JOB PERFORMANCE MEASURE SETUP SHEET

System:	Administrative
Time Critical:	No
Applicability:	SRO
Administrative Topic:	Conduct of Operations
Validated Time:	15 minutes
References:	NOBP-TR-1271, Rev. 7 & PYBP-POS 1-5, Rev. 3
Required Material:	NOBP-TR-1271, Operator License Administration PYBP-POS 1-5, Operations Training Guidelines NOP-LP-4011, FENOC Work Hour Control NUREG-1021, Operator Licensing Examination Standards For Power Reactors
Tasks:	299-831-03-01 Perform licensed duties only if your license is Current and Active
Task Standard:	Review proposed work schedules to determine appropriate schedule(s) to reactivate SRO license per NOBP-TR-1271, Operator License Administration
K / A Data:	2.1.4 Knowledge of individual licensed operator responsibilities related to shift staffing, such as medical requirements, "no-solo" operation, maintenance of active license status, 10CFR55, etc. RO 3.3 SRO 3.8

1. Setup Instructions: N/A

2. Location / Method: Classroom / Perform

3. Initial Condition: It is June 26 and you have an Inactive SRO license. Operations Manager wants you to activate your SRO license. I will provide you with 6 proposed schedules to re-activate your SRO license.

4. Initiating Cue:
   - Evaluate the proposed schedules to determine if each/any of the schedules meet the requirements to reactivate your SRO License.
   - If a schedule does not meet the requirements, **EXPLAIN** why it does not.

Start Time: _____ **End Time**: _____

Candidate: _____

JPM BODY SHEET

Standard: Performer obtains or simulates obtaining all materials, procedures, tools, keys, radios, etc… before performing task.

Standard: Performer follows management expectations with regards to safety and communication standards.

Step 1

NOBP-TR-1271, Operator License Administration

4.5 Maintaining an Active NRC License

4.5.1 Operations Manager

1. Ensure that only individuals with an active, valid, NRC Reactor Operator or Senior Reactor Operator License (or individuals in an approved Licensed Operator Training Program and directly supervised by a Licensed Operator) are permitted to perform Licensed Duties as specified in Technical Specifications and Plant Operating Procedures.

3. Initiate an Inactive License Retraining Program (Attachment 2) for the individual that specifies the following minimum requirements for reinstatement to Licensed Duties:

   b. Stand a minimum of forty (40) hours of on-shift functions (within the same calendar quarter), including at least one complete on-coming shift turnover and one complete offgoing shift turnover, under the direction of a Licensed Operator or Licensed Senior Operator watchstander (as appropriate) in the position to which the individual will be assigned.

PYBP-POS-1-5, Operations Training Guidelines

4.1 Tracking Of Proficiency Watches

4.1.1 Discussion of Maintenance and Reactivation Requirements

If the time-on-shift requirement is not met within a calendar quarter, the active license becomes inactive. The license holder is not permitted to resume watchstanding duties until the license is reactivated through a minimum of 40 hours of under instruction watch-standing and the completion of other reactivation activities. ….

Step 1 continued next page

Step 1 continued

Standard: Operator reviews the following for reactivation requirements:

- NOBP-TR-1271, Operator License Administration
- PYBP-POS-1-5, Operations Training Guidelines

Instructor Cue: None

Notes: Candidate may want to review NOP-LP-4011 for Fatigue Rule.

Reactivation of a License does not require standing full shifts to fulfill the 40-hour under instruction requirement. (Ref. NUREG 1021, ES-605 C.2.f)

SAT ___ UNSAT ___

Comment(s): _____

Step 2

Evaluate Schedule 1.

Critical Step: Operator determines Schedule 1 does not meet:

- 40 hours in a calendar quarter in a qualifying position (NOT Shift Engineer)

Instructor Cue: None

Notes: None

SAT ___ UNSAT ___

Comment(s): _____

Step 3

Evaluate Schedule 2

Critical Step: Operator determines Schedule 2 does not meet:

- 40 hours in a calendar quarter in a qualifying position (NOT Shift Engineer)
- No On-coming turnover

Instructor Cue: None

Notes: None

SAT ___ UNSAT ___

Comment(s): _____

Step 4

Evaluate Schedule 3

Critical Step: Operator determines Schedule 3 meets all requirements.

Instructor Cue: None

Notes: None

SAT ___ UNSAT ___

Comment(s): _____

Step 5

Evaluate Schedule 4

Critical Step: Operator determines Schedule 4 does not meet:

- 40 hours in a calendar quarter

Instructor Cue: None

Notes: None

SAT ___ UNSAT ___

Comment(s): _____

Step 6

Evaluate Schedule 5

Critical Step: Operator determines Schedule 5 meets all requirements.

Instructor Cue: None

Notes: None

SAT ___ UNSAT ___

Comment(s): _____

Step 7

Evaluate Schedule 6

Critical Step: Operator determines Schedule 6 does not meet:

- 40 hours in a calendar quarter in a qualifying position (NOT Shift Engineer)

Instructor Cue: None

Notes: None

SAT ___ UNSAT ___

Comment(s): _____

Terminating Cue: Operator has determined that schedules 1, 2, 4, & 6 do not meet the requirements for SRO license reactivation and has selected either schedule 3 or 5 to reactivate SRO license.

Evaluation Results: **SAT_____ UNSAT_____**

End Time: _____

Proposed Schedules

Schedules		27-Jun	28-Jun	29-Jun	30-Jun	1-Jul	2-Jul	3-Jul	4-Jul	5-Jul
1	Hours Position Turnovers			8 hrs. SE	12 hrs. US On-coming	12 hrs. US Off-going	12 hrs. SE Off-going	12 hrs. SM	4 hrs. US On-coming	
2	Hours Position Turnovers	12 hrs. US Off-going	12 hrs. US Off-going	12 hrs. US Off-going	12 hrs. SE					
3	Hours Position Turnovers				12 hrs. SE	6 hrs. US On-coming	12 hrs. US Off-going	12 hrs. US	8 hrs. US	6 hrs. US
4	Hours Position Turnovers	8 hrs. SM On-coming	8 hrs. SM On-coming	8 hrs. US Off-going	8 hrs. US Off-going	8 hrs. SE				
5	Hours Position Turnovers	12 hrs. US	12 hrs. US On-coming	8 hrs. US Off-going	8 hrs. US Off-going	8 hrs. SE				
6	Hours Position Turnovers			12 hrs. SE	8 hrs. SM	12 hrs. US Off-going	8 hrs. US On-coming	12 hrs. US On-coming	8 hrs. SE	7 hrs. SE

SE – Shift Engineer
SM = Shift Manager
US = Unit Supervisor

JPM CUE SHEET

INITIAL CONDITIONS:	It is June 26 and you have an Inactive SRO license. Operations Manager wants you to activate your SRO license. I will provide you with 6 proposed schedules to re-activate your SRO license.
INITIATING CUE:	• Evaluate the proposed schedules to determine if each/any of the schedules meet the requirements to reactivate your SRO License. • If a schedule does not meet the requirements, EXPLAIN why it does not.

