT DATE	POWERMODE BEFORE	POWERMODE AFTER	
EVENT CLASSIFICATIONS		1-Hr. Non-Emergency 10 CFR 50.72(b)(1)		
GENERAL EMERGENCY	GEN/AAEC	TS Deviation	ADEV	(v)(A) Safe S/D Capability AINA
SITE AREA EMERGENCY	SIT/AAEC	4-Hr. Non-Emergency 10 CFR 50.72(b)(2)		(v)(B) RHR Capability AINB
ALERT	AL/AAEC	(i) TS Required S/D	ASHU	(v)(C) Control of Rad Release AINC
UNUSUAL EVENT	UNU/AAEC	(iv)(A) ECCS Discharge to RCS	ACCS	(v)(D) Accident Mitigation AIND
50.72 NON-EMERGENCY (see next columns)		(iv)(B) RPS Actuation (scram)	ARPS	(xii) Offsite Medical AMED
PHYSICAL SECURITY (73.71)	DDDD	(xi) Offsite Notification	APRE	(xiii) Loss Comm/Asmt/Resp ACCM
MATERIAL/EXPOSURE	B???	8-Hr. Non-Emergency 10 CFR 50.72(b)(3)		60-Day Optional 10 CFR 50.73(a)(1)
FITNESS FOR DUTY	HFT	(ii)(A) Degraded Condition	ADEG	Invalid Specified System Actuation AINV
OTHER UNSPECIFIED REQMT. (see last column)		(ii)(B) Unanalyzed Condition	AUNA	Other Unspecified Requirement (Identify)
INFORMATION ONLY	NNF	(iv)(A) Specified System Actuation	AESF	NONR

DESCRIPTION

Include: Systems affected, actuations and their initiating signals, causes, effect of event on plant, actions taken or planned, etc. (Continue on back)

NOTIFICATIONS	YES	NO	WILL BE	ANYTHING UNUSUAL OR NOT UNDERSTOOD?	<input type="checkbox"/> YES (Explain above)	<input type="checkbox"/> NO	ANYTHING UNUSUAL OR
NRC RESIDENT							
STATE(s)				DID ALL SYSTEMS FUNCTION AS REQUIRED?	<input type="checkbox"/> YES	<input type="checkbox"/> NO (Explain above)	
LOCAL							
OTHER GOV AGENCIES				MODE OF OPERATION UNTIL CORRECTED:	ESTIMATED RESTART DATE:	ADDITIONAL INFO ON BACK	
MEDIA/PRESS RELEASE						<input type="checkbox"/> YES <input type="checkbox"/> NO	

RADIOLOGICAL RELEASES: CHECK OR FILL IN APPLICABLE ITEMS *(specific details/explanations should be covered in event description)*

LIQUID RELEASE	GASEOUS RELEASE	UNPLANNED RELEASE	PLANNED RELEASE	ONGOING	TERMINATED
MONITORED	UNMONITORED	OFFSITE RELEASE	T. S. EXCEEDED	RM ALARMS	AREAS EVACUATED
PERSONNEL EXPOSED OR CONTAMINATED	OFFSITE PROTECTIVE ACTIONS RECOMMENDED			*State release path in description	

	Release Rate (Ci/sec)	% T. S. LIMIT	HOO GUIDE	Total Activity (Ci)	% T. S. LIMIT	HOO GUIDE
Noble Gas			0.1 Ci/sec			1000 Ci
Iodine			10 uCi/sec			0.01 Ci
Particulate			1 uCi/sec			1 mCi
Liquid (excluding tritium and dissolved noble gases)			10 uCi/min			0.1 Ci
Liquid (tritium)			0.2 Ci/min			5 Ci
Total Activity						

	PLANT STACK	CONDENSER/AIR EJECTOR	MAIN STEAM LINE	SG BLOWDOWN	OTHER
RAD MONITOR READINGS					
ALARM SETPOINTS					
% T. S. LIMIT (if applicable)					

RCS OR SG TUBE LEAKS: CHECK OR FILL IN APPLICABLE ITEMS: *(specific details/explanations should be covered in event description)*

LOCATION OF THE LEAK (e.g., SG #, valve, pipe, etc.)

LEAK RATE	UNITS: gpm/gpd	T. S. LIMITS	SUDDEN OR LONG-TERM DEVELOPMENT
LEAK START DATE	TIME	COOLANT ACTIVITY AND UNITS:	PRIMARY SECONDARY

LIST OF SAFETY RELATED EQUIPMENT NOT OPERATIONAL

EVENT DESCRIPTION (Continued from front)

PROCEDURE STATUS SHEET

PROCEDURE NO. GNP 11.4.4 REV. D

PROCEDURE TITLE: Completion and Use of the Event Notification Worksheet

NOTE: Check all that apply.

