Facility: Limerick Generating Station		Date of Examination: 10/07/02
Examination Level RO		Operating Test Number: ____
Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	Process computer	2.1.19 (3.0) Ability to use plant computer to obtain and evaluate parametric information on system or component status JPM: Evaluate jet pump operability A1-1
	License Maintenance	2.1.1 (3.7) Knowledge of conduct of operation requirements JPM: Determine status of license from working hour records A1-2
A.2	Partial Procedures	2.2.11 (2.5) Knowledge of the process for controlling temporary changes JPM: Partial procedure preparation A2 RO
A.3	Release Control	2.3.11 (2.7) Ability to control radiation releases JPM: Determine offgas effluent activity release rate A3 RO
A.4	Emergency Plan	2.4.29 (2.6) Knowledge of Emergency Plant procedures JPM: Activate the Site Evacuation Alarm and make station Announcement A4 RO

Common

ES-301 Administrative Topics Outline Form ES-301-1

Facility: Limerick Generating Station		Date of Examination: 10/07/02
Examination Level SRO		Operating Test Number: _____
Administrative Topic/Subject Description		Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	Process computer	2.1.19 (3.0) Ability to use plant computer to obtain and evaluate parametric information on system or component status JPM: Evaluate jet pump operability A1-1
	License Maintenance	2.1.1 (3.8) Knowledge of conduct of operation requirements JPM: Determine status of license from working hour records A1-2
A.2	Safety Systems Status	2.2.10 (3.3) Knowledge of the process for determining the proposed change, test, or experiment increases the probability of occurrence or consequences of an accident during the change, test, or experiment JPM: Determine required compensatory actions for barrier breach (SRO ONLY) A2-SRO
A.3	Release Controls	2.3.3 (2.9) Knowledge of SRO responsibilities for auxiliary systems that are outside the control room JPM: Determine compensatory actions for a failed radiation monitor prior to a planned liquid release (SRO ONLY) A3-SRO
A.4	Emergency Plan	2.4.41 (4.1) Knowledge of emergency action level thresholds and classifications A4-SRO JPM: Evaluate plant conditions and determine EAL (SRO ONLY)

3 common

TITLE: EVALUATE JET PUMP OPERABILITY

TASK PERFORMED BY: _____ EVALUATOR: _____

EVALUATOR SIGNATURE: _____ DATE: _____

DIRECTIONS TO EVALUATOR:

Provide attached copies of blank ST and PMS screens at the beginning of the JPM

EVALUATION METHOD :

PERFORM

EVALUATION LOCATION:

ANY

APPROXIMATE COMPLETION TIME:

15 MINUTES

IMPORTANCE RATING(S):	SYSTEM NUMBER(S):
3.0/3.0	2.1.19

REFERENCES:

ST-6-043-320-1, DAILY JET PUMP OPERABILITY VERIFICATION FOR TWO RECIRCULATION LOOP OPERATION

TASK STANDARD(S):

Determine that the surveillance is failed

TASK CONDITIONS:

1. The following were observed on Unit 1:
    - Unexplained drop in reactor power
    - Unexplained rise in core flow indication
2. ON-100 Jet Pump Failure has been entered
3. Permission to start ST-6-043-320-1 has been obtained

INITIATING CUES:

You are directed to perform ST-6-043-320-1 and report the results

Critical Element(s) indicated by "*" in Performance Checklist.

PERFORMANCE CHECKLIST:

STEP	STANDARD	SAT/UNSAT
Examiner provide PMS computer screen shots and blank ST to candidate. **Examiner refer to marked-up ST key.**		
*1. Determine if Loop A flow is within 10% of the loop flow values on the established pump speed-loop flow characteristics curve	Determine that loop "A" is not within the limits	
2. Determine if Loop B flow is within 10% of the loop flow values on the established pump speed-loop flow characteristics curve	Determine that Loop "B" is within the limits	
*3. Determine if the value of total core flow is within 10% of the established Total Core Flow value derived from Recirc Loop Flow Measurements	Determine that total core flow is not within the limits	
*4. Determine if Loop A jet pump diffuser-to-lower plenum differential pressure is within 10% of the established patterns	Determine that some jet pumps on Loop "A" are not within the limits	
5. Determine if Loop B jet pump diffuser-to-lower plenum differential pressure is within 10% of the established patterns	Determine that all jet pumps on Loop "B" are within the limits	