JOB PERFORMANCE MEASURE SETUP SHEET

System:	Administrative
Time Critical:	No
Alternate Path:	No
Applicability:	SRO
Safety Function:	Conduct of Operations
Validated Time:	14 Minutes
References:	SVI-P50-T2001 Rev 7, NOP-WM-2003 Rev 9
Required Material:	SVI- P50-T2001, CVCW Isolation Valves Operability Test NOP-WM-2003, Work Management Surveillance Process
Task:	342-564-03-02 Determine Operability of Plant Equipment Based on Surveillance Test Results and Other Plant Conditions. 342-566-03-02 Complete the Requirements for a Final Review of a Surveillance Data Package
Task Standard:	Review surveillance to determine if isolation valves are operable.
K/A:	2.1.2 Knowledge of operator responsibilities during all modes of plant operation. Importance: SRO 4.4

1. Setup: None

2. Location / Method: Class Room / Administrative performance.

3. Initial Condition: Reactor power is currently at 95%. SVI- P50-T2001, CVCW Isolation Valves Operability Test was performed but not reviewed last shift per the PWIS for the 2-Year (24-month) performance.

4. Initiating Cue: As the Unit Supervisor, perform SRO review of the attached SVI- P50-T2001, CVCW Isolation Valves Operability Test. Document the results of your review on the Data Package Cover Sheet.

Start: _____ **Stop:** _____

Operator: _____

JPM BODY SHEET

Standard: Performer obtains or simulates obtaining all materials, procedures, tools, keys, radios, etc… before performing task.

Standard: Performer follows management expectations with regards to safety and communication standards.

Step 1

Review surveillance.

SVI- P50-T2001, CVCW Isolation Valves Operability Test

4.0 PREREQUISITES

2 Have the Unit Supervisor determine PI Verification requirements from the Functional Location associated with this instruction and, check YES or NO.

PI Verification Required: ☐ YES ☐ NO.

Standard: Operator reviews the SVI and determine that PREREQUISITE Step 2 was inappropriately checked NO.

Instructor Cue: If asked, direct Operator to continue review.

Notes: Per the Initial Conditions, the 2-year performance of this surveillance is required. The position indication verification is required every 2 years for the Inservice Testing Program (T.S. 5.5.6) and T.S. 3.3.3.1, Post Accident Monitoring (PAM) Instrumentation, SR 3.3.3.1.3

SAT ___ UNSAT ___

Comment(s): _____

Step 2

Review surveillance.

Critical Step:	Operator determines in Step 5.1.2.c, the recorded closed stroke time exceeds the Acceptable Range.
Instructor Cue:	None
Notes:	Step is marked SAT with an excessive stroke time.

SAT ___ UNSAT ___

Comment(s): _____

Step 3

Review surveillance.

Standard:	Operator determines all other items checked in this surveillance were performed satisfactorily.
Instructor Cue:	None
Notes:	None

SAT ___ UNSAT ___

Comment(s): _____

Step 4

Review surveillance.

Critical Step:	Reviews Acceptance Criteria (Step 5.3) and determines that Step 5.3.1 was inappropriately signed.
Instructor Cue:	None
Notes:	Step 5.3.2 was correctly signed off.

SAT ___ UNSAT ___

Comment(s): _____

Step 5

Review surveillance Data Package Cover Sheet.

Critical Step:	Reviews Data Package Cover Sheet and determines that "TECHNICAL SPECIFICATION DATA" block should be checked UNACCEPTABLE.
Instructor Cue:	None
Notes:	Valve P50-F140 exceeded the Acceptable Range for stroke time to close. Therefore, Acceptance Criteria 5.3.1 was not met. Terminate the JPM

SAT ___ UNSAT ___

Comment(s): _____

Terminating Cue: Review of SVI-P50-T2001 is complete and problems have been documented on the Data Package Cover Sheet.

Evaluation Results: **SAT_____ UNSAT_____**

End Time _____

JPM CUE SHEET

INITIAL CONDITIONS:	Reactor power is currently at 95%. SVI- P50-T2001, CVCW Isolation Valves Operability Test was performed but not reviewed last shift per the PWIS for the 2-Year (24-month) performance.
INITIATING CUE:	As the Unit Supervisor, perform SRO review of the attached SVI- P50-T2001, CVCW Isolation Valves Operability Test. Document the results of your review on the Data Package Cover Sheet.

JOB PERFORMANCE MEASURE SETUP SHEET

System:	P54, Fire Protection System - Water
Time Critical:	No
Alternate Path:	No
Setting:	Classroom
Applicability:	SRO only
Admin Topic:	Equipment Control
Validated Time:	22 Minutes
References:	SOI-P54(WTR) Rev 24, PAP-1910 Rev 39, & Dwg 914-001 Rev RR
Required Material:	SOI-P54(WTR), PAP-1910, & Dwg 914-001
Task:	286-505-01-01 Analyze System Problems 286-506-03-01 Inform Unit Supervisor of Inoperable Fire Protection Systems 343-684-03-02 Determine Required Actions for an Unplanned Fire Impairment / Barrier Removal When the P54 RSE is not Available
Task Standard:	Identify boundary for leaking fire protection system component and determine Required Actions for an Unplanned Fire Impairment.
K/A Data:	2.2.41 - Ability to obtain and interpret station electrical and mechanical drawings. Importance SRO 3.9 2.2.38 - Knowledge of conditions and limitations in the facility license. Importance SRO 4.5

1. Setup Instructions: If administered in classroom, have package of all 914 drawings available.

2. Location / Method: Simulator / Classroom - Administrative Performance

3. Initial Condition: The Plant is at rated power. Reports from the field indicate that P54-F3554, Motor to Diesel Fire Pump Xconn Supply to Ring has a thru wall pipe rupture. The Unit Supervisor has ordered all Fire Pumps shutdown to secured status per SOI-P54(WTR).

4. Initiating Cue: As the Unit Supervisor, determine:
   1) How P54-F3554 can be isolated.
   2) What Fire Protection Functional Specification(s) is the plant currently in per PAP-1910?

Start: _____ **Stop:** _____

Candidate: _____

JPM BODY SHEET

Standard: Performer obtains or simulates obtaining all materials, procedures, tools, keys, radios, etc… before performing task.

Standard: Performer follows management expectations with regards to safety and communication standards.