* ☒ IDENTIFIED TECHNICAL CONTENT(S) INADEQUATE

☐ ENTIRE PROCEDURE - SEE COMMENTS

☒ PARTIAL PROCEDURE - SEE COMMENTS

* ☐ REQUIRES REVIEW PRIOR TO USE

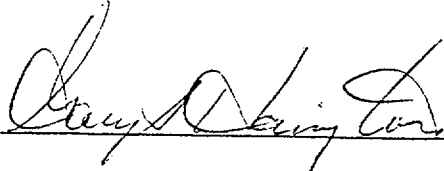
☐ TEMPORARY CHANGE - SEE COMMENTS

☐ NOT ACCEPTABLE FOR USE

☒ ACCEPTABLE FOR USE

COMMENTS: (Sufficient detail(s) required.)

Effective January 23, 2001, the 10CFR250.72 and 73 reporting criteria will change. Accordingly, the event report form also changes. Attached is a copy of the new form which should be used to submit information to the NRC. The procedure steps as written in Revision D to GNP 11.4.4 are unaffected and can still be used to fill out the revised form. The new form changes do not constitute a change in intent for the procedure.

INITIATED BY  DATE 1/19/01

*cc: CONTROL ROOM
TSC - LOWER

NRC FORM 361
(12-2000)U.S. NUCLEAR REGULATORY COMMISSION
OPERATIONS CENTERREACTOR PLANT
EVENT NOTIFICATION WORKSHEET

EN #

NRC OPERATION TELEPHONE NUMBER: PRIMARY -- 301-816-5100 or 800-532-3469*, BACKUPS -- [1st] 301-951-0550 or 800-449-3694*,
[2nd] 301-415-0550 and [3rd] 301-415-0553

*Licensees who maintain their own ETS are provided these telephone numbers.

NOTIFICATION TIME	FACILITY OR ORGANIZATION	UNIT	NAME OF CALLER	CALL BACK #
EVENT TIME & ZONE	EVENT DATE	POWER/MODE BEFORE	POWER/MODE AFTER	
EVENT CLASSIFICATIONS		1-Hr. Non-Emergency 10 CFR 50.72(b)(1)		
GENERAL EMERGENCY	GEN/AAEC	TS Deviation	ADEV	(v)(A) Safe S/D Capability AINA
SITE AREA EMERGENCY	SIT/AAEC	4-Hr. Non-Emergency 10 CFR 50.72(b)(2)		(v)(B) RHR Capability AINB
ALERT	ALE/AAEC	(i) TS Required S/D	ASHU	(v)(C) Control of Rad Release AINC
UNUSUAL EVENT	UNU/AAEC	(iv)(A) ECCS Discharge to RCS	ACCS	(v)(D) Accident Mitigation AIND
50.72 NON-EMERGENCY	(see next columns)	(iv)(B) RPS Actuation (scram)	ARPS	(xii) Offsite Medical AMED
PHYSICAL SECURITY (73.71)	DDDD	(xi) Offsite Notification	APRE	(xiii) Loss Comm/Asmt/Resp ACCM
MATERIAL EXPOSURE	B???	8-Hr. Non-Emergency 10 CFR 50.72(b)(3)		60-Day Optional 10 CFR 50.73(a)(1)
FITNESS FOR DUTY	HFIT	(ii)(A) Degraded Condition	ADEG	Invalid Specified System Actuation AINV
OTHER UNSPECIFIED RECMT.	(see last column)	(ii)(B) Unanalyzed Condition	AUNA	Other Unspecified Requirement (Identify)
INFORMATION ONLY	NNF	(iv)(A) Specified System Actuation	AESF	NONR

DESCRIPTION

Include: Systems affected, actuations and their initiating signals, causes, effect of event on plant, actions taken or planned, etc. (Continue on back)

NOTIFICATIONS	YES	NO	WILL BE	ANYTHING UNUSUAL OR NOT UNDERSTOOD?	<input type="checkbox"/> YES (Explain above)	<input type="checkbox"/> NO
NRC RESIDENT						
DATE(s)				DID ALL SYSTEMS FUNCTION AS REQUIRED?	<input type="checkbox"/> YES	<input type="checkbox"/> NO (Explain above)
CAL						
OTHER GOV AGENCIES				MODE OF OPERATION UNTIL CORRECTED:	ESTIMATED RESTART DATE:	ADDITIONAL INFO ON BACK
MEDIA/PRESS RELEASE						<input type="checkbox"/> YES <input type="checkbox"/> NO

RADIOLOGICAL RELEASES: CHECK OR FILL IN APPLICABLE ITEMS *(specific details/explanations should be covered in event description)*

