Φ7-187-91

NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT NUCLEAR STATION

UNIT I & II OPERATIONS

01-LOT-006-343-1-01	Revision	4
02-LOT-006-343-2-00	Revision	1

TITLE: ADMINISTRATIVE PROCEDURE REVIEW

	SIGNATURE	DATE
PREPARER	Dawn Wandschneider	4/22/91
TRAINING AREA SUPERVISOR	Michael A. Klein for Whit	4/22/91 4/22/91
TRAINING SUPPORT SUPERVISOR	T.A. Peeling for J. McClair	4-22-91
PLANT SUPERVISOR/ USER GROUP SUPERVISOR UNIT 1 OPERATIONS		4/24/91
PLANT SUPERVISOR/ USER GROUP SUPERVISOR UNIT 2 OPERATIONS	for D. Terry	4/29/91

Summary of Pages

(Effective Date: 6/3/91)

Number of Pages: 45

Date	Pages
November 1990	1,3,4,6,9,12,13,15,18, 25,31
April 1991	2,5,7,8,10,11,14,16,17, 19-24,26-30,32-45

TRAINING DEPARTMENT RECORDS ADMINISTRATION ONLY:

VERIFICATION:

DATA ENTRY:

RECORDS:

5/3/306

5

ATTACHMENT 6
LESSON PLAN TEMPORARY/PUBLICATION/ADDENDUM CHANGE FORM

The attached change was made to:

Lesson plan title: Administrative Procedure Review

Lesson plan number: 01-LOT-006-343-1-01 Rev 4/02-LOT-006-343-2-00 Rev 1

Name of instructor initiating change: DAN HUNT

Reason for the change: TCO # 02-LOT-91-008 was written as part of the OEA Response to SER 15-90, SER 18-90 and SER 24-89 /SEN 061/OE3426 - This TCO provides control of testing with emphasis on conservatism in decisions. Appendix A Pg 2

Type of change:

1. Temporary change ____
2. Publication change ____
3. Addendum change ✓

Disposition:

✓ 1. Incorporate this change during the next scheduled revision.

____ 2. Begin revising the lesson plan immediately. Supervisor initiate the process.

____ 3. To be used one time only.

Approvals:

Instructor: [signature] /Date 6/12/91

Training Area Supervisor (or designee): Michael A. Meier / [signature] /Date 6/12/91

I. TRAINING DESCRIPTION

A. Title of Lesson: Administrative Procedure Review

B. Lesson Description: This is a generic lesson plan for the instruction of Administrative Procedures. The scope of the training is defined by the learning objectives. The objectives are specific, the body of the lesson plan can be adapted to any specific Administrative Procedure(s) and in general covers procedural requirements for a Licensed Operator.

C. Estimate of the Duration of the Lesson: Variable, generally 1/2-2 hours.

D. Method of Evaluation, Grade Format and Standard of Evaluation: Written exam, passing grade of 80% or greater.

E. Method and Setting of Instruction: Lecture to be conducted in the classroom via interactive lecture/discussion.

F. Prerequisites:

1. Instructor:
   a. Certified in accordance with NTP-16.
2. Trainee:
   a. Initial License Candidate — In accordance with the eligibility requirements of NTP-10.
   b. License Operator Requal — In accordance with the requirements of NTP-11.

G. References:

1. AP-1.0 Site Administrative Controls
2. AP-1.2 Composition/Responsibility of Station/Unit Organization
3. AP-2.0 Production and Control of Procedures
4. AP-3.6 Special Nuclear Material Control
5. AP-4.0 Administration of Operations
6. AP-4.2 Control of Equipment Mark-Ups
7. AP-5.0 Maintenance Program
8. AP-5.2.1 Surveillance Test and Inspection Program
9. AP-5.2.3 Preventive Maintenance Program

10. AP-5.2.4 Post Maintenance Testing Requirements
11. AP-5.2.5 Work In Progress (WIP)
12. AP-5.4 Conduct of Maintenance
13. AP-5.4.1 Station Housekeeping and Inspections
14. AP-5.4.2 Troubleshooting
15. AP-5.5 Work Control
16. AP-5.5.1 Work Request
17. AP-5.5.2 Deficiency Tagging System
18. AP-6.0 Procedure for Modification
19. AP-6.1 Control of Equipment Temporary Modifications
20. AP-6.6.1 Procedure for Modifications and Additions - Unit 2
21. AP-6.2 Procedure for Minor Modifications
22. AP-6.3 Plant System Layup Control Program
23. AP-6.5 Control of testing |4,1
24. AP-8.3 Inservice Inspection and Testing Program
25. AP-9.1 Site Task Qualification Program
26. AP-10.2.1 Operating & Routine Reports & Responses to NRC Requests
27. AP-10.2.2 Reportable Occurrences
28. AP-10.2.3 Lessons Learned Program
29 AP-10.2.4 Licensee Event Report

II. REQUIREMENTS

A. AP-9, Administration of Training
B. NTP-10, Training of Licensed Operator Candidates

III. TRAINING MATERIALS

A. Instructor Materials:
1. Classroom
2. AP Generic Lesson Plan
3. TR
4. Transparency Package

5. Overhead Projector
6. Appropriate AP's that will be covered
7. Trainee course evaluation

B. Trainee Materials:
1. Appropriate AP's that will be covered
2. Appropriate AP objectives

IV. EXAMS AND MASTER ANSWER KEYS

A. Exams will be generated and administered as necessary.

B. Exams and Master Answer Keys will be on permanent file in the Records Room.

V. LEARNING OBJECTIVES

A. Each Administrative Procedure will have specific objectives to be covered during the course of the lecture.

A. Terminal Objectives:

TO-1.0 Demonstrate compliance with Administrative Procedures established to provide site personnel an overview of administrative controls which have been established to ensure safe, efficient, and reliable operation of Nine Mile Nuclear Station.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Administrative Controls
b. Conditions Adverse to Quality
c. Independent Verification
d. Nonconformance
e. Operating Activities
f. Quality Assurance
g. Quality Assurance Records
h. Quality Control
i. Quality Related
j. Safety Related
k. Skill-of-the-craft
l. Technical Specifications
m. Terms Denoting Degree of Action (Shall, Should, May, Will)

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 Identify the NMPC organizations whose functions are NOT within the scope of Administrative Procedures.