Step 1

Evaluate Leak Isolation, Drawing 914-0001-0000, Fire Service Yard Area

Critical Step:	Candidate obtains drawing and determines that closing P54-F3552 is necessary to isolate P54F3554.
Instructor Cue:	When the Candidate determines the correct 914 drawing to use, then provide the drawing to the Candidate if required
Notes:	JPM Steps 1, 2, & 3 can be performed in any order. P54-F3554 coordinates are F-4 and P54-F3552 coordinates are H-2.

SAT ___ UNSAT ___

Comment(s): _____

Step 2

Evaluate Leak Isolation, Drawing 914-0001-0000, Fire Service Yard Area

Critical Step: Candidate obtains drawing and determines that closing P54-F6371 is necessary to isolate P54F3554.

Instructor Cue: None

Notes: JPM Steps 1, 2, & 3 can be performed in any order.
P54-F3554 coordinates are F-4 and P54-F6371 coordinates are C-3.

SAT ___ UNSAT ___

Comment(s): _____

Step 3

Evaluate Leak Isolation, Drawing 914-0001-0000, Fire Service Yard Area

Critical Step: Candidate obtains drawing and determines that closing P54-F3555 is necessary to isolate P54F3554.

Instructor Cue: None

Notes: JPM Steps 1, 2, & 3 can be performed in any order.
P54-F3554 coordinates are F-4 and P54-F3555 coordinates are F-4.

SAT ___ UNSAT ___

Comment(s): _____

Step 4

PAP-1910 Fire Protection Program

Attachment 3, Section 3.A Fire Suppression Water Supply (Motor/Diesel Pumps)

D. ACTIONS FOR NOT FUNCTIONAL:

IF Both Fire Pumps are not functional,
THEN:
24 HOURS a.(1) Establish a backup fire suppression water system.
OR
1 HOUR a.(2) If a backup system cannot be established, implement the requirements of LCO 3.0.3. Action shall be initiated within 1 hour to place the unit, as applicable, in: MODE 2 within 7 hours, MODE 3 within 13 hours, MODE 4 within 37 hours. Where corrective measures are completed that permit operation, LCO 3.0.3 is not required. LCO 3.0.3 is only applicable in MODES 1, 2, and 3.

Determine Fire Protection Functional Specifications: Current Specification, prior to isolation and restoration:

Critical Step:	Candidate determines that both fire pumps are not functional and determines Actions for Not Functional are: (1) 24 hours to establish backup system or (2) Enter LCO 3.0.3.
Instructor Cue:	Plant is in Mode 1
Notes:	PAP 1910 pages 66-67, with both pumps in secured status, pumps are not capable of auto starting, therefore, not functional.

SAT ___ UNSAT ___

Comment(s): _____

Step 5

Attachment 3, Section 4.A Fire Mains and Headers

D. ACTIONS FOR NOT FUNCTIONAL:

IF: 1) Any portion of the fire main distribution piping is out of service,
THEN:
24 HRS b. Establish back-up fire suppression water supply to the affected system/areas through temporary jumpers.

NOTE
During the time period between the determination of loss of fire suppression water supply to a system/area and the establishment of a temporary supply, or if a temporary supply cannot be provided, all impaired systems shall be properly compensated for per the individual system's requirements of this attachment.

Determine Fire Protection Functional Specifications: Current Specification, prior to isolation and restoration:

Standard:	Candidate determines that the Fire Header located between isolation valves P54-F3552, P54-F3555, and P54-F6371 is not functional. Candidate applies NOTE above Action 4.D.1)b. which states, "During the time period between the determination of loss of fire suppression water supply to a system/area and the establishment of a temporary supply, or if **a temporary supply cannot be provided, all impaired systems shall be properly compensated for per the individual system's requirements of this attachment**." Candidate determines that a temporary supply cannot be provided to the isolated piping due to the pipe rupture. Candidate refers to PAP-1910, Attachment 3, Section 6.A, Yard Fire Hydrants and Hydrant Hose Houses to determine required actions.
Instructor Cue:	None
Notes:	PAP-1910, Attachment 3, Section 6.A, Yard Fire Hydrants and Hydrant Hose Houses required actions are covered under Step 6.

SAT ___ UNSAT ___

Comment(s): _____

Step 6

Attachment 3, Section 6.A Yard Fire Hydrants and Hydrants Hose Houses

D. ACTIONS FOR NOT FUNCTIONAL:

IF: 2) Any other hydrant or hose house is not functional,
THEN:
NONE a. Ensure that the fire brigade is aware of the status.

Determine Fire Protection Functional Specifications: Current Specification, prior to isolation and restoration:

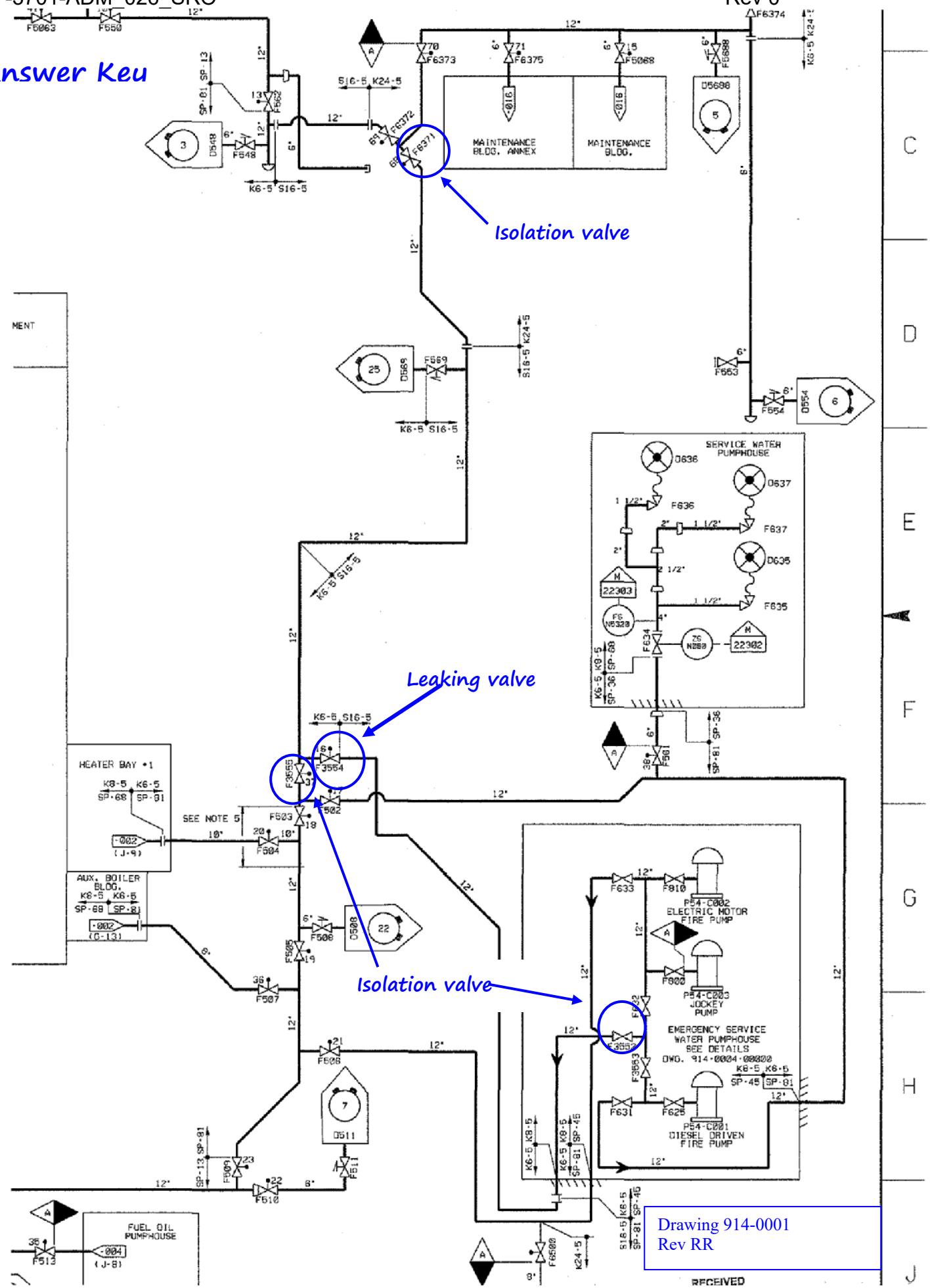
Critical Step:	Candidate determines that Yard Hydrant # 25 is not functional and determines Actions for Not Functional are: (2).a Ensure that the fire brigade is aware of the status.
Instructor Cue:	Understand Fire Brigade is aware of the status.
Notes:	None
SAT ___	**UNSAT ___**
Comment(s): _____	