LIQUID RELEASE	GASEOUS RELEASE	UNPLANNED RELEASE	PLANNED RELEASE	ONGOING	TERMINATED
MONITORED	UNMONITORED	OFFSITE RELEASE	T. S. EXCEEDED	RM ALARMS	AREAS EVACUATED
PERSONNEL EXPOSED OR CONTAMINATED		OFFSITE PROTECTIVE ACTIONS RECOMMENDED		*State release path in description	

	Release Rate (Ci/sec)	% T. S. LIMIT	HOO GUIDE	Total Activity (Ci)	% T. S. LIMIT	HOO GUIDE
Noble Gas			0.1 Ci/sec			1000 Ci
Iodine			10 uCi/sec			0.01 Ci
Particulate			1 uCi/sec			1 mCi
Liquid (excluding tritium and dissolved noble gases)			10 uCi/min			0.1 Ci
Liquid (tritium)			0.2 Ci/min			5 Ci
Total Activity						

	PLANT STACK	CONDENSER/AIR EJECTOR	MAIN STEAM LINE	SG BLOWDOWN	OTHER
RAD MONITOR READINGS					
ALARM SETPOINTS					
% T. S. LIMIT (if applicable)					

RCS OR SG TUBE LEAKS: CHECK OR FILL IN APPLICABLE ITEMS: *(specific details/explanations should be covered in event description)*

LOCATION OF THE LEAK (e.g., SG #, valve, pipe, etc.)

LEAK RATE	UNITS: gpm/gpd	T. S. LIMITS	SUDDEN OR LONG-TERM DEVELOPMENT
LEAK START DATE	TIME	COOLANT ACTIVITY AND UNITS:	PRIMARY SECONDARY

LIST OF SAFETY RELATED EQUIPMENT NOT OPERATIONAL

EVENT DESCRIPTION (Continued from front)

NRC FORM 361
(12-2000)U.S. NUCLEAR REGULATORY COMMISSION
OPERATIONS CENTERREACTOR PLANT
EVENT NOTIFICATION WORKSHEET

EN #

NRC OPERATION TELEPHONE NUMBER: PRIMARY – 301-816-5100 or 800-532-3469*, BACKUPS – [1st] 301-951-0550 or 800-449-3694*,
[2nd] 301-415-0550 and [3rd] 301-415-0553

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EVENT TIME & ZONE	EVENT DATE	POWERMODE BEFORE	POWERMODE AFTER	
EVENT CLASSIFICATIONS		1-Hr. Non-Emergency 10 CFR 50.72(b)(1)		
GENERAL EMERGENCY	GEN/AAEC	TS Deviation	ADEV	(v)(A) Safe S/D Capability AINA
SITE AREA EMERGENCY	SIT/AAEC	4-Hr. Non-Emergency 10 CFR 50.72(b)(2)		(v)(B) RHR Capability AINB
ALERT	ALE/AAEC	(i) TS Required S/D	ASHU	(v)(C) Control of Rad Release AINC
UNUSUAL EVENT	UNU/AAEC	(iv)(A) ECCS Discharge to RCS	ACCS	(v)(D) Accident Mitigation AIND
50.72 NON-EMERGENCY (see next columns)		(iv)(B) RPS Actuation (scram)	ARPS	(xii) Offsite Medical AMED
PHYSICAL SECURITY (73.71)	DDDD	(xi) Offsite Mitigation	APRE	(xiii) Loss Comm/Asmt/Resp ACOM
MATERIAL EXPOSURE	B???	8-Hr. Non-Emergency 10 CFR 50.72(b)(3)		60-Day Optional 10 CFR 50.73(a)(1)
FITNESS FOR DUTY	HFIT	(ii)(A) Degraded Condition	ADEG	Invalid Specified System Actuation AINV
OTHER UNSPECIFIED RECMT. (see last column)		(ii)(B) Unanalyzed Condition	AUNA	Other Unspecified Requirement (Identify)
INFORMATION ONLY	NNF	(iv)(A) Specified System Actuation	AESF	NCNR

DESCRIPTION

Include: Systems affected, actuations and their initiating signals, causes, effect of event on plant, actions taken or planned, etc. (Continue on back)

3

NOTIFICATIONS	YES	NO	WILL BE	ANYTHING UNUSUAL OR NOT UNDERSTOOD?	<input type="checkbox"/> YES (Explain above)	<input type="checkbox"/> NO
NRC RESIDENT						
STATE(s)				DID ALL SYSTEMS FUNCTION AS REQUIRED?	<input type="checkbox"/> YES	<input type="checkbox"/> NO (Explain above)
CAL						
OTHER GOV AGENCIES				MODE OF OPERATION UNTIL CORRECTED:	ESTIMATED RESTART DATE:	ADDITIONAL INFO ON BACK
MEDIA/PRESS RELEASE						<input type="checkbox"/> YES <input type="checkbox"/> NO