STEP	STANDARD	SAT/UNSAT
*6 Verify at least two of the step combinations in the surveillance are satisfactory: 4.3.1.3 and 4.3.2.3 (Pump speed vs drive flow) 4.3.3.4 (Total loop flow vs total core flow) 4.3.4.4. and 4.3.5.4 (Indiv JP DP vs Drive Flow)	Determine that three areas are unsatisfactory and the ST results are Unsatisfactory Report the unsatisfactory results	
CUE: (You may stop here. You have reached the termination criteria for this JPM)		

Comments:

Note: Any grade of UNSAT requires a comment.

JPM Overall Rating: _____
SAT/UNSAT

TASK CONDITIONS:

1. The following were observed on Unit 1:
    - Unexplained drop in reactor power
    - Unexplained rise in core flow indication
2. ON-100 Jet Pump Failure has been entered
3. Permission to start ST-6-043-320-1 has been obtained

INITIATING CUES:

You are directed to perform ST-6-043-320-1 and report the results

RPV NORMAL | CNTMT NORMAL | B016 WIDE RANGE REACTOR PRESSURE | NML | 1034 | PSIG | 900 | 1060

Group Point Display - Group Data Display on LG1PA

Change Group | Group Definition | List Groups

Group Number: 3 Group Name: RECIRC Group Status: ACTIVE

	Point ID	Description	Status	Current Value	Engineering Units	Low Plot Limit	High Plot Limit
1	B037	(19) A RECIRC PMP A1(DRIVE) FLOW	NML	17.063	MLB/H	0.000	20.000
2	B038	(20) A RECIRC PMP A2(DRIVE) FLOW	NML	17.063	MLB/H	0.000	20.000
3	B039	(21) B RECIRC PMP B1(DRIVE) FLOW	NML	13.688	MLB/H	0.000	20.000
4	B040	(22) B RECIRC PMP B2(DRIVE) FLOW	NML	13.688	MLB/H	0.000	20.000
5	B055	(23) A RECIRC LOOP A1 TEMP	NML	527.5	DEGF	270.0	570.0
6	B056	(24) A RECIRC LOOP A2 TEMP	NML	527.5	DEGF	270.0	570.0
7	B057	(25) B RECIRC LOOP B1 TEMP	NML	527.4	DEGF	270.0	570.0
8	B058	(26) B RECIRC LOOP B2 TEMP	NML	527.4	DEGF	270.0	570.0
9	E1266	A RECIRC PUMP SPEED	NML	78.585	PERCENT	18.000	102.000
10	E1267	B RECIRC PUMP SPEED	NML	78.165	PERCENT	18.000	102.000
11	E1242	REACTOR CORE FLOW	NML	73.308	MLB/HR	0.000	125.000
12							
13							
14							
15							
16							
17							
18							
19							
20							

07:40:36 PS-PRINT - %SYSTEM-S-NORMAL

[redacted] FWD BWD [redacted]