Terminating Cue: The valves needed to isolate the leak have been correctly identified and the correct Functional Specifications for the loss of Fire Suppression Equipment have been identified.

Evaluation Results: **SAT_____** **UNSAT_____**

End Time _____

Answer Keu



Drawing 914-0001
Rev RR

JPM CUE SHEET

INITIAL CONDITIONS:	• The Plant is at rated power. • Reports from the field indicate that P54-F3554, Motor to Diesel Fire Pump Xconn Supply to Ring has a thru wall pipe rupture. • The Unit Supervisor has ordered all Fire Pumps shutdown to secured status per SOI-P54 Water.
INITIATING CUE:	As the Unit Supervisor, determine: 1) How P54-F3554 can be isolated. 2) What Fire Protection Functional Specification(s) is the plant currently in per PAP-1910?

JOB PERFORMANCE MEASURE SETUP SHEET

System:	Administrative
Time Critical:	No
Alternate Path:	No
Setting:	Classroom
Applicability:	SRO only
Admin Topic:	Radiation Control
Validated Time:	22 Minutes
References:	HPI-B0003 Rev 28 Form 10136 Rev 7/26/01
Required Material:	HPI-B0003, Processing of Personnel Dosimetry EPI Book, NOP-OP-4200 series book Form PNPP 10136, Emergency Dose Authorization Calculator
Task:	344-511-05-03 Request and Authorize increased exposure limits for emergency responders during emergency events. 451-656-05-50 Discuss TSC or CR EC responsibilities for authorization plans personnel to receive dose in excess of 10CFR20 limits under emergency situations.
Task Standard:	Determine if an Operator can perform an emergency evolution due to radiation levels and complete an Emergency Dose Authorization if evolution can be performed.
K/A:	2.3.4 Knowledge of radiation exposure limits under normal or emergency conditions. Importance: SRO 3.7

JOB PERFORMANCE MEASURE SETUP SHEET Cont

1. Setup: Ensure "Required Material" available at JPM site.

2. Location / Method: Class Room / Administrative performance.

3. Initial Condition: The plant is in an Unusual Event due to lowering Spent Fuel Pool level. No facilities are currently activated, and Emergency Coordinator duties remain in the Control Room. While investigating a leak in the FPCC Heat Exchanger Room, an NLO (Roberts) became pinned against the east wall near the "A" HX when a scaffold supporting lead blankets collapsed. Due to the weight of the blankets he is unable to move but is shielded. He has suffered potentially life-threatening injuries and must be rescued. RP Supervision informs you that travel path dose rates are 3 REM/hr to NLO Roberts and 60 REM/hr where NLO Roberts is located. It is estimated that total travel time to and from NLO Roberts is 5 minutes (2&½ minutes each way) and it will take 30 minutes to move the blankets and rescue NLO Roberts.

   The four operators available for this assignment are Bob Smith, Bill Johnson, Ray Jones, and Tom Bell

   Bob Smith is 52 years old and has a life time dose of 7.2 Rem. Bob has a year to date dose of 20 mRem. Bob has not volunteered for this assignment.

   Bill Johnson is 34 years old and has had 2 planned special exposures with a life time dose of 16.5 Rem. Bill has a year to date dose of 200 mRem. Bill has volunteered for this assignment.

   Ray Jones is 28 years old and has received a previous emergency exposure with a life time dose of 27.9 Rem. Ray has a year to date dose of 100 mRem. Ray has volunteered for this assignment.

   Tom Bell is 21 years old and has a lifetime dose of 128 mRem. Tom has a year to date dose of 23 mRem. Tom has not volunteered for this assignment.

4. Initiating Cue: As the Shift Manager: 1) Determine which, if any operator(s) can perform the evolution to rescue the NLO Roberts. 2) If the evolution can be performed, complete and approve the Perry Emergency Dose Authorization form PNPP 10136

Start: _____ **Stop:** _____

Candidate: _____

JPM BODY SHEET

Standard: Performer obtains or simulates obtaining all materials, procedures, tools, keys, radios, etc… before performing task.

Standard: Performer follows management expectations with regards to safety and communication standards.

Step 1

Determine the radiation dose that will be received.

Critical Step: Determine dose to be received by the rescue operators.

Instructor Cue: None

Notes: 3 REM/60 min*5 min=0.25 REM.
60 REM/60 min* 30 min =30 REM
Total dose = 30.25 REM per rescuer

SAT ___ UNSAT ___

Comment(s): _____

Step 2

Determine that the rescuers may receive greater than 25 REM for lifesaving if he is a volunteer.

Critical Step: Determines that only Bill Johnson and Ray Jones can rescue the NLO Roberts.

Instructor Cue: Only one of the two cues below will be provided. This is dependent on the number of operators the applicant has identified.

- If the applicant identifies only one operator then direct applicant to complete and approve the Perry Emergency Dose Authorization form.
- If applicant identifies that 2 or more operators can perform the task, then say, "Due to the weight of the lead blankets it will require two operators to perform the rescue". After providing the cue direct applicant to complete and approve Perry Emergency Dose Authorization form for the two operators.