RADIOLOGICAL RELEASES: CHECK OR FILL IN APPLICABLE ITEMS *(specific details/explanations should be covered in event description)*

LIQUID RELEASE	GASEOUS RELEASE	UNPLANNED RELEASE	PLANNED RELEASE	ONGOING	TERMINATED
MONITORED	UNMONITORED	OFFSITE RELEASE	T. S. EXCEEDED	RM ALARMS	AREAS EVACUATED
PERSONNEL EXPOSED OR CONTAMINATED		OFFSITE PROTECTIVE ACTIONS RECOMMENDED		*State release path in description	

	Release Rate (Ci/sec)	% T. S. LIMIT	HOO GUIDE	Total Activity (Ci)	% T. S. LIMIT	HOO GUIDE
Noble Gas			0.1 Ci/sec			1000 Ci
Iodine			10 uCi/sec			0.01 Ci
Particulate			1 uCi/sec			1 mCi
Liquid (excluding tritium and dissolved noble gases)			10 uCi/min			0.1 Ci
Liquid (tritium)			0.2 Ci/min			5 Ci
Total Activity						

	PLANT STACK	CONDENSER/AIR EJECTOR	MAIN STEAM LINE	SG BLOWDOWN	OTHER
RAD MONITOR READINGS					
ALARM SETPOINTS					
% T. S. LIMIT (if applicable)					

RCS OR SG TUBE LEAKS: CHECK OR FILL IN APPLICABLE ITEMS: *(specific details/explanations should be covered in event description)*

LOCATION OF THE LEAK (e.g., SG #, valve, pipe, etc.)

LEAK RATE	UNITS: gpm/gpd	T. S. LIMITS	SUDDEN OR LONG-TERM DEVELOPMENT
LEAK START DATE	TIME	COOLANT ACTIVITY AND UNITS:	PRIMARY SECONDARY

LIST OF SAFETY RELATED EQUIPMENT NOT OPERATIONAL

EVENT DESCRIPTION (Continued from front)

Wisconsin Public Service Corporation		No. GNP 11.4.4 Rev. D	
Kewaunee Nuclear Power Plant		Title: Completion and Use of the Event Notification Worksheet	
GENERAL NUCLEAR PROCEDURE		Date FEB 03 1998	Page 1 of 11
Prepared By <u>Bradley McMahon</u>		Approved By <u>DJ Rogers</u>	
Reviewed By <u>Greg D. Ball</u>			
Nuclear Safety Related	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	PORC Review Required	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
		SRO Approval of Temporary Changes Required	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

1.0 PURPOSE

The purpose of this GNP is to provide guidance for completing the Event Notification Worksheet and reporting the information to the NRC following an NRC reportable event at KNPP.

2.0 APPLICABILITY

This procedure is applicable to all plant personnel who are responsible for the completion of the Event Notification Worksheet.

3.0 DEFINITIONS

Event Notification Worksheet - Form GNP 11.4.4-1 which is used to provide information to NRC about reportable events.

4.0 RESPONSIBILITIES

The Shift Supervisor or Shift Technical Advisor will normally be responsible for completion of the Event Notification Worksheet. Form GNP 11.4.4-1 reflects 3/90 revision of NRC Form 361.

Wisconsin Public Service Corporation Kewaunee Nuclear Power Plant GENERAL NUCLEAR PROCEDURE	No. GNP 11.4.4 Rev. D	
	Title: Completion and Use of the Event Notification Worksheet	
	Date FEB 03 1998	Page 2 of 11

5.0 COMPLETION OF THE EVENT NOTIFICATION WORKSHEET (ENW)

NOTE: See Figure GNP 11.4.4-1 for Event Notification Worksheet sections.

5.1 Complete the following items of Section 1:

- 5.1.1 Caller's name
- 5.1.2 Event time and time zone (initiation of event)
- 5.1.3 Event date
- 5.1.4 Power/Mode prior to the event (100%, HSD, etc.)
- 5.1.5 Power/Mode after the event (100%, HSD, etc.)

Leave the Notification Time and NRC Duty Officer spaces blank until the actual notification is made to the NRC (Step 6.0).

5.2 Determine all areas for which the event is reportable and note them in Section 2. GNP 11.8.4 and NUREG-1022 (both available in the Control Room) provide additional guidance for reportability determination.