EO-4.0 Identify the procedure that establishes controls for preparing, reviewing, changing, or approving procedures.

EO-5.0 Identify the person responsible to ensure the adequacy and proper use of procedure.

EO-6.0 Describe the programs established by NMPC in order to provide assurance of safety.

EO-7.0 Given a list of the Administrative Procedures, and a subject, determine the AP that likely discusses that subject.

EO-8.0 Describe the hierarchy of documents used at NMPNS, and the necessary relationship between higher and lower tier documents.

C. Objective relationships to NMP Unit 1 task analysis

TO-1.0 Demonstrate compliance with Administrative Procedures established to provide site personnel an overview of administrative controls which have been established to ensure safe, efficient, and reliable operation of NMPNS.

SRO Tasks:

3410130303 Review a completed checkoff list following a plant evolution I.A.W. AP-1.0 and AP-4.0.

D. Objective relationships to NMP Unit 2 task analysis.

TO-1.0 Demonstrate compliance with Administrative Procedures established to provide site personnel an overview of administrative controls which have established to ensure safe, efficient, and reliable operation of NMPNS.

SRO Tasks:

3410380303 Ensure compliance with Administrative Procedures.

V. LEARNING OBJECTIVES: AP-1.2 Compliance and Responsibility of Station/Unit Organization |4,1

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will have gained the knowledge necessary to help ensure the safe and efficient operation, maintenance, and test of NMPNS through compliance with AP-1.2 Composition and Responsibility of Station/Unit organization.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Site

b. Station

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 Using the Station/Unit organization charts attached to the AP, describe the Station/Unit organization.

EO-4.0 Describe the general responsibilities of managers or supervisors and all other personnel.

EO-5.0 Describe the method for delegating responsibility and authority.

C. Objective relationships to NMP Unit 2 task analysis.

TO-1.0 Demonstrate compliance with Administrative Procedures established to provide site personnel an overview of administrative controls which have been established to ensure safe, efficient, and reliable operation of NMPNS.

SRO Tasks:

3410380303 Ensure compliance with Administrative Procedures.

A. Terminal Objective:

TO-1.0 Upon completion of this lesson, the trainee will be able to apply and understand the controls of AP-2.0 Production and Control of Procedures in support of plant operation and administration.

B. Enabling Objectives:

EO-1.0 Define the following terms as they apply to procedures:

a. Original
b. Master Copy
c. Satellite Master Copy
d. Controlled Working Copy
e. Controlled
f. Uncontrolled Procedures

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 State who may be assigned the responsibility to write procedures.

EO-4.0 Explain the duration, content, review and general approvals required for temporary procedures.

EO-5.0 List the types of procedures that cannot be changed (excluding publication errors) by temporary procedures.

EO-6.0 Explain the circumstances when a temporary change would be initiated, and the conditions/restrictions required for change approval.

EO-7.0 Explain the different types of temporary changes.

EO-8.0 State when procedure reviews might be originated.

C. Objective relationships to NMP Unit 1 task analysis.

TO-1.0 Using the procedure as a guide, be able to complete all forms necessary to effect all actions or define the method for effecting actions associated with a procedural change including initiating, clearing, and performing procedural changes.

SRO Tasks:

3430110303 Write temporary changes to procedures I.A.W. AP-2.0.

3430120303 Approve temporary changes to procedures I.A.W. AP-2.0.

D. Objective relationships to NMP Unit 2 task analysis.

TO-1.0 Using the procedure as a guide, be able to complete all forms necessary to effect all actions or define the method for effecting actions associated with a procedural change including initiating, clearing, and performing procedural changes.

RO Tasks:

2999200101 Prepare a temporary change to an operating procedure.

SRO Tasks:

3410670303 Review and approve temporary changes.

3410680303 Conduct procedural change review.

3430110303 Write temporary procedures (procedural changes).

3430120303 Approve a temporary change to a procedure.

3439010303 Write/rewrite OP's, ST's, ODI's, and Standing Orders.

A. Terminal Objective:

TO-1.0 Upon completion of this lesson, the trainee will have gained the knowledge to understand the procedures for control, accountability, and safe handling of special nuclear material.

B. Enabling Objective:

EO-1.0 Define the following terms:

a. Source Material

b. Special Nuclear Material

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 List the places within the plant where SNM can be stored.

EO-4.0 List some applications/uses of SNM in the plant.

EO-5.0 State the person who has the responsibility to maintain the fuel status tag boards up to date.

EO-6.0 List some of the ways that SNM inventories can change.

EO-7.0 Describe how SNM physical accountability is tracked within the plant.

V. LEARNING OBJECTIVES: AP-4.0 Administration of Operations

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will have gained the knowledge necessary to understand and apply AP-4.0 in support of plant operations and administration.

B. Enabling Objectives:

EO-1.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-2.0 State the purpose of AP-4.0 Administration of Operations.

EO-3.0 State when N/A or N/R may be used.

EO-4.0 State when deviation from approved procedure is allowed.

EO-5.0 State when it is permissible for the CSO to be momentarily absent from the defined surveillance area.

EO-6.0 List the individuals who have the authority and responsibility to shut down the reactor and state when this action should be taken.

EO-7.0 State who has the authority to authorize restart of the reactor after an unscheduled shutdown.

EO-8.0 Given a component that is suspected to be out of the expected position, state the discoverer's responsibility.

EO-9.0 State what must be done to allow operation of a system in a mode not covered by a procedure.

EO-10.0 Define the boundaries of "being in the Control Room" for the SSS and ASSS.

EO-11.0 State the responsibilities of "on duty" personnel concerning key control.