Notes: Do not give Dose Authorization Form to Candidate until after he determines who can perform rescue.

SAT ___ UNSAT ___

Comment(s): _____

Step 3

Complete Emergency Dose Authorization (Form # - PNPP 10136)

Critical Step: Fill in NAME, CURRENT YEAR DOSE, LIFETIME DOSE, & LEVEL APPROVED on form PNPP 10136.

Instructor Cue: If asked, Operator-1 SSN is 555-55-5551 and Operator-2 SSN is 555-55-5552
If asked, acting as Operator-1 & Operator-2, sign for Operator-1 & Operator-2. (Use actual names of the Operators being selected)

Notes: Level approved needs to be ≥ 30.25 and ≤ 30.5 Rem.
No signatures are required in the REQUEST block, but if requested, sign as RP supervisor.

SAT ___ UNSAT ___

Comment(s): _____

Step 4

Approve Emergency Dose Authorization (Form # - PNPP 10136) as Shift Manager acting as Emergency Coordinator.

Critical Step: Approve the Emergency Dose Authorization form PNPP 10136 in the APPROVAL Section

Instructor Cue: None

Notes: None

SAT ___ UNSAT ___

Comment(s): _____

Terminating Cue: Assigns one or more operators to rescue the NLO Roberts and approve the Emergency Dose Authorization.

Evaluation Results: **SAT_____ UNSAT_____**

End Time _____

EMERGENCY DOSE AUTHORIZATION

PNPP No. 10136 Rev. 7/26/01 HPI B-0003

REQUEST

INCREASE IS REQUIRED TO SUPPORT THE FOLLOWING EMERGENCY OPERATIONS: _____

Rescue NLO Roberts from FPCC HX Room

Name	SSN	Current Year – All Facilities	Lifetime required to exceed 5 rem	Signature Required to exceed 5 rem	Level Approved
Ray Jones	**555-55-5551**	**100 mRem**	**27.9 Rem**		**30.25 to 30.5 Rem**
Bill Johnson	**555-55-5552**	**200 mRem**	**16.5 Rem**		**30.25 to 30.5 Rem**

OSC Support Supervisor/*Operations Shift Manager*:

N/A_____

Print / Signature *Date*

Health Physics Support Supervisor/*Shift Health Physics Supervisor*:

N/A_____

Print / Signature *Date*

LIMITS TEDE:

10CFR20 – 5 rem Services – 5 rem Valuable Property – 10 rem Large Pop. or Lifesaving – 25 rem*

* If persons have volunteered to perform lifesaving activities or protect large populations and are fully aware of the risks involved the above dose limits may be exceeded. Doses should be limited to the lowest practicable.

Operations Shift Manager and Shift Health Physics Supervisor should submit Emergency Dose Authorizations prior to OSC activation.

APPROVAL

TSC Operations Manager/*Operations Shift Manager*:

_____

Print / Signature *Date*

Radiation Protection Coordinator/*Supervision, RP*:

_____

Print / Signature *Date*

Operations Shift Manager and Supervision, RP should approve Emergency Dose Authorizations prior to TSC activation.

Answer Key

JPM CUE SHEET

INITIAL CONDITIONS:	• The plant is in an Unusual Event due to lowering Spent Fuel Pool level.
	• No facilities are currently activated, and Emergency Coordinator duties remain in the Control Room.
	• While investigating a leak in the FPCC Heat Exchanger Room, an NLO (Roberts) became pinned against the east wall near the "A" HX when a scaffold supporting lead blankets collapsed. Due to the weight of the blankets he is unable to move but is shielded. He has suffered potentially life-threatening injuries and must be rescued.
	• RP Supervision informs you that travel path dose rates are 3 Rem/hr to NLO Roberts and 60 Rem/hr where NLO Roberts is located. It is estimated that total travel time to and from NLO Roberts is 5 minutes (2&½ minutes each way) and it will take 30 minutes to move the blankets and rescue NLO Roberts.
	• The four operators available for this assignment are Bob Smith, Bill Johnson, Ray Jones, and Tom Bell
	  o Bob Smith is 52 years old and has a life time dose of 7.2 Rem. Bob has a year to date dose of 20 mrem. Bob has <u>not</u> volunteered for this assignment.
	  o Bill Johnson is 34 years old and has had 2 planned special exposures with a life time dose of 16.5 Rem. Bill has a year to date dose of 200 mrem. Bill has volunteered for this assignment.
	  o Ray Jones is 28 years old and has received a previous emergency exposure with a life time dose of 27.9 Rem. Ray has a year to date dose of 100 mrem. Ray has volunteered for this assignment.
	  o Tom Bell is 21 years old and has a lifetime dose of 128 mrem. Tom has a year to date dose of 23 mrem. Tom has <u>not</u> volunteered for this assignment.

INITIATING CUE:	As the Shift Manager: 1) Determine which, if any operator(s) can perform the evolution to rescue the NLO Roberts. 2) If the evolution can be performed, complete and approve the Perry Emergency Dose Authorization form PNPP 10136

EMERGENCY DOSE AUTHORIZATION

REQUEST

INCREASE IS REQUIRED TO SUPPORT THE FOLLOWING EMERGENCY OPERATIONS: _____

_____

_____

_____

Name	SSN	Current Year – All Facilities	Lifetime required to exceed 5 rem	Signature Required to exceed 5 rem	Level Approved

OSC Support Supervisor/*Operations Shift Manager*:

_____

Print / Signature *Date*

Health Physics Support Supervisor/*Shift Health Physics Supervisor*:

_____

Print / Signature *Date*

LIMITS TEDE:

10CFR20 – 5 rem Services – 5 rem Valuable Property – 10 rem Large Pop. or Lifesaving – 25 rem*

* If persons have volunteered to perform lifesaving activities or protect large populations and are fully aware of the risks involved the above dose limits may be exceeded. Doses should be limited to the lowest practicable.

Operations Shift Manager and Shift Health Physics Supervisor should submit Emergency Dose Authorizations prior to OSC activation.

APPROVAL

TSC Operations Manager/*Operations Shift Manager*:

_____

Print / Signature *Date*

Radiation Protection Coordinator/*Supervision, RP*:

_____

Print / Signature *Date*

Operations Shift Manager and Supervision, RP should approve Emergency Dose Authorizations prior to TSC activation.

NOTE: Normally, planned doses during an emergency should be controlled to within <10CFR20> limits. However, under emergency circumstances these limits may be waived by TSC Operations Manager along with the Radiation Protection Coordinator, or the Operations Shift Manager, acting as Emergency Coordinator, if the TSC is not activated, to allow personnel to perform valuable emergency actions. Due to the urgent nature of emergency dose requirements, completion of the Emergency Dose Authorization can be accomplished subsequent to receiving dose if situations warrant. The doses received should be voluntary and commensurate with the significance of the objective and held to the lowest practicable level that the emergency permits.