5.3 Complete the Event Description (Section 3). Space on the back (i.e., Page 2) of the ENW is available if needed. The description should contain the following items:

- 5.3.1 Description of the event (include dates and times as appropriate)
- 5.3.2 Plant systems affected by the event
- 5.3.3 Safeguards equipment that actuated (include the initiating signals if known)
- 5.3.4 Cause of event (if known)
- 5.3.5 Effect of the event on the plant (trip, runback, etc.)
- 5.3.6 Corrective actions taken or planned due to the event
- 5.3.7 Any equipment actuations (or equipment failures) that occurred during the event that are unusual or not understood
- 5.3.8 Justification for the reportability determination listed in Section 2
- 5.3.9 Current plant conditions and restart/cooldown plans (if applicable)
- 5.3.10 Radiological release path (if applicable)

DO NOT speculate in the event description. List only facts which are known about the event.

Wisconsin Public Service Corporation	No. GNP 11.4.4	Rev. D
Kewaunee Nuclear Power Plant	Title: Completion and Use of the Event Notification Worksheet	
GENERAL NUCLEAR PROCEDURE	Date FEB 03 1998	Page 3 of 11

NOTE: *State and Local Governments and other government agencies will normally be notified only when an Emergency Plan Emergency Classification has been entered.*

5.4 List notifications that have been or will be made in Section 4:

- 5.4.1 NRC Resident (Normally notified prior to notification of NRC-Headquarters)
- 5.4.2 State Government
- 5.4.3 Local (County, City) Government
- 5.4.4 Other government agencies
- 5.4.5 Press Release (If a press release is to be made concerning the event, the NRC would like to be notified prior to issuance of the press release)

5.5 Complete Section 5. The items in this section should also be explained in the Event Description. Section 5 contains:

- 5.5.1 Anything unusual or not understood? (Y/N)
- 5.5.2 Did all systems function as required? (Y/N)
- 5.5.3 Mode of operation until corrected (100%, HSD, etc.)
- 5.5.4 Estimated restart date/time if known
- 5.5.5 Additional information on the back (i.e., Page 2) of the ENW. The back side (i.e., Page 2) of the ENW contains information to be obtained for radiation releases, RCS leaks and Steam Generator tube leaks.

5.6 If the event does **NOT** involve a radiological release, RCS leak or Steam Generator tube leak, go to step 5.10.

5.7 Section 6 contains information for radiological releases. Complete only items which are known. Many of the items in this section will not be available for some time after the event. Items in Section 6 include:

- 5.7.1 Type of release:
 - 5.7.1.1 Liquid or Gaseous
 - 5.7.1.2 Unplanned or Planned
 - 5.7.1.3 Ongoing or Terminated
 - 5.7.1.4 Monitored or Unmonitored
 - 5.7.1.5 Offsite Release
 - 5.7.1.6 Radiation Monitor Alarms
 - 5.7.1.7 Areas Evacuated

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- 5.7.2 Personnel contaminated or exposed
- 5.7.3 Offsite protective actions recommended
- 5.7.4 Noble gas, Iodine, Particulate, liquid and total activity:
 - 5.7.4.1 Release rate (Curies/second)
 - 5.7.4.2 Total activity released (curies)
 - 5.7.4.3 Percentage of Tech. Spec. limit

The HOO (Headquarters Operations Officer) guide release rate information that is listed are threshold levels for the NRC Duty Officer. If any of these items are approached or exceeded, the NRC Duty Officer will immediately notify his/her superiors. Follow-up calls from the NRC should be expected in this case.

5.8 Complete Section 7 for the following radiation monitors:

- 5.8.1 Plant Stack (R-11/R-12/R-13/R-14/R-21)
- 5.8.2 Condenser/Air Ejector (R-15)
- 5.8.3 Main Steam Line (R-31/R-32/R-33/R-34)
- 5.8.4 Steam Generator Blowdown (R-19)
- 5.8.5 Other (Radiation monitors which provide additional information about plant conditions or release rates)

As with Section 6, complete only the items which are known. At KNPP, the ODCM limit will be substituted for the % T.S. limit. Percentages of these limits may not be available for many hours after an event.

Radiation Monitor alarm setpoints are listed in Drawing E-2021. Prior to providing these setpoints to NRC, verify that no recent Design Changes or Temporary Changes involving the radiation monitor setpoints have been completed.

5.9 Complete Section 8 for RCS leaks and Steam Generator tube leaks. Specific items include:

- 5.9.1 Location of the leak (Steam Generator if identified, RCS location)
- 5.9.2 Leak rate (gpm or gpd) with appropriate Tech. Spec. limits
- 5.9.3 Leak start date and time
- 5.9.4 RCS and Steam Generator coolant activities - provide only if known for current conditions
- 5.9.5 Sudden or Long Term development

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5.10 Complete Section 9 for Safety Related Equipment Not Operational.