LIMERICK 1
13-AUG-02

[redacted]
7:40:52

RPV NORMAL | CNTMT NORMAL | B016 WIDE RANGE REACTOR PRESSURE | NML | 1048 | PSIG | 900 | 1060

Group Point Display - Group Data Display on LG1PA

[redacted] Change Group | [redacted] Group Definition | [redacted] List Groups

Group Number: 2 Group Name: JET PUMP D/P'S ("Z" SHIFT ST) Group Status: ACTIVE

	Point ID	Description	Status	Current Value	Engineering Units	Low Plot Limit	High Plot Limit
1	E1084	JET PUMP 1 SINGLE TAP DP	NML	31.416	%	0.000	100.000
2	E1103	JET PUMP 2 SINGLE TAP DP	NML	31.323	%	0.000	100.000
3	E1105	JET PUMP 3 SINGLE TAP DP	NML	29.318	%	0.000	100.000
4	E1247	JET PUMP 4 SINGLE TAP DP	NML	30.552	%	0.000	100.000
5	E1249	JET PUMP 5 SINGLE TAP DP	NML	31.756	%	0.000	100.000
6	E1255	JET PUMP 6 SINGLE TAP DP	NML	33.422	%	0.000	100.000
7	E1257	JET PUMP 7 SINGLE TAP DP	NML	29.873	%	0.000	100.000
8	E1259	JET PUMP 8 SINGLE TAP DP	NML	28.330	%	0.000	100.000
9	E1263	JET PUMP 9 SINGLE TAP DP	NML	30.861	%	0.000	100.000
10	E1265	JET PUMP 10 SINGLE TAP DP	NML	31.756	%	0.000	100.000
11	E1037	JET PUMP 11 SINGLE TAP DP	NML	31.413	%	0.000	100.000
12	E1097	JET PUMP 12 SINGLE TAP DP	NML	31.599	%	0.000	100.000
13	E1104	JET PUMP 13 SINGLE TAP DP	NML	28.650	%	0.000	100.000
14	E1235	JET PUMP 14 SINGLE TAP DP	NML	30.481	%	0.000	100.000
15	E1254	JET PUMP 15 SINGLE TAP DP	NML	31.009	%	0.000	100.000
16	E1248	JET PUMP 16 SINGLE TAP DP	NML	33.244	%	0.000	100.000
17	E1256	JET PUMP 17 SINGLE TAP DP	NML	28.557	%	0.000	100.000
18	E1258	JET PUMP 18 SINGLE TAP DP	NML	31.319	%	0.000	100.000
19	E1260	JET PUMP 19 SINGLE TAP DP	NML	4.306	%	0.000	100.000
20	E1264	JET PUMP 20 SINGLE TAP DP	NML	4.488	%	0.000	100.000

07:30:39 PS-PRINT - %SYSTEM-S-NORMAL

[redacted] FWD BWD [redacted]

LIMERICK 1
13-AUG-02

[redacted]

7:30:42

TITLE: DETERMINE STATUS OF LICENSE FROM WORKING HOUR RECORDS

TASK PERFORMED BY: _____ EVALUATOR: _____

EVALUATOR SIGNATURE: _____ DATE: _____

DIRECTIONS TO EVALUATOR:

None

EVALUATION METHOD:

PERFORM

EVALUATION LOCATION:

ANY

APPROXIMATE COMPLETION TIME:

15 MINUTES

IMPORTANCE RATING(S): 3.7/3.8

SYSTEM NUMBER(S): 2.1.1 Knowledge of conduct of operation requirements

REFERENCES:

OP-AA-105-102 , NRC ACTIVE LICENSE MAINTENANCE

TASK STANDARD(S):

Determine that the license status is inactive due to insufficient hours stood

TASK CONDITIONS:

A reactor operator has stood the following shift schedule over the last three months:

Date	Hours	Position
10/01	6	RO
10/19	12	RO
11/21	12	PRO
11/29	6	PRO
12/15	12	RO
12/17	4	PRO
12/31	12	RO

INITIATING CUES:

Determine the status of the Reactor Operator's license and whether he may stand the watch as RO today, January 2nd .

Critical Element(s) indicated by "*" in Performance Checklist.

PERFORMANCE CHECKLIST:

STEP	STANDARD	SAT/UNSAT
(CUE) **Provide copy of OP-AA-105-102 , NRC ACTIVE LICENSE MAINTENANCE**		
1. The quarterly shift watch requirement may be completed with a combination of complete 8 and 12 hour shifts	Determine that the dates with 6 and 4 hour watches do not count toward the minimum requirements	
*2. Evaluate the watchstanding record for meeting the minimum number of 8 hour shifts	Determine that the required seven 8-hour watches were NOT stood	
*3 Evaluate the watchstanding record for meeting the minimum number of 12 hour shifts	Determine that the required five 12 hour watches were NOT stood	
*4 Determine the status of the license	Determine the license is inactive and the operator may NOT take shift.	
(CUE: You may stop here, you have met the termination criteria for this JPM.)	N/A	N/A

Comments:

Note: Any grade of UNSAT requires a comment.