JOB PERFORMANCE MEASURE SETUP SHEET

System:	Admin
Time Critical:	Yes
Alternate Path:	No
Applicability:	SRO only
Admin Topic:	Emergency Procedures/Plan
Validated Time:	15 Minutes
References:	10565 Rev. 1/3/17, EPI-A1 Rev. 28, EPI-A2 Rev. 23, EPI-B1 Rev. 28, NORM-LP-5001 Rev. 6, PSI-19 Rev. 20
Required Material	10565 - EAL Classification Matrix EPI-A1 - Emergency Action Levels EPI-A2 - Emergency Actions Based On Event Classification EPI-B1 - Emergency Notification System NORM-LP-5001 - FENOC Position on "Release in Progress" for Emergency Response Organization PSI-19, Emergency Action Level (EAL) Bases Document Event Classification Forms packet
Task:	451-654-05-50 Upon declaration of any Emergency Action Level, notify offsite authorities of the event. 344-532-05-02 Prepare Emergency Plan Initial Notification Form
Task Standard:	Declare the emergency action level (RA1.1), complete initial notifications within 15 minutes and ensure communicator has notification form within the following 10 minutes.
K/A:	2.4.38 Ability to take actions called for in the facility emergency plan, including supporting or acting as emergency coordinator if required. Importance: SRO 4.4.

1. Setup Instructions: Provide EAL Matrix and EPI book from simulator and PSI-19, Emergency Action Level (EAL) Bases Document and Event Classification Forms packet for candidate use.

2. Location / Method: Admin / Performance

3. Initial Condition: The plant was operating at 100% power. A steam leak occurred in the turbine building. A manual reactor scram was inserted.
All rods are indicating "00", full-in. Review the attached TB/HB Vent Radiation Monitor picture for current stable conditions. A MIDAS report has been requested but is not yet available. Steam is visible on the cameras in the Offgas Holdup Line area of the Turbine Building. RP estimates it will take at least an hour to enter the Turbine Building to identify the exact leak location and isolate the leak.

4. Initiating Cue: You are the Shift Manager and I am the Control Room Communicator. You are to: Evaluate the Emergency Plan and complete required paperwork.

Task is Time Critical

Start Time: _____ **End Time**: _____

Candidate: _____

JPM BODY SHEET

Standard: Performer obtains or simulates obtaining all materials, procedures, tools, keys, radios, etc… before performing task.

Standard: Performer follows management expectations with regards to safety and communication standards.

Step 1

EPI-A1, Emergency Action Levels

5.1 Event Assessment and Event Classification

5.1 Classify the emergency as follows:

1. Using form PNPP No. 10565, EAL Classification Matrix Pages 1 through 3, identify the emergency by event and determine the most appropriate EAL.
2. Declare an emergency class when all the conditions listed for an EAL have been met, and implement <EPI-A2>.
   a. When several EALs are met, declare the most severe emergency class.
3. Complete the Event Classification Checklist (PNPP No. 7983A), contained in <EPI-A2>.

ALERT

Release of gaseous or liquid radioactivity resulting in offsite dose greater than 10 mrem TEDE or 50 mrem child thyroid CDE

RA1.1	1	2	3	4	5	DEF

Reading on **any** Table R-1 effluent radiation monitor > column "ALERT" for ≥ 15 min. (Notes 1, 2, 3, 4)

Notes

1. The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded.
2. If an ongoing release is detected and the release start time is unknown, assume that the release duration has exceeded the specified time limit.
3. If the effluent flow past an effluent monitor is known to have stopped, indicating that the release path is isolated, the effluent monitor reading is **no** longer VALID for classification purposes.
4. The pre-calculated effluent monitor values presented in EALs RA1.1, RS1.1 and RG1.1 should be used for emergency classification assessments until the results from a dose assessment using actual meteorology are available.

Table R-1 Effluent Monitor Classification Thresholds

	Release Point	Monitor	GE	SAE	Alert	UE
Gaseous	Unit 1 Plant Vent	1D17-K786 1D19-K300	---- 1.3E+00 µCi/cc	---- 1.3E-01 µCi/cc	---- 1.3E-02 µCi/cc	2 x High alarm ----
Gaseous	OG Vent Pipe	1D17-K836 1D19-K400	---- 4.7E+00 µCi/cc	---- 4.7E-01 µCi/cc	---- 4.7E-02 µCi/cc	2 x High alarm ----
Gaseous	TB/HB Vent	1D17-K856	7.7E+04 cpm	7.7E+03 cpm	7.7E+02 cpm	2 x High alarm

Critical Step: Classifies RA1.1, **15 minutes to classify**.

Instructor Cue: Notify that time critical action starts after first read of initial conditions and he is given initiating cue.

Notes: The current rad levels on the TB/ HB Gas Channel rad monitor are more than 2X the HIGH alarm set point.
Based on not being able to enter the area to isolate the leak for more than 60 minutes at this current release rate, NOTE 1 states the Shift Manager should classify the event if the release will not be isolated within 60 minutes but should not wait the 60 minutes if this information is known.

EAL RA1.2- DOES NOT Apply based on not having a MIDAS printout.

Start Time _____ **Classification Time** _____

SAT ___ **UNSAT** ___

Comment(s): _____

Step 2

Event Classification Checklist

Checklist completed through line A.6.

Standard:	Uses Event Classification Checklist to assist with required actions.
Instructor Cue:	None
Notes:	Refer to Answer Key for EC Checklist.

SAT ___ UNSAT ___

Comment(s): _____

Step 3

Event Classification Checklist

4. Complete an Initial Notification form (PNPP No. 7794), approve, and forward to communicators within 10 minutes of decision to classify event or revise Protective Action Recommendations (PARs).

Critical Step:	Initial Notification **Completed within 10 minutes of Classification and forwarded to the Communicator**. Block 3.a is checked for ALERT RA1.1.
Instructor Cue:	None
Notes:	**Time Given to Communicator** _____ Refer to Answer Key (highlighted items) for minimum required items on Notification Form. See PSI-019, Rev. 20 p 227 for an unisolable pathway to environment. If Candidate uses Fission Product Barrier Matrix, will only get a Loss of Containment, which does not have entry into Fission Product Barrier Degradation EAL

SAT ___ UNSAT ___

Comment(s): _____

Step 4

6. Complete the Notification Messages form (PNPP No. 9100), approve, and forward to the FCMS within 10 minutes of decision to classify event or revise PARs.