5.10.1 List safety related equipment not operational prior to, during, or after the event

6.0 COMMUNICATION WITH NRC USING THE EVENT NOTIFICATION WORKSHEET

NOTE: *NRC phone notifications shall be initiated prior to exceeding the notification time limit (1 hr, 4 hr, etc.) for the event.*

NOTE: *The Shift Supervisor or Emergency Director should review the Event Notification Worksheet prior to communication with the NRC.*

NOTE: *Additional telephone numbers for the Resident Inspectors, Point Beach NRC office and NRC HQ/Regional offices are available in the Shift Supervisor's telephone book.*

6.1 Contact a KNPP NRC Resident Inspector and provide the information from the ENW to him/her.

6.1.1 If a KNPP NRC Resident Inspector cannot be notified, contact a NRC Resident Inspector at Point Beach Nuclear Plant and relay information from the ENW to him/her.

6.1.2 If unable to contact the KNPP or PBNP NRC Inspectors, proceed to Step 6.2 and contact the NRC-Headquarters. Upon completion of Step 6.2, continue efforts to contact a KNPP or PBNP Resident Inspector.

6.2 Contact the NRC-Headquarters and provide the information from the ENW. The NRC duty officer has a form similar to Form GNP 11.4.4-1 and fills it in as you read it to him. The NRC Duty Officer may request the ENW be faxed to him/her, be sure to obtain the fax number.

6.2.1 The preferred method of contact is the FTS (Federal Telecommunication System) phone in the Control Room/Shift Supervisor's office.

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- 6.2.2 The NRC prefers that, upon initiation of a call to NRC, the licensee give the name of the facility and state whether the event is an emergency or non-emergency. This will allow the NRC Duty Officer to prioritize incoming calls to NRC. For Example, state: "This is Kewaunee with a four hour non-emergency 10CFR50.72 Report."
- 6.2.3 Initiate the phone call to NRC-Headquarters. Obtain the NRC Duty Officer's name, and record this and the notification time on Section 1 of the ENW.
- 6.2.4 Provide the information from the ENW to the NRC Duty Officer.
 - 6.2.4.1 The NRC Duty Officer may ask questions in order to help clarify the event. Provide factual answers to the questions, if possible. If an answer to a NRC question is unknown, state this and also state that the information will be provided when known.
 - 6.2.4.2 Make note of additional questions asked at the bottom or on the back of the ENW. Also note any responses made to the questions.
 - 6.2.4.3 If an emergency occurs at KNPP, the NRC may request a continuous line of communication with KNPP. The Shift Supervisor or Shift Technical Advisor is responsible for providing this open line of communication if staff on-site can support the request and emergency duties.
- 6.2.5 If time permits, complete a separate Event Notification Worksheet for each phone call to NRC-Headquarters. This includes followup communication to NRC when additional information is requested as well as updates for an on-going event. If current conditions prohibit completing the Event Notification Worksheet for each notification, as a minimum, document the event notification on paper for future reference.
- 6.3 After completion of the notification, attach the ENW to the KAP written for the event (NAD 11.8).

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7.0 REFERENCES

- 7.1 NAD 11.8, Kewaunee Assessment Process (KAP)
- 7.2 NAD 11.5, "Security Event Report"
- 7.3 NUREG-1022
- 7.4 KNPP Off-Site Dose Calculation Manual
- 7.5 KNPP Technical Specifications
- 7.6 KNPP Night Order Book
- 7.7 GNP 11.8.4, Reportability Determination

8.0 RECORDS

- 8.1 The following QA records and non-QA records are identified in this directive/procedure and are listed on the KNPP Records Retention Schedule. These records shall be maintained according to the KNPP Records Management Program.

8.1.1 QA Records

- Event Notification Worksheet, Form GNP 11.4.4-1.

8.1.2 Non-QA Records

None

Figure GNP 11.4.4-1

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EVENT NOTIFICATION WORKSHEET			U.S. NUCLEAR REGULATORY COMMISSION OPERATIONS CENTER	
NOTIFICATION TIME	FACILITY OR ORGANIZATION KEWAUNEE	UNIT 1	CALLER'S NAME	CALL BACK #: ENS _____ or () _____
EVENT TIME & ZONE	EVENT DATE / /		NRC DUTY OFFICER	
POWER/MODE BEFORE	POWER/MODE AFTER			