JPM Overall Rating: _____
SAT/UNSAT

TASK CONDITIONS:

A reactor operator has stood the following shift schedule over the last three months:

Date	Hours	Position
10/01	6	RO
10/19	12	RO
11/21	12	PRO
11/29	6	PRO
12/15	12	RO
12/17	4	PRO
12/31	12	RO

INITIATING CUES:

Determine the status of the Reactor Operator's license and whether he may stand the watch as RO today, January 2nd .

TITLE: PARTIAL PROCEDURE PREPARATION

TASK PERFORMED BY: _____ EVALUATOR: _____

EVALUATOR SIGNATURE: _____ DATE: _____

DIRECTIONS TO EVALUATOR:

1. Provide copy of ST-6-001-761-1 at the beginning of the JPM
2. Provide copy of A-3 or access to A-3 once the cues have been given

EVALUATION METHOD :

PERFORM

EVALUATION LOCATION:

ANY

APPROXIMATE COMPLETION TIME:

15 MINUTES

IMPORTANCE RATING(S): SYSTEM NUMBER(S):

2.5 2.2.11

REFERENCES:

A-3, TEMPORARY CHANGES TO APPROVED PROCEDURES AND PARTIAL PROCEDURE USE

TASK STANDARD(S):

Procedure steps for BPVs 1-8 marked out

TASK CONDITIONS:

1. Unit 1 is in OPCON 1
2. ST-6-001-761-1 is to be re-performed for the No. 9 Bypass Valve only
3. The reason for the performance of the ST is for post-maintenance testing
4. All other bypass valves are operable

INITIATING CUES:

The Control Room Supervisor has directed you to prepare ST-6-001-761-1, MAIN TURBINE BYPASS VALVE EXERCISING for partial execution on the No. 9 Bypass Valve up to the point where it is ready for SQR review.

Critical Element(s) indicated by "*" in Performance Checklist.

PERFORMANCE CHECKLIST:

STEP	STANDARD	SAT/UNSAT
(CUE): Provide copy of ST and copy of A-3 to candidate		
*1. The preparer shall enter "PARTIAL" on the first page	"PARTIAL" entered on the cover sheet	
*2. Preparer shall mark out unnecessary steps, sections or pages...	Step 4.3.3 BPV 1-8 marked out with lineouts or "X"	
3. ...and initial and date each mark out	Initials and date entered next ot the marked out steps	
2. Preparer shall mark out unnecessary steps, sections or pages...	Attachment 1 (Restoration) BPV 1-8 marked out with lineouts or "X"	
3. ...and initial and date each mark out	Initials and date entered next to the marked out steps	
4. Preparer shall enter name, initials and date in the procedure comments section. (i.e. prepared by: name, initials, date)	Name, initials, and date entered in the comments section of the cover sheet	
(CUE: You may stop here, you have met the termination criteria for this JPM.)	N/A	N/A

Comments:

Note: Any grade of UNSAT requires a comment.

JPM Overall Rating: _____
SAT/UNSAT

TASK CONDITIONS:

1. Unit 1 is in OPCON 1
2. ST-6-001-761-1 is to be re-performed for the No. 9 Bypass Valve only
3. The reason for the performance of the ST is for post-maintenance testing
4. All other bypass valves are operable

INITIATING CUES:

The Control Room Supervisor has directed you to prepare ST-6-001-761-1, MAIN TURBINE BYPASS VALVE EXERCISING for partial execution on the No. 9 Bypass Valve up to the point where it is ready for SQR review.