Standard:	Pager Message completed, scenario ID No. 2
Instructor Cue:	None
Notes:	Completion of Reactor Plant Event Notification Worksheet form (NOP OP 1015 01) not required. Refer to Answer Key for Pager Messages Terminate JPM

SAT ___ UNSAT ___

Comment(s): _____

Terminating Cue: RA1.1 Classified within 15 minutes and Initial Notification given to Communicator within 10 minutes.

Evaluation Results: SAT_____ UNSAT_____

End Time: _____

EVENT CLASSIFICATION CHECKLIST

PNPP No. 7983A Rev. 2/26/18 Page 1 of 2 EPI-A2

Event classified as a/an: ☐ General Emergency ☐ Site Area Emergency ☒ Alert ☐ Unusual Event

At Within 15 minutes of Cue (Time) on Todays Date (Date).

Checklist completed by: _____ (Shift Manager/TSC Operations Manager/ EOF Emergency Coordinator)

A. IMMEDIATE ACTIONS	INITIAL	TIME
1. Announce event classification and reason for declaring emergency over the Plant PA System.	√	
2. Sound Plant Emergency Alarm. (Request Control Room to initiate Alarm)	√	
3. **[CONTROL ROOM ONLY]** Call the shift I&C technician to the Control Room as a communicator.	√	
NOTE: **For a GENERAL EMERGENCY**, ensure that PAR is included using EPI-B8, Attachment 1, PAR Decision Flowchart. 4. Complete an Initial Notification form (PNPP No. 7794), approve, and forward to communicators within 10 minutes of decision to classify event or revise Protective Action Recommendations (PARs).	√	
5a. Determine facilities to be activated using table below: (R-required; O-optional)	√	

Classification/Facility	OSC	TSC	PIRT	EOF	JIC
Unusual Event	O	O	O	O	O
Alert	R	R	R	O	O
Site Area Emergency	R	R	R	R	R
General Emergency	R	R	R	R	R

5b. Announce facilities to be activated over the Plant PA System.	√	
NOTE: (1) Completion of form is delegated to the Security Coordinator once TSC is operational. (2) Activation of ERO communication devices is NOT needed if required facilities have already been/are being mobilized. 6. Complete the Notification Messages form (PNPP No. 9100), approve, and forward to the FCMS within 10 minutes of decision to classify event or revise PARs.	√	
7. Complete an Reactor Plant Event Notification Worksheet form (NOP-OP-1015-01), approve, and forward to communicators immediately following notification of the State of Ohio and local counties, but within 50 minutes of event classification.		
NOTE: It may be prudent to delay implementation of accountability in situations where personnel safety could be jeopardized, such as a security event or severe weather. 8. **[SITE AREA EMERGENCY or above]** Initiate personnel accountability per EPI-B5, if not yet implemented: ☐ Not Required		
8a. Direct Shift Manager, or designee, to initiate appropriate "Emergency" message over the Exclusion Area Paging System and use PA feature to provide further guidance on offsite assembly if required.		
8b. The Shift Manager, or designee, is to manually repeat the accountability message approximately every 5 minutes until accountability is completed, if the automated message is not working		
9. Verify that notifications and/or requests for offsite support were completed by the FCMS: a. Fire Department (911) ☐ Not Required b. Ambulance (911) ☐ Not Required c. Hospital: Primary - TriPoint; Backup - Lake West ☐ Not Required		
10. If the NRC requests that the ENS circuit remains open then verify that an individual knowledgeable in system operations is assigned to the NRC ENS Circuit to answer questions and inquiries.		

REFER TO page 2 of 2 FOR LISTING OF FOLLOW-UP ACTIONS

Answer Key

FENOC NUCLEAR POWER PLANT INITIAL NOTIFICATION FORM
Perry
PNPP No. 7794 Rev. 1/9/18 EPI-B1

USE FOR:
INITIAL CLASSIFICATIONS,
CHANGES IN CLASSIFICATIONS,
CHANGES IN PROTECTIVE ACTION RECOMMENDATIONS.
EVENT TERMINATION

STATE / COUNTY USE ONLY
DATE: _____ TIME: _____
MESSAGE NO:
_____

1. This is the: Perry Nuclear Power Plant

2. This is: ☐ An Actual Emergency ☒ A Drill

3. ☒ a. A(n) ☐ GENERAL ☐ SITE AREA EMERGENCY ☒ ALERT ☐ UNUSUAL EVENT

was declared at: Time (TIME) on Today's (DATE) based on EAL: RA1.1

☐ b. The Emergency situation has been terminated at: _____ (TIME) on _____ (DATE)

☐ c. The Protective Action Recommendation is being changed at: _____ (TIME) on _____ (DATE)

4. The radiological conditions are:

☒ a. A non-routine release of radioactive material, as a result of this event, is in progress.

☐ b. The release of radioactive material associated with this event has been terminated.

☐ c. NO Radiological Release in progress as a result of this event.

5. Utility Protective Action Recommendations (PAR's):

☐ a. Evacuation:
(check applicable subareas)

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ LAKE

AND that potassium iodide (KI) be administered to the general public in accordance with State procedures.
The general public in unaffected areas should be advised to go indoors and monitor EAS broadcasts.

☐ b. Sheltering:
(check applicable subareas)

☐ 1 ☐ 2 ☐ 3

AND Evacuate the Lake

AND that potassium iodide (KI) be administered to the general public in accordance with State procedures.
The general public in unaffected areas should be advised to go indoors and monitor EAS broadcasts.

☒ c. None

For Utility Use Only

Approved: Signature_____

Answer Key

NOTIFICATION MESSAGES

CONTROL ROOM/TSC SECURITY COORDINATOR INSTRUCTIONS:

1. Select appropriate Scenario ID number.
2. Initiate the notification by forwarding to FCMS or by forwarding the information contained within the form to an ERS representative.

TSC SECURITY COORDINATOR/FCMS OPERATOR INSTRUCTIONS:

Using the information on this form, initiate the notification of the Emergency Response Organization per PYBP-ERS-0037.

(√)	Scenario ID No.	Event Code	Message Narrative
	1	1111	**Unusual Event** – No facility activation.
√	**2**	2222	**Alert** - OSC, TSC, and PIRT to be activated.
	3	3333	**Site Area Emergency** - OSC, TSC, EOF, PIRT, and JIC to be activated.
	4	4444	**General Emergency** - OSC, TSC, EOF, and JIC to be activated.
	51	5555	Event Termination
	52	5555	OSC to be staffed.
	53	5555	TSC to be staffed.
	54	5555	PIRT to be staffed.
	55	5555	OSC, TSC and PIRT to be staffed.
	56	5555	EOF to be staffed.
	57	5555	JIC to be staffed.
	61	6666	ERO Teams respond to your offsite facility.
	62	6666	Site Inaccessible, ERO Teams respond to your offsite facility.
	81	8888	Drive-In Drill – OSC, TSC & EOF to be activated.
	91	9999	Weekly Notification Device Test (Shift Manager/EC approval not required)
	92	9999	Unannounced Notification Device Test (Shift Manager/EC approval not required)
	93	9999	Security Notification Device Test (Shift Manager/EC approval not required)
	95	1111	**Drill** Unusual Event – No facility activation.
	96	2222	**Drill** Alert - OSC, TSC, and PIRT to be activated.
	97	3333	**Drill** Site Area Emergency - OSC, TSC, EOF, PIRT, and JIC to be activated.
	98	4444	**Drill** General Emergency - OSC, TSC, EOF, and JIC to be activated.