		1-Hr Non-Emergency 10CFR50.72(b)(1)	(v) Emergency Siren INOP
		(i)(A) TS Required S/D	(vi) Fire
		(i)(B) TS Deviation	(vi) Toxic Gas
		(ii) Degraded Condition	(vi) Rad Release
		(ii)(A) Unanalyzed Condition	(vi) Oth Hampering Safe Op.
EVENT CLASSIFICATIONS		(ii)(B) Outside Design Basis	4-Hr Non-Emergency 10CFR50.72(b)(2)
GENERAL EMERGENCY*		(ii)(C) Not Covered by OPs/EPs	(i) Degrade While S/D
SITE AREA EMERGENCY*		(iii) Earthquake	(ii) RPS Actuation (scram)
ALERT*		(iii) Flood	(ii) ESF Actuation
UNUSUAL EVENT		(iii) Hurricane	(iii)(A) Safe S/D Capability
50.72 NON-EMERGENCY		(iii) Ice/Hail	(iii)(B) RHR Capability
PHYSICAL SECURITY (73.71)		(iii) Lightning	(iii)(C) Control of Rad Release
TRANSPORTATION		(iii) Tornado	(iii)(D) Accident Mitigation
MATERIAL/EXPOSURE		(iii) Oth Natural Phenomenon	(iv)(A) Air Release > 2X App B
FITNESS FOR DUTY		(iv) ECCS Discharge to RCS	(iv)(B) Liq Release > 2X App B
OTHER		(v) Lost ENS	(v) Offsite Medical
		(v) Lost Other Assessment/Comms	(vi) Offsite Notification

*ERDS shall be activated as soon as possible but not later than one hour after declaring an Alert, Site Emergency or General Emergency.

DESCRIPTION

Include: Systems affected, actuations & their initiating signals, causes, effect of event on plant, actions taken or planned, etc.

③							
NOTIFICATIONS	YES	NO	WILL BE	ANYTHING UNUSUAL OR NOT UNDERSTOOD?	YES (Explain above)	NO	
NRC RESIDENT							
STATE(s)				DID ALL SYSTEMS FUNCTION AS REQUIRED?	YES	NO (Explain above)	
LOCAL							
OTHER GOV AGENCIES				MODE OF OPERATION CORRECTED:	ESTIMATED RESTART DATE:	ADDITIONAL INFO ON BACK? (YES/NO)	
MEDIA/PRESS RELEASE							

Figure GNP 11.4.4-1 (cont.)
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ADDITIONAL INFORMATION						
RADIOLOGICAL RELEASES: CHECK OR FILL IN APPLICABLE ITEMS (specific details/explanations should be covered in event description)						
LIQUID RELEASE	GASEOUS RELEASE	UNPLANNED RELEASE	PLANNED RELEASE	ONGOING	TERMINATED	
MONITORED	UNMONITORED	OFFSITE RELEASE	T.S. EXCEEDED	RM ALARMS	AREAS EVACUATED	
PERSONNEL EXPOSED OR CONTAMINATED		OFFSITE PROTECTIVE ACTIONS RECOMMENDED		*State release path in description		
	Release Rate (Ci/sec)	% T.S. LIMIT	HOO GUIDE	Total Activity (Ci)	% T.S. LIMIT	HOO GUIDE
Noble Gas			0.1 Ci/sec			1000 Ci
Iodine			10 uCi/sec			0.01 Ci
Particulate			1 uCi/sec			1 mCi
Liquid (excluding tritium & dissolved noble gases)			10 uCi/min			0.1 Ci
Liquid (tritium)			0.2 Ci/min			5 Ci
Total Activity						
	PLANT STACK	CONDENSER/AIR EJECTOR	MAIN STEAM LINE	SG BLOWDOWN	OTHER	
RAD MONITOR READINGS:		7				
ALARM SETPOINTS:						
% T.S. LIMIT (if applicable)						
RCS OR SG TUBE LEAKS: CHECK OR FILL IN APPLICABLE ITEMS: (specific details/explanations should be covered in event description)						
LOCATION OF THE LEAK (e.g., SG #, valve, pipe, etc):						
LEAK RATE:	UNITS: gpm/gpd	T.S. LIMITS:	SUDDEN OR LONG TERM DEVELOPMENT:			
LEAK START DATE:	TIME:	COOLANT ACTIVITY & UNITS: PRIMARY -		SECONDARY -		
LIST OF SAFETY-RELATED EQUIPMENT NOT OPERATIONAL:						
9						
EVENT DESCRIPTION (Continued from front)						

EVENT NOTIFICATION WORKSHEET			U.S. NUCLEAR REGULATORY COMMISSION OPERATIONS CENTER	
NOTIFICATION TIME	FACILITY OR ORGANIZATION KEWAUNEE	UNIT 1	CALLER'S NAME	CALL BACK # : ENS _____ or () _____
EVENT TIME & ZONE	EVENT DATE / /		NRC DUTY OFFICER	
POWER/MODE BEFORE	POWER/MODE AFTER			