TITLE: DETERMINE OFFGAS EFFLUENT ACTIVITY RELEASE RATE

TASK PERFORMED BY: _____ EVALUATOR: _____

EVALUATOR SIGNATURE: _____ DATE: _____

DIRECTIONS TO EVALUATOR:

1. Provide copy of GP-5, "STEADY STATE OPERATIONS" at the start of the JPM
2. Provide calculator to candidate if needed

EVALUATION METHOD :

PERFORM

EVALUATION LOCATION:

ANY

APPROXIMATE COMPLETION TIME:

15 MINUTES

IMPORTANCE RATING(S): SYSTEM NUMBER(S):

2.7 2.3.11

REFERENCES:

GP-5, "STEADY STATE OPERATIONS"

TASK STANDARD(S):

Average pre-treatment release rate calculated to be 4619 to 5105 (4862 +/- 5%)

TASK CONDITIONS:

1. Unit 1 is in OPCON 1
2. RR-26-1R601 "A" SJAE Discharge Rad Monitor reads 110 mRem/hr
3. RR-26-1R601 "B" SJAE Discharge Rad Monitor reads 131 mRem/hr
4. FR-69-*15 (scfm) Point 2 Reads 35 scfm

The following placard is mounted to the 10C600 panel:

U/1 OFF GAS
SUM OF SIX 5060

K"A" 1.18
K"B" 1.13

DATE: 10/6/02

INITIATING CUES:

The CRS has directed you to calculate the average offgas pre-treatment radioactivity release rate per GP-5, "STEADY STATE OPERATIONS"

Critical Element(s) indicated by "*" in Performance Checklist.

PERFORMANCE CHECKLIST:

STEP	STANDARD	SAT/UNSAT
1. CALCULATE Off-gas release rates for the A **AND** B channels using the following equation: RR = RL x F x K Where: RR = Release Rate for A(B) (µCi/second) RL = Radiation Level of SJAE as indicated on RR-26-*R601 (mRem/hour) F = Off-gas flow as indicated by FR-69-*15 (scfm), Point 2 Conversion Factor for A(B) data (posted on panel *0C600)	N/A	
2. **Channel A** (Point 1) RR =____ mRem/hour x ____CFM x ____K__ RR = _____ µCi/second	Calculate "A" channel release = 4543 uci/sec 110 x 35 x 1.18 = 4543	
3. **Channel B** (Point 2) RR =____ mRem/hour x ____CFM x ____K__ RR = _____ µCi/second	Calculate "B" channel release = 5181 uci/sec 131 x 35 x 1.13 = 5181	

STEP	STANDARD	SAT/UNSAT
*4. CALCULATE the average of the A AND B channel values to obtain the average Off-gas pretreatment release rate as follows: ARR = (RR "A") + (RR "B") / 2 Where: ARR = Average Off-gas Pretreatment Release Rate (μCi/second) RR "A" = Release Rate value for "A" Channel (μCi/second) RR "B" = Release Rate value for "B" Channel (μCi/second) ARR = ( ) + ( ) / 2 ARR = _____ μCi/second	Calculate the average release rate ARR= (4543 +5181)/2 = 4862 uCi/sec Acceptable band is 4619 to 5105 (4862 +/- 5%)	
(CUE: You may stop here, you have met the termination criteria for this JPM.)	N/A	N/A

Comments:

Note: Any grade of UNSAT requires a comment.

JPM Overall Rating: _____
SAT/UNSAT

TASK CONDITIONS:

1. Unit 1 is in OPCON 1
2. RR-26-1R601 "A" SJAE Discharge Rad Monitor reads 110 mRem/hr
3. RR-26-1R601 "B" SJAE Discharge Rad Monitor reads 131 mRem/hr
4. FR-69-*15 (scfm) Point 2 Reads 35 scfm

The following placard is mounted to the 10C600 panel:

U/1 OFF GAS
SUM OF SIX 5060

K"A" 1.18
K"B" 1.13

DATE: 10/6/02

INITIATING CUES:

The CRS has directed you to calculate the average offgas pre-treatment radioactivity release rate per GP-5, "STEADY STATE OPERATIONS"

TITLE: INITIATE SITE EVACUATION

TASK PERFORMED BY: _____ EVALUATOR: _____

EVALUATOR SIGNATURE: _____ DATE: _____

DIRECTIONS TO EVALUATOR:

1. Provide ERP-120 at the start of the JPM

EVALUATION METHOD :

PERFORM

EVALUATION LOCATION:

SIMULATOR

APPROXIMATE COMPLETION TIME:

15 MINUTES

IMPORTANCE RATING(S):	SYSTEM NUMBER(S):
2.9	2.4.29

REFERENCES:

ERP-120, STATION EVACUATION

TASK STANDARD(S):

Alarm activated for entire plant and announcement made to evacuate to Pottstown Limerick Airport

TASK CONDITIONS:

1. A Site Area Emergency drill has been declared
2. Drill conditions require a site evacuation to the Pottstown Limerick Airport
3. Individuals will exit via the front gate

INITIATING CUES:

The Control Room Supervisor has directed you to sound the site evacuation alarm for the entire plant and make the plant announcement for evacuation per ERP-120, STATION EVACUATION, Step 2.3.1

Critical Element(s) indicated by "*" in Performance Checklist.

PERFORMANCE CHECKLIST:

	STEP	STANDARD	SAT/UNSAT
1.	Set the Siren tone generator to the SIREN (Preferred) Position	Switch set to SIREN	
*2.	Pull out "EVACUATION ALARM AND RIVER WARNING SELECT" switch located on MCR Panel 00C650 AND rotate to desired position THEN push selector switch in A. CONT 1 - Sounds alarm in Unit 1 primary containment only. B. CONT 2 - Sounds alarm in Unit 2 primary containment only. C. PLANT ALARM - Sounds alarm in entire plant.	Set switch to PLANT ALARM and push back in to sound the alarm	
3.	Sound alarm for approximately 30 seconds	Sound alarm for approximately 30 seconds	
*4.	Return "EVACUATION ALARM AND RIVER WARNING SELECT" switch to "OFF" position to silence alarm.	Switch selected to OFF	

STEP	STANDARD	SAT/UNSAT
*5. WHEN alarms are silent, THEN announce over the Priority Page System: "ATTENTION ALL PERSONNEL. THIS (IS/IS NOT) A DRILL. THIS (IS/IS NOT A DRILL). A SITE EVACUATION HAS BEEN ORDERED BY THE EMERGENCY DIRECTOR. DESIGNATED EMERGENCY RESPONSE PERSONNEL REPORT TO ASSIGNED ASSEMBLY AREA OR FACILITY. ALL OTHER PERSONNEL EVACUATE THE SITE IMMEDIATELY. EVACUATING PERSONNEL SHALL: A. EXIT THE PAB VIA THE TSC GUARD STATION EXIT LANES B. EXIT THE SITE VIA (THE FRONT GATE USING EVERGREEN ROAD AND/OR THE BACK GATE USING LONGVIEW ROAD). C. REASSEMBLE AT (CROMBY GENERATING STATION/OR POTTSTOWN-LIMERICK AIRPORT)_____ THIS (IS/IS NOT) A DRILL. THIS (IS/IS NOT) A DRILL."	Announcement made per the script with the following critical elements: • Exit via the front gate • Re-assemble at the Pottstown – Limerick Airport It is not critical that the other portions are exactly verbatim **NOTE:** **The procedure requires the Operator to repeat the alarm and announcement. The JPM is terminated in the next step following the FIRST announcement**	
(CUE: You may stop here, you have met the termination criteria for this JPM.)	N/A	N/A

Comments:

Note: Any grade of UNSAT requires a comment.