EO-12.0 List the types of entries which are to be made in the Control Room log book and SSS log book.

EO-13.0 State which type of items are recorded in the Equipment Status Log.

EO-14.0 List the documents that are required to be in the Control Room.

EO-15.0 State when the Operations "On Call" Supervisor shall be called.

EO-16.0 State the criteria by which the Station Superintendent will use for determining the acceptability for restart after an unscheduled shutdown.

EO-17.0 State the 5 classes of events which are described in the Site Emergency Plan.

C. Objective relationships to NMP Unit 1 task analysis.

TO-1.0 Using the procedure as a guide, be able to conduct and administer shift operations in accordance with established operations guidelines.

RO Tasks:

2990060301 Maintain required logs, records, charts, printouts and status boards I.A.W. AP-4.0.

SRO Tasks:

3410130303 Review a completed checkoff list following a plant evolution I.A.W. AP-1.0 and AP-4.0.

3410020303 Maintain required logs, records and status boards I.A.W. AP-4.0.

3410220303 Authorize reset of an engineered safeguards feature I.A.W. AP-4.0.

3410400303 Authorize termination of engineered safety features functions I.A.W. AP-4.0.

3410410303 Authorize bypass of engineered safety feature functions I.A.W. AP-4.0 and EOPs.

3410440303 Conduct Refuel Shift Supervisor shift turnover I.A.W. AP-4.0.

3419100103 Direct removal of system from service after auto actuation I.A.W. AP-4.0.

3419120103	Direct Shift personnel actions during major plant evolutions I.A.W. AP-4.0.
3410260303	Monitor functions in the Control Room I.A.W. AP-4.0.
3410260303	Conduct general inspections as part of shift duties I.A.W. AP-4.0.
3430020303	Authorize overtime for operations personnel I.A.W. AP-4.0.
3440390303	Ensure required notifications of on-site and off-site personnel for off normal events are performed I.A.W. AP-4.0 and EPP-20.

D. Objective relationships to NMP Unit 2 task analysis.

TO-1.0 Using the procedure as a guide, be able to conduct and administer shift operations in accordance with established operations guidelines.

SRO Tasks:

3410010303	Conduct shift relief and turnover.
3410020303	Maintain required logs, records, and status boards.
3410100303	Review the operating logs for trends and out of specifications conditions.
3410370303	Maintain a valid SRO license.
3419240303	Complete a weekly tour report.
3439130303	Maintain the equipment status log.
3430040303	Direct shift personnel assignments.
3430050303	Authorize overtime for operating personnel.
3430060303	Ensure minimum shift manning is met.
3430160303	Write operating reports.
3430170303	Prepare the unit morning report.
3439020303	Review the operator log.

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will gain the knowledge to comply with Administrative Procedure AP-4.2 Control of Equipment Markups to establish administrative controls for equipment markups and to maintain personal and reactor safety by preventing unauthorized or unsafe operation.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Blue Markup
b. Controller
c. Hold-out
d. Mark-clear
e. Markup
f. Markup Person
g. Protective Position
h. Qualified Individual
i. Red Markup
j. Walkdown of Markups

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 State the individual who is responsible to determine the impact on Tech Specs, USAR, and other administrative conditions.

EO-4.0 State the actions performed by the SSS if a system, structure, or component identified in Tech Specs is to be made inoperable due to a markup.

EO-5.0 State the actions performed by the SSS if a system, structure, or component identified in Tech Specs is to be returned to service.

EO-6.0 State the qualifications required for a person to perform an independent verification of markups of equipment covered by Tech Specs or safety related.

EO-7.0 State the circumstances when an independent verification of a component may be waived.

EO-8.0 State what precautions are required in an area protected by automatic or remote CO_2 or Halon Fire Protection Systems.

EO-9.0 State the purpose of a markup or a holdout.

C. Objective relationships to NMP Unit 1 task analysis.

TO-1.0 Using the procedure as a guide, be able to perform the actions necessary to support markups and holdouts including initiating, performing, and verifying the appropriate markup/holdout.

RO Tasks:

2990120301 Prepare switching orders (in plant or yard) I.A.W. AP-4.2.

SRO:

3420030303 Approve requests to remove plant equipment from operation I.A.W. AP-4.2.

D. Objective relationships to NMP Unit 2 task analysis.

TO-1.0 Using the procedure as a guide, be able to perform the actions necessary to support markups and holdouts including initiating, performing, and verifying the appropriate markup/holdout.

RO Tasks:

2999240301 Perform markup verification.

SRO Tasks:

3420040303 Authorize tagging removal/restoration requests for plant equipment.

3420050303 Authorize hanging and clearing of tags on plant equipment.

3430400303 Ensure periodic auditing of tagging.

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will gain the knowledge to comply with the guidelines of AP-5.0 Maintenance Program to ensure station systems, structures, and components and maintained and available to perform their intended functions.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Corrective Maintenance
b. Maintenance
c. Maintenance Activities
d. Preventative Maintenance (Predictive)
e. Preventative Maintenance (Periodic)
f. Preventative Maintenance (Planned)
g. Surveillance
h. Trending

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

C. Objective relationships to NMP Unit 1 task analysis.

TO-1.0 Using the procedure as a guide, be able to perform the actions necessary to prepare and review, work requests, determine restart requirements, and review restart results.

3420040303 Prepare maintenance work requests I.A.W. AP-5.0.
3420050303 Review maintenance work requests I.A.W. AP-5.0.
3420070303 Determine retest requirements following maintenance I.A.W. AP-5.0 and Technical Specifications.
3420140303 Review retest results following maintenance I.A.W. AP-5.0.

V. LEARNING OBJECTIVES: AP-5.2.1 Surveillance Test and Inspection Program

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will gain the knowledge to comply with the requirements of AP-5.2.1 Surveillance Test and Inspection Program to ensure station systems, structures, and components specified in Tech Specs will perform as intended when required.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Best Test Date
b. Frequency Notation
c. Late Test Date
d. Overdue
e. Past Due
f. Surveillance
g. Test Deficiency

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 State the reasons for and the authorization for the 15% and 25% extensions of the surveillance intervals.