		1-Hr Non-Emergency 10CFR50.72(b)(1)	(v) Emergency Siren INOP
		(i)(A) TS Required S/D	(vi) Fire
		(i)(B) TS Deviation	(vi) Toxic Gas
		(ii) Degraded Condition	(vi) Rad Release
		(ii)(A) Unanalyzed Condition	(vi) Oth Hampering Safe Op.
		(ii)(B) Outside Design Basis	
EVENT CLASSIFICATIONS		(ii)(C) Not Covered by OPs/EPs	4-Hr Non-Emergency 10CFR50.72(b)(2)
GENERAL EMERGENCY*		(iii) Earthquake	(i) Degrade While S/D
SITE AREA EMERGENCY*		(iii) Flood	(ii) RPS Actuation (scram)
ALERT*		(iii) Hurricane	(ii) ESF Actuation
UNUSUAL EVENT		(iii) Ice/Hail	(iii)(A) Safe S/D Capability
50.72 NON-EMERGENCY		(iii) Lightning	(iii)(B) RHR Capability
PHYSICAL SECURITY (73.71)		(iii) Tornado	(iii)(C) Control of Rad Release
TRANSPORTATION		(iii) Oth Natural Phenomenon	(iii)(D) Accident Mitigation
MATERIAL/EXPOSURE		(iv) ECCS Discharge to RCS	(iv)(A) Air Release > 2X App B
FITNESS FOR DUTY		(v) Lost ENS	(iv)(B) Liq Release > 2X App B
OTHER		(v) Lost Other Assessment/Comms	(v) Offsite Medical
			(vi) Offsite Notification

*ERDS shall be activated as soon as possible but not later than one hour after declaring an Alert, Site Emergency or General Emergency.

DESCRIPTION

Include: Systems affected, actuations & their initiating signals, causes, effect of event on plant, actions taken or planned, etc.

NOTIFICATIONS	YES	NO	WILL BE	ANYTHING UNUSUAL OR NOT UNDERSTOOD?	YES (Explain above)	NO	
NRC RESIDENT							
STATE(s)				DID ALL SYSTEMS FUNCTION AS REQUIRED?	YES	NO (Explain above)	
LOCAL							
OTHER GOV AGENCIES				MODE OF OPERATION UNTIL CORRECTED:	ESTIMATED RESTART DATE:	ADDITIONAL INFO ON BACK? <input type="checkbox"/> YES <input type="checkbox"/> NO	
MEDIA/PRESS RELEASE							

ADDITIONAL INFORMATION

RADIOLOGICAL RELEASES: CHECK OR FILL IN APPLICABLE ITEMS (specific details/explanations should be covered in event description)						
LIQUID RELEASE	GASEOUS RELEASE	UNPLANNED RELEASE	PLANNED RELEASE	ONGOING	TERMINATED	
MONITORED	UNMONITORED	OFFSITE RELEASE	T.S. EXCEEDED	RM ALARMS	AREAS EVACUATED	
PERSONNEL EXPOSED OR CONTAMINATED		OFFSITE PROTECTIVE ACTIONS RECOMMENDED		*State release path in description		
	Release Rate (Ci/sec)	% T.S. LIMIT	HOO GUIDE	Total Activity (Ci)	% T.S. LIMIT	HOO GUIDE
Noble Gas			0.1 Ci/sec			1000 Ci
Iodine			10 uCi/sec			0.01 Ci
Particulate			1 uCi/sec			1 mCi
Liquid (excluding tritium & dissolved noble gases)			10 uCi/min			0.1 Ci
Liquid (tritium)			0.2 Ci/min			5 Ci
Total Activity						
	PLANT STACK	CONDENSER/AIR EJECTOR	MAIN STEAM LINE	SG BLOWDOWN	OTHER	
RAD MONITOR READINGS:						
ALARM SETPOINTS:						
% T.S. LIMIT (if applicable)						
RCS OR SG TUBE LEAKS: CHECK OR FILL IN APPLICABLE ITEMS:				(specific details/explanations should be covered in event description)		
LOCATION OF THE LEAK (e.g., SG #, valve, pipe, etc):						
LEAK RATE:	UNITS: gpm/gpd	T.S. LIMITS:	SUDDEN OR LONG TERM DEVELOPMENT:			
LEAK START DATE:	TIME:	COOLANT ACTIVITY & UNITS: PRIMARY -		SECONDARY -		
LIST OF SAFETY-RELATED EQUIPMENT NOT OPERATIONAL:						
<p style="text-align: center;">EVENT DESCRIPTION (Continued from front)</p>						