JPM Overall Rating: _____
SAT/UNSAT

TASK CONDITIONS:

1. A Site Area Emergency drill has been declared
2. Drill conditions require a site evacuation to the Pottstown Limerick Airport
3. Individuals will exit via the front gate

INITIATING CUES:

The Control Room Supervisor has directed you to sound the site evacuation alarm for the entire plant and make the plant announcement for evacuation per ERP-120, STATION EVACUATION, Step 2.3.1

TITLE: DETERMINE COMPENSATORY ACTIONS FOR BARRIER BREACH

TASK PERFORMED BY: _____ (SRO ONLY) EVALUATOR: _____

EVALUATOR SIGNATURE: _____ DATE: _____

DIRECTIONS TO EVALUATOR:

1. Provide A-C-134 at the start of the JPM

EVALUATION METHOD :

PERFORM

EVALUATION LOCATION:

ANY

APPROXIMATE COMPLETION TIME:

15 MINUTES

IMPORTANCE RATING(S):	SYSTEM NUMBER(S):
3.3	2.2.10

REFERENCES:

1. A-C-134, CONTROL OF HAZARD BARRIERS
2. A-C-134-5, CONTROL OF HAZARD DOORS/HATCHES/PANELS AT LIMERICK GENERATING STATION

TASK STANDARD(S):

Barrier breach identified as requiring Tech Spec compensatory actions

TASK CONDITIONS:

1. OPCON 1
2. Door 73 on the Unit 2 177' elevation of Unit 2 has been damaged and cannot be closed. Maintenance has reported that the door must be removed and a new hinge welded in place.
3. No barrier breach permit currently exists for this door
4. Maintenance has reported that the repairs are expected to take four days due to parts availability

INITIATING CUES:

Determine any required actions to support Door 73 being propped open for repair and the most limiting Limiting Conditions for Operation due to the above conditions.

Critical Element(s) indicated by "*" in Performance Checklist.

PERFORMANCE CHECKLIST:

	STEP	STANDARD	SAT/UNSAT
(CUE): Provide A-C-134 and A-C-134-5			
1.	(Step 7.4.2) Review Barrier Breach Book to determine if a BBP exists for this breach	N/A	
2.	If a BBP does not exist for a door/hatch breach, Shift shall:	N/A	
3.	Return door/hatch to its closed position	N/A	
4.	If breach is in a security barrier, contact Security	N/A	
5	If door/hatch can not be closed, review Exhibit A-C-134-5 [LGS] or Exhibit A-C-134-6 [PBAPS]	Review A-C-134-5 and determine that door 73 is a hazard door	
*6	to determine what compensatory measures are needed for the breach	Determine that a fire watch must be posted Determine that "2A" and "2C" RHR Pumps must be declared inop Determine that the most limiting required actions are to restore the door to operable within 72 hours or be in HOT SHUTDOWN within the next 12 hours and COLD SHUTDOWN in the following 24 hours (LCO 3.6.2.3 – SP Cooling)	
(CUE: You may stop here, you have met the termination criteria for this JPM.)		N/A	N/A

Comments:

Note: Any grade of UNSAT requires a comment.

JPM Overall Rating: _____
SAT/UNSAT

TASK CONDITIONS:

1. OPCON 1
2. Door 73 on the Unit 2 177' elevation of Unit 2 has been damaged and cannot be closed. Maintenance has reported that the door must be removed and a new hinge welded in place.
3. No barrier breach permit currently exists for this door
4. Maintenance has reported that the repairs are expected to take four days due to parts availability

INITIATING CUES:

Determine any required actions to support Door 73 being propped open for repair and the most limiting Limiting Conditions for Operation due to the above conditions.

TITLE: LIQUID RAD RELEASE INOP MONITOR ACTIONS

TASK PERFORMED BY: _____ (SRO ONLY) EVALUATOR: _____

EVALUATOR SIGNATURE: _____ DATE: _____

DIRECTIONS TO EVALUATOR:

1. Provide access to Offsite Dose Calculation Manual (ODCM) at start of JPM

EVALUATION METHOD :

PERFORM

EVALUATION LOCATION:

ANY

APPROXIMATE COMPLETION TIME:

15 MINUTES

IMPORTANCE RATING(S