EO-4.0 State whose approvals are necessary to authorize extensions of the Best Test Date.

EO-5.0 State the SSS actions upon being notified that surveillance requirements can NOT be met.

EO-6.0 State the responsibilities of a person assigned to perform a surveillance activity.

EO-7.0 State the SSS responsibility upon being notified that unacceptable surveillance test results or equipment deficiencies are noted.

EO-8.0 State what actions must be taken if the surveillance test conditions do not exist when the surveillance as scheduled.

EO-9.0 State the actions required if during the performance of a surveillance test a step cannot be completed or and expected result does not occur.

EO-10.0 State under what conditions that a portion of a test that can NOT be performed or that fails to meet the acceptance criteria may be accepted for Tech Spec credit.

EO-11.0 State the conditions that must exist such that if a surveillance test is started and can NOT be completed, it can be called a "no-test".

C. Objective relationships to NMP Unit 1 task analysis.

TO-1.0 Using the procedure as a guide, be able to perform the actions necessary to support surveillance testing and inspection, including the possible contingencies of the testing.

SRO Tasks:

3420260303 Review results of surveillance tests to ensure compliance with specification/criteria I.A.W. AP-5.2.1.

D. Objective relationships to NMP Unit 2 task analysis.

TO-1.0 Using the procedure as a guide, be able to perform the actions necessary to support surveillance testing and inspection, including the possible contingencies of the testing.

SRO Tasks:

3419190103 Review surveillance test results to ensure compliance with specifications.

3420230303 Determine priority of surveillance tests assigned for the shift.

3420240303 Authorize performance of surveillance tests on shift.

3420280303 Coordinate support from operations and other departments for required testing.

3420290303 Compare the unit log for surveillance test completion dates against scheduled completion dates.

3429050303 Authorize surveillance tests by other departments.

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will be able to comply with the requirements of AP-5.2.3 Preventative Maintenance Program to ensure the station equipment is in a condition so that systems essential to the safe and reliable operation of the plant will perform as intended when required, to reduce the cost and frequency of corrective maintenance, and to ensure preventative maintenance and equipment servicing activities are documented as preventative maintenance.

B. Enabling Objectives:

EO-1.0 Define Regulatory Maintenance.

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 State the items that should be documented when performing PM's that require monitoring of inservice equipment, if possible.

C. Objective relationships to NMP Unit 2 task analysis.

TO-1.0 Using the procedure as a guide, be able to support the actions necessary for the Preventative maintenance program, including possible contingencies.

SRO Tasks:

3420110303 Monitor conduct of Operations Preventative Maintenance.

A. Terminal Objective:

TO-1.0 Upon completion of this lesson, the trainee will be able to comply with the requirements of AP-5.2.4 Post-Maintenance Testing Requirements to ensure systems, components, and structures function as designed upon completion of maintenance activities.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Component
b. Maintenance Work Release
c. Mandatory PMT
d. PMT Deficiency
e. Post-Maintenance Testing (PMT)

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 Given procedure AP-5.2.4 Post Maintenance Testing Requirements with attachment, the applicable Tech Specs, and a description of a repaired component, determine what PMT is required/recommended.

EO-4.0 State the plant conditions that are recommended for PMT.

C. Objective relationships to NMP Unit 2 task analysis.

TO-1.0 Using the procedure as a guide, be able to support the actions necessary for post-maintenance testing including the determination of what is required/recommended.

SRO Tasks:

3420130303 Determine retest requirements following maintenance.

3420150303 Verify post-maintenance operability of safety related equipment.

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will be able to comply with the requirements of AP-5.2.5 Work In Progress, to ensure that the CSO and SSS are aware of all plant impacts and post-maintenance testing associated with work being performed which affects the operability of the plant.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Duration
b. Equipment Impact
c. Plant Impact

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 State the required actions of the maintenance individual when the duration of the work exceeds the estimated duration.

EO-4.0 State which documents the WIP forms should be attached to.

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will be able to comply with the requirements of AP-5.4 Conduct of Maintenance to ensure:

a. Responsibilities and requirements for personal performing maintenance activities are identified and defined.

b. Pre-work briefing are conducted before performing maintenance activities.

c. Post-work critiques are conducted, when required, to document problems encountered during maintenance activities and to provide recommendations for improvement.

B. Enabling Objectives:

EO-1.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-2.0 State what restrictions are applicable for each of the 5 zones of work area.

EO-3.0 State the individual responsibilities if a maintenance activity cannot be completed as planned.

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will be able to comply with the requirements of AP-5.4.1 Station Housekeeping and Inspections to provide guidelines for station housekeeping practices and provide for inspection tours of the station to identify and correct housekeeping deficiencies.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Accessible Zones

b. Fire Break Zones

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 State the responsible person for submitting material condition deficiencies.

EO-4.0 Given the list of General Housekeeping Practices, state which practices would be applied to a given situation.

EO-5.0 Given a housekeeping deficiency and AP-5.4.1, complete a housekeeping action form.

A. Terminal Objectives:

TO-1.0 Using procedure AP-5.4.2 Troubleshooting, the trainee will gain the knowledge to ensure proper control of alterations to systems or components to prevent inadvertent activation of safety systems and inadvertent plant shutdowns, activities are properly performed.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Change Document
b. Controlled Drawing
c. Repair
d. Troubleshooting
e. Use-As-Is

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 List the 3 responsibilities of the troubleshooter.

EO-4.0 Given a list of troubleshooting activities, choose the activities that are performed by the work control center.

EO-5.0 State the relationship between a Work Request and a troubleshooting plan.

EO-6.0 State what actions are required to deviate from the troubleshooting plan.

EO-7.0 State what actions are required when the problem is identified.

EO-8.0 State the responsibilities of the troubleshooter at the completion of troubleshooting.

C. Objective relationships to NMP Unit2 task analysis.

TO-1.0 Using the procedure as a guide, be able to support the actions necessary to troubleshoot plant equipment, components, or structures.

SRO Tasks:

3410220303 Approve troubleshooting of safety related and Tech Spec equipment.

3420220303 Provide technical assistance in Troubleshooting System malfunctions.

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will be able to comply with AP-5.5 Work Control to ensure that the responsibilities for planning, staging, scheduling, tracking, and close-out of work activities are properly performed.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Lead Department
b. Maintenance Work Package
c. Support Department

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 State who is allowed to perform the technical review of a Work Request.

EO-4.0 State how the work for a forced outage is tracked and scheduled.

EO-5.0 Given procedure AP-5.5, state which steps would be required if a job requires <u>immediate</u> attention during <u>non-working</u> hours.

EO-6.0 Given procedure AP-5.5, state which steps would be required if a job is deemed an emergency situation.

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will be able to comply with the requirements of AP-5.5.1 Work Request to document maintenance activities performed at NMPNS.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Corrective Maintenance
b. Power Block Equipment
c. Repair
d. Rework

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 State what activity is performed if the craftsman performing a work activity states that the cause of the failure of the component cannot be determined.

EO-4.0 Given that the SSS has authorized work to be performed in an emergency situation without the prior staging of a Work Request, state the conditions the SSS must make sure took place in conjunction with the Work Request.

C. Objective relationships to NMP Unit 2 task analysis.

TO-1.0 Using the procedure as a guide, be able to support the actions necessary to track the work activities via a Work Request to verify the plant equipment, components, or structures are properly maintained.

SRO Tasks:

3420070303 Review Maintenance Work Requests up to and including final signoff.

V. LEARNING OBJECTIVES: AP-5.5.2 Deficiency Tagging System

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will be able to comply with the requirements of AP-5.5.2 Deficiency Tagging System to effectively identify and clearly mark station equipment, component, or structural deficiencies for corrective action.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Deficiencies
b. Deficiency Sticker
c. Deficiency Tag

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 List the areas for in the unit that are excluded from the scope of the Deficiency Tagging System.

EO-4.0 Describe how the Work Request ensures that the Deficiency Tag or sticker is ultimately removed.

EO-5.0 State how maintenance knows that they are working on the correct deficiency.

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will be able to comply with the requirements of A-6.0 Station Modification Program to ensure that the mechanisms for control of major modifications or additions are followed.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Modification
b. Major Modification
c. Minor Modification
d. Temporary Modification
e. Safety Evaluation
f. Critical Drawings
g. Simple Configuration Change

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 Given procedure AP-6.0 Station Modification Program, determine if a given activity is excluded from the procedure.

C. Objective relationships to NMP Unit 2 task analysis.

TO-1.0 Using the procedure as a guide complete all forms necessary and effect all actions or define the method for effecting actions associated with modifications including initiating, clearing, and performing reviews.

SRO Tasks:

3430230303 Write design change documents for plant modifications.

V. LEARNING OBJECTIVES: AP-6.1 Control of Equipment Temporary Modifications

A. Terminal Objectives:

TO-1.0 Using procedure AP-6.1 Control of Equipment Temporary Modifications the trainee will gain the knowledge to complete all forms necessary and effect actions associated with equipment temporary modifications including initiating, clearing, and performing periodic reviews.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Defeated Annunciator
b. Out-of-Service Equipment
c. Long Standing Temporary Modification
d. Safety Evaluation
e. Safety Review
f. Technical Review
g. Temporary Modification
h. Temporary Modification File
i. Temporary Modification Log
j. Temporary Modification Tag
k. Trouble Shooting

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 Given AP-6.1, describe the procedure for initiating a temporary modification.

EO-4.0 Given AP-6.1, describe the procedure for clearing temporary modification.

EO-5.0 Given AP-6.1, describe the procedures for temporary modifications in emergency situations.

EO-6.0 State the storage locations for controlled jumpers.

EO-7.0 Given AP-6.1, state the procedure for controlled lifted leads and jumpers.

EO-8.0 Given AP-6.1, describe the procedure for defeating annunciators.

EO-9.0 Given AP-6.1, describe the review process for temporary modifications.

C. Objective relationships to NMP Unit 1 task analysis.

TO-1.0 Using the procedure as a guide complete all forms necessary and effect all actions or define the method for effecting actions associated with equipment temporary modifications including initiating, clearing, and performing reviews.

SRO Tasks:

3410100303 Approve temporary modifications placement/removal I.A.W. AP-6.1

3430190303 Conduct periodic audit of temporary modifications log I.A.W. AP-6.1.

D. Objective relationships to NMP Unit 2 task analysis.

TO-1.0 Using the procedure as a guide complete all forms necessary and effect all actions or define the method for effecting actions associated with equipment temporary modifications including initiating, clearing, and performing reviews.

RO Tasks:

2999210301 Prepare a temporary modification document.

2999220301 Approve a request to install jumpers/lifted leads.

2999230403 Perform the actions required to defeat an annunciator.

SRO Tasks:

3410110303 Approve jumper and leads removal/replacement.

3430230303 Write design change requests for plant modifications.

3430310303 Conduct periodic audits of temporary modifications.

3439030303 Review temporary modifications for correctness, compliance with requirements, and approve.

V. LEARNING OBJECTIVES: AP-6.1.1 Procedure for Modification and Addition - Unit 2 |4,1

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will be able to comply with the mechanisms for the initiation and control of, replacements, additions or modifications (permanent or temporary) of plant equipment as set forth in AP-6.1.1 Procedure for Modifications and Addition - Unit 2.

B. Enabling Objectives:

EO-1.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-2.0 Given AP-6.1.1, state the conditions that must exist to have exception to the procedure.

EO-3.0 State when a safety evaluation is required, and the regulations which require it.

[٢,٨]

V. LEARNING OBJECTIVES: AP-6.2 Procedure for Minor Modifications |4,1

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will be able to comply with the requirements of AP-6.2 Procedure for Minor Modifications.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Minor Modifications

b. Design Authority

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 Given AP-6.2, state the exception to the procedure.

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will be able to comply with the requirements of AP-6.3 Plant System Layup Control Program to ensure that the responsibilities for the proper preservation of systems, components, or structures are properly performed.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Component
b. Extended Outage/Downtime
c. Layup
d. Process System

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 List the debilitating phenomenon that proper layup will minimize.

V. LEARNING OBJECTIVES: AP-6.5 Control of Testing |4,1

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, given a copy of AP-6.5, the trainee will be able to understand the controls of AP-6.5 Control of Testing to a depth sufficient to ensure all testing done for which the trainee has jurisdiction will be carried out in accordance with this procedure.

B. Enabling Objectives:

EO-1.0 Define the following terms as they apply to AP-6.5:

a. Acceptance Criteria
b. Exceptions
c. Modification Functional Test
d. Special Testing
e. Testing
f. Test Abort
g. Test Hold
h. Test Log
i. Test Package

EO-2.0 State the responsibilities of the following:

a. Manager Technical Support
b. Test Director
c. Station Shift Supervisor (SSS)
d. Procedure Writers

EO-3.0 State the purpose of the pre-test briefing.

EO-4.0 State who must give permission to commence a test if site impact will be affected.

EO-5.0 List four conditions that shall cause a test to be aborted.

EO-6.0 List the conditions that shall cause a test to be placed on hold.

EO-7.0 State the actions of the SSS in the event that a test is aborted.

EO-8.0 Distinguish the difference between the Level I and Level II acceptance criteria. |4,1

EO-9.0 State the actions required for exceptions to Level I and Level II tests.

EO-10.0 State who is responsible to approve any proposed resolution to a test exception.

EO-11.0 State the procedure for the shift turnover for Ongoing Special Tests.

EO-12.0 State who has the responsibility for the completion of the Test Review and Acceptance Form.

EO-13.0 State the responsibility of SORC for Special Tests.

EO-14.0 State the responsibility of SRAB for Special Tests.

C. Objective relationships to NMP Unit 2 task analysis.

TO-1.0 Using the procedure as a guide, be able to coordinate support from Operations and other departments for required testing.

SRO TASK

3420280303 Coordinate support from Operation and other departments for required testing.

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will be able to comply with the requirements of AP-8.3 inservice inspection and testing program to ensure the operational readiness and structural integrity requirements of the plant are met.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Examination
b. Test
c. Flaw indication

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

C. Objective relationships to NMP Unit 2 task analysis

TO-1.0 Demonstrate compliance with administrative procedures established to provide operations personnel an overview of administrative controls which have been established to coordinate and implement an inservice and inspection testing program.

RO Tasks:

2980200201 Assist in the inservice inspection of pumps.
2980210201 Assist in the inservice inspection of valves.

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will be able to comply with the requirements of AP-9.1 Site Task Qualification Program to recognize and complete the requirements necessary to become task qualified/duty area qualified to operate and maintain the station.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Certified Person
b. Contractor
c. Duty Area Qualified
d. Instructor
e. Job Performance Measure (JPM)
f. On-the-Job Evaluation (OJE)
g. On-the-Job Evaluator
h. On-the-Job Trainer
i. Qualified Person
j. Task/Duty Area Qualification Record
k. Task Evaluation Standard
l. Task Qualified

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 Given AP-9.1, list the items the OJT trainer must do during an OJT training session.

EO-4.0 Given AP-9.1, list the items the OJT evaluator must do during an OJE session.

V. LEARNING OBJECTIVES: AP-10.2.1 Operating and Routine Reports and Responses to NRC Requests |4,1

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will be able to comply with the requirements of AP-10.2.1 that establishes the responsibilities and methods used for production, distribution, and maintenance of operating reports and responses to NRC requests.

B. Enabling Objectives:

EO-1.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-2.0 Given AP-10.2.1 Operating and Routine Reports and Responses to NRC Requests, state which reports are covered in AP.

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will be able to comply with the requirements of AP-10.2.2 Occurrence Reporting to ensure that the responsibilities for notification occur in a timely manner to the appropriate departments of reportable, potentially reportable, or significant non-reportable events and conditions that occur at NMPNS in order to meet the reporting requirements of Tech Specs and federal regulations.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Condition
b. Event
c. License Event Report
d. Reportable Occurrence
e. Non-Reportable Occurrence
f. Special Report

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 State the purpose of AP-10.2.2.

EO-4.0 State the type of events or conditions that are exempt from AP-10.2.2.

EO-5.0 Describe how an Occurrence Report is initiated.

EO-6.0 Describe the disposition and uses of reports after SSS/ASSS review is complete.

C. Objective relationships to NMP Unit 1 task analysis.

TO-1.0 Using the procedure as a guide complete all forms necessary and effect all actions or define the method for effecting actions associated with occurrence reporting.

SRO Tasks:

3410110303 Report safety limit violations and reportable occurrences I.A.W. AP-10.2.2 and Technical Specifications.

D. Objective relationships to NMP Unit 2 task analysis.

TO-1.0 Using the procedure as a guide complete all forms necessary and effect all actions or define the method for effecting actions associated with occurrence reporting.

SRO Tasks:

3410130303 Prepare occurrence report.

3429050303 Review out of specification test results reports, non-conformance reports, deviations reports, etc.

3439060303 Perform a review of occurrence report.

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will be able to comply with the requirements of AP-10.2.3 Lessons Learned Program to ensure Niagara Mohawk and contracted personnel are provided with a learning experience from a problem or event through the issuance of a lessons learned transmittal and to minimize the recurrence of similar or related events.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Affected Department/Organization
b. Lessons Learned Transmittal
c. Source Document

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 Given AP-10.2.3, list possible source documents for lesson learned transmittals.

A. Terminal Objectives:

TO-1.0 Upon completion of this lesson, the trainee will be able to comply with the requirements of AP-10.2.4 Licensee Event Report to provide guidance for generation of LERs, ensuring accurate development and timely submittal.

B. Enabling Objectives:

EO-1.0 Define the following terms:

a. Condition
b. Licensee Event Report
c. Reportable Event
d. Supplemental SER

EO-2.0 From a list of responsibilities, choose the responsibilities for the level of license to be obtained.

EO-3.0 Given the NRC wanting additional information about an existing LER, state how this additional information would be provided.

EO-4.0 State whose signature is on an LER.

VI. LESSON CONTENT

LESSON CONTENT	DELIVERY NOTES	NOTES/ OBJECTIVES
I. INTRODUCTION		
A. Greet Class		
B. Have TR Signed	• Pass TR to students	
C. State Lesson Title (AP to be covered)	• Pass AP copies to class	
D. Explain Scope of Lesson	• Discuss method of evaluation with students.	
E. Review Objectives of Applicable AP	• Students have objectives of AP to be covered.	
F. Topic Lead-In	• LERs/SOERs/Occurrences may be used for lead-in.	
II. LESSON - PRESENTATION OF CONTENT		
A. Purpose		
1. State the purpose of the AP.	• Justify/present circumstances that brought about creating of procedure.	
B. Scope		
1. Describe the applicability of AP.	• AP applies to students	Obj. #
2. State the objective of the AP.	• Evoke from students how AP applies to their jobs.	
C. Reference and Comments	• References rarely used as instructional material, but should be pointed out.	Obj. #
1. Refer students to references and commitments listed in procedures.		
2. Emphasize references/commitments as necessary to support objectives/add interest.	• A link can often be made between NRC/INPO documents and APs.	
3. Check Appendix A for commitments and/or suggestions.	• Commitments tied to LP listed in Appendix A.	

LESSON CONTENT	DELIVERY NOTES	NOTES/ OBJECTIVES
D. Definitions		
1. Definitions can play a critical part in the understanding of AP.	Review objectives carefully.	Obj. #'s
2. Definitions can vary between APs, so be careful, and give students heads-up as appropriate.		
E. Responsibilities	• Review responsibilities: SSS, ASSS, CSO, "E"	Obj. #'s
1. Responsibilities define who is responsible for what actions.	• Review responsibilities of others as necessary to satisfy objectives of AP.	
F. Procedure	• This section is the heart and soul of the AP.	Obj. #'s
1. Defines the actions that will be taken by the responsible parties.	• This is what the AP is trying to accomplish.	
G. Attachments	• APs have attachments • Attachments discussed here.	Obj. #'s
III. WRAP UP		
A. Review Objectives	• Re-cover objectives, ensuring objectives covered to students satisfaction. • Instructor conduct review as question/ answer session or less formal manner.	Obj. review.
B. Check for Student Questions	Answer student's questions now, or write questions down, respond later.	
C. Ensure TR is Completed and Returned	Quickly review the TR to insure all the students present have completed it.	
D. Solicit Trainee Course Evaluation Forms	Add course evaluation forms.	

The following is a list of the APs that this lesson plan covers. Any commitments or suggestions that are applicable to an AP by the LOT section will be identified here.

1. AP-1.0 Site Administrative Controls
2. AP-1.2 Composition/Responsibility of Station/Unit Organization
3. AP-2.0 Product and Control of Procedures
4. AP-3.6 Special Nuclear Material Control
5. AP-4.0 Administration of Operations
6. AP-4.2 Control of Equipment Mark-Ups
7. AP-5.0 Maintenance Program
8. AP-5.2.1 Surveillance Test and Inspection Program
9. AP-5.2.3 Preventive Maintenance Program
10. AP-5.2.4 Post Maintenance Testing Requirements
11. AP-5.2.5 Work in Progress (WIP)
12. AP-5.4 Conduct of Maintenance
13. AP-5.4.1 Station Housekeeping and Inspections
14. AP-5.4.2 Troubleshooting
15. AP-5.5 Work Control
16. AP-5.5.1 Work Request
17. AP-5.5.2 Deficiency Tagging System
18. AP-6.0 Procedure for Modification
19. AP-6.1 Control of Equipment Temporary Modifications

    Optional:

    a. LER 84-016 Attachment 1
    b. LER 88-007 Attachment 2 Rev. 01
    c. LER 83-062 Attachment 3 Rev. 01
    d. LER 88-025 Attachment 4
    e. LER 88-004 Attachment 5

20. AP-6.6.1 Procedure for Modifications and Additions - Unit 2
21. AP-6.2 Procedure for Minor Modifications
22. AP-6.3 Plant System Layup Control Program
23. AP-6.5 Control of testing
    a. SER 15-90 Attachment 6
    b. SER 18-90 Attachment 7
    c. SER 24-89/SEN 061/OE 3426 Attachment 8

4,1 added changes 6/12

24. AP-8.3 Inservice Inspection and Testing Program
25. AP-9.1 Site Task Qualification Program
26. AP-10.2.1 Operating & Routine Reports & Responses to NRC Requests
27. AP-10.2.2 Reportable Occurrences
28. AP-10.2.3 Lessons Learned Program
29. AP-10.2.4 Licensee Event Report

20. AP-6.6.1 Procedure for Modifications and Additions - Unit 2
21. AP-6.2 Procedure for Minor Modifications
22. AP-6.3 Plant System Layup Control Program
23. AP-6.5 Control of testing |4,1
24. AP-8.3 Inservice Inspection and Testing Program
25. AP-9.1 Site Task Qualification Program
26. AP-10.2.1 Operating & Routine Reports & Responses to NRC Requests
27. AP-10.2.2 Reportable Occurrences
28. AP-10.2.3 Lessons Learned Program
29. AP-10.2.4 Licensee Event Report

replaced per addendum
Change 6/12.
Minutes 6/12/91

ATTACHMENT 1

(82) McGuire 1 LER 84-016

Inadvertent rupture of upper head injection membrane forcing unit shutdown.

Event date: 042884 Report Date: 053184 NSSS: WE TYPE: PWR

1. On April 26, 1984 at approx. 0200, the upper head injection membrane (rupture disc) ruptured while operations personnel were aligning the safety injection system for Unit 1 startup. Unit 1 was in mode 3 with the Reactor Coolant System at 1900 lbs. pressure at the time the membrane ruptured. It was initially thought that the membrane had not actually ruptured, and the unit entered mode 2 on April 27, 1984. However, Chemistry samples indicated the UHI total dissolved nitrogen content did not meet the requirements of Tech Specs. Efforts to feed and bleed the system were ineffective, and the UHI system was declared inoperable at 0140 on April 28, 1984 (Reactor in mode 2). Shutdown of the unit was commenced in accordance with Tech Specs to repair the ruptured membrane. The unit entered mode 3 at 0355 on April 28, 1984. This event is attributed to procedural deficiency due to an inadequate sequence for valve alignment on the temporary modification used to equalize pressure across the main isolation valves on the UHI System. The membrane was replaced and the UHI System declared operable on May 1, 1984. The procedure will be revised to insure that the equalization process is correctly performed in the future.

2. Should not be a problem due to temporary modification controls (Technical Reviews)

ATTACHMENT 2

(162) Nine Mile Point 2 LER 88-007 Rev 01

Update on shutdown cooling isolation while venting an instrument line due to an unexpected pressure surge.

Event Date: 020188 Report Date: 053188 NSSS: GE TYPE: BWR

1. While in cold shutdown on February 1, 1988, the shutdown cooling system isolated on a spurious high reactor pressure signal at 0403 hours. During the event reactor pressure was atmospheric and coolant temperature was 115°F. An instrument and controls technician was backfilling a common sensing line to the high reactor pressure sensing transmitter to remove entrapped air. The hand operated fill pump discharge pressure was sufficient to increase the sensing line pressure at the transmitter and exceed the pressure setpoint for SDC operation. As a result, Primary Containment isolation group 5 valves and SDC isolated on a high reactor pressure signal (128 psig). The most probable cause for the unexpected pressure surge is that the technician may have pumped too quickly. A contributing factor is a lack of an appropriate connection for maintenance. Immediate corrective action was to verify that an alternate method for coolant circulation and decay heat removal was available. Normal SDC was restored at 0600 hours. Further corrective actions include a discussion of this event via the lessons learned program and a modification request to add an appropriate maintenance connection.

2. Should not be a problem now or in the future due to temporary modification controls. (Technical Reviews)

(53) Crystal River 3 LER 83-062 Rev 01

Update on Reactor Building pressure recorder inoperable due to procedural inadequacy.

Event Date: 120883 Report Date: 080388 NSSS: BW TYPE: PWR

1. On December 8, 1983, it was determined that the recorder for Reactor Building pressure was inoperable. Reactor Building pressure indication was available on indicators located on the main control board. This event was caused by a procedural inadequacy. The recorder was disconnected during installation of a modification when one of the electrical drawings used for the modification was revised and one of the wires to the recorder was inadvertently omitted. A modification was prepared to correct the wiring to the recorder and was installed on December 27, 1983. Surveillance procedure, remote shutdown panel operability verification, has been revised to ensure the recorders listed in Tech Specs are checked on a monthly basis.

2. Should not be a problem, verification of drawing changes being proper and complete is required with signoffs for verification included in temporary modification documentation.

(186) WPPSS 2 LER 88-025

An isolation actuation instrumentation channel was inoperable between 6/27/88 and 7/8/88 due to wiring and testing error caused by personnel error.

Event Date: 070888 Report Date: 080888 NSSS: GE TYPE: BWR

1. On 7/8/88 plant instrument technicians, while troubleshooting a leak detection system differential temperature switch for Reactor Water Clean Up System Pump Room B, found the leads for the thermocouple, representing RWCU Pump B room inlet temperature, that is configured with room outlet temperature so that a differential signal is generated, representative of room differential temperature. The instrumentation provides a containment isolation signal for RWCU in the event of a high energy leak in the pump room. The wiring error rendered the trip function for the channel inoperable. Two causes for this event were determined: During the spring 1988 outage the leads were disconnected to facilitate RWCU System modifications and were reconnected incorrectly during system restoration; secondly, the operability check instructions, performed after maintenance and prior to returning the system to operable status, were incorrect and failed to detect the wiring error. A contributing cause was the failure of the shiftily channel check to promptly determine the inoperable status of the channel.

2. Should not be a problem, should be caught by verifier's or system engineer's physical review of temporary modification installation and removal.

(24) Browns Ferry 2 LER 88-004

Personnel error initiates engineered safety features.

Event Date: 070188 Report Date: 072988 NSSS: GE TYPE: BWR

Other units involved: Browns Ferry 1 (BWR)
Browns Ferry 3 (BWR)

1. On July 1, 1988 at 1205 hours and again at 1310 hours with all three units defueled, a low reactor water level signal was received by the Reactor Protection System. This initiated standby gas treatment and Control Room emergency ventilation. The Unit 2 reactor zone ventilation isolated, the refueling zone ventilation isolated and an isolation signal was sent to the Unit 2 isolation valves on the reactor water cleanup, residual heat removal, primary containment ventilation, and traversing incore probe. The second event occurred while investigating the cause of the first event. Both events were caused by draining sensing lines on a Unit 2 reactor vessel level transmitter and a reactor pressure transmitter during performance of a modification, without an adequate clearance. This was due to a personnel error on the part of the responsible modifications engineer in filling out the clearance request and the assistant shift operations supervisor in establishing the clearance. The sensing lines were capped, isolations reset and all ventilation systems returned to normal. A second clearance was issued to prevent recurrence. The individuals involved have been counseled.

2. Should not be a problem, both CSO and SSS are required to be involved in temporary modification approval procedurally and both signatures are required on temporary modification documentation.