Approved by: Today / Time / Signature
Date *Time* *Emergency Coordinator*

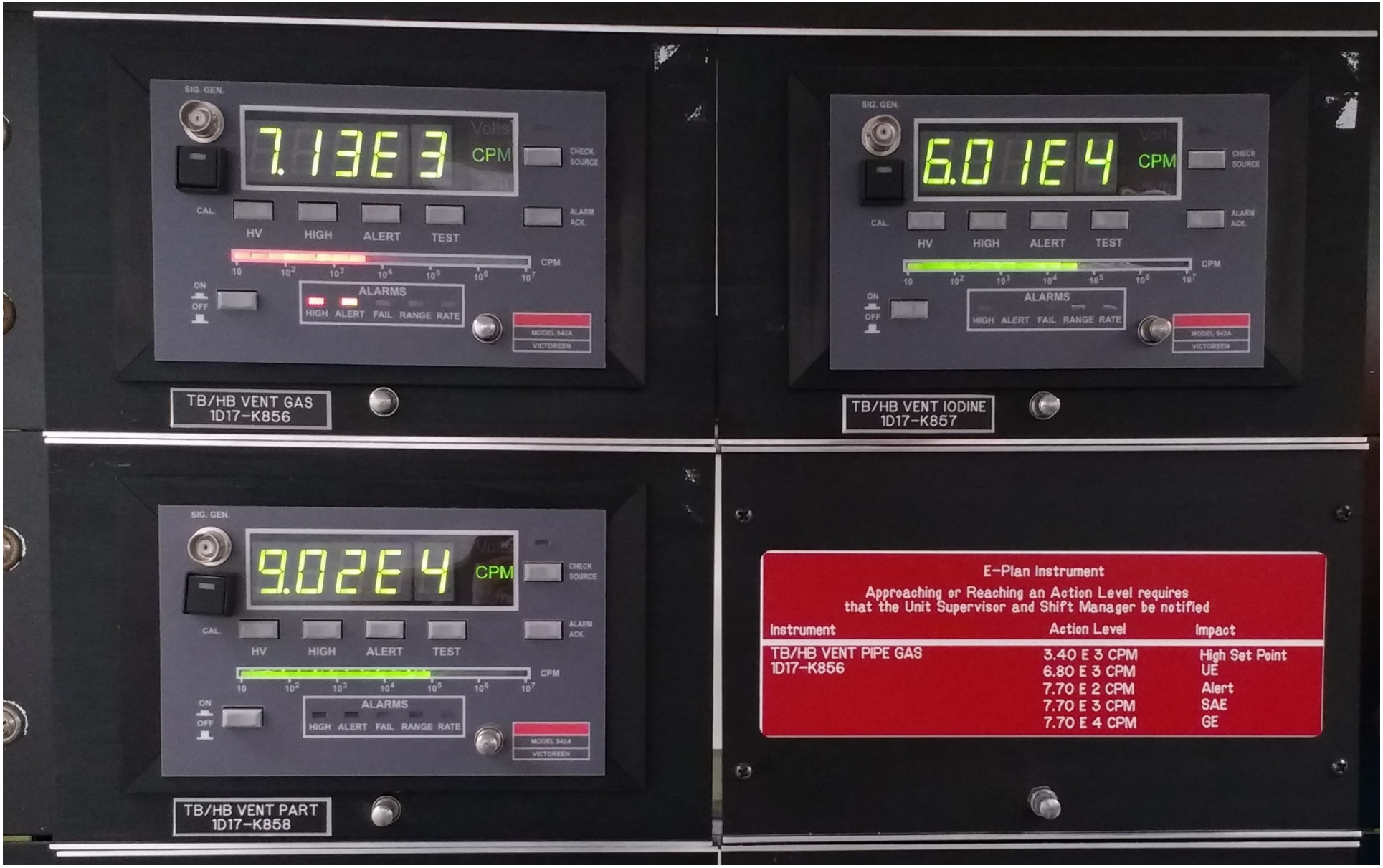
Delivered to: / /
Date *Time* *Name*

Activated by: / /

Answer Key

JPM CUE SHEET

INITIAL CONDITIONS:	• The plant was operating at 100% power. • A steam leak occurred in the turbine building. • A manual reactor scram was inserted. • All rods are indicating “00”, full-in. • Review the attached TB/HB Vent Radiation Monitor picture for current stable conditions. • A MIDAS report has been requested but is not yet available. • Steam is visible on the cameras in the Offgas Holdup Line area of the Turbine Building. • RP estimates it will take at least an hour to enter the Turbine Building to identify the exact leak location and isolate the leak.
INITIATING CUE:	You are the Shift Manager and I am the Control Room Communicator. You are to: • Evaluate the Emergency Plan • Complete required paperwork. **Task is Time Critical**


SIG. GEN.
7.13E3
CPM
CHECK SOURCE
CAL.
HV
HIGH
ALERT
TEST
ALARM ACK.
CPM
ON
OFF
ALARMS
HIGH ALERT FAIL RANGE RATE
MODEL 942A
VICTOREEN
TB/HB VENT GAS
1D17-K856
SIG. GEN.
6.01E4
CPM
CHECK SOURCE
CAL.
HV
HIGH
ALERT
TEST
ALARM ACK.
CPM
ON
OFF
ALARMS
HIGH ALERT FAIL RANGE RATE
MODEL 942A
VICTOREEN
TB/HB VENT IODINE
1D17-K857
SIG. GEN.
9.02E4
CPM
CHECK SOURCE
CAL.
HV
HIGH
ALERT
TEST
ALARM ACK.
CPM
ON
OFF
ALARMS
HIGH ALERT FAIL RANGE RATE
MODEL 942A
VICTOREEN
TB/HB VENT PART
1D17-K858
E-Plan Instrument
Approaching or Reaching an Action Level requires
that the Unit Supervisor and Shift Manager be notified
Instrument
Action Level
Impact
TB/HB VENT PIPE GAS
1D17-K856
3.40 E 3 CPM
High Set Point
6.80 E 3 CPM
UE
7.70 E 2 CPM
Alert
7.70 E 3 CPM
SAE
7.70 E 4 CPM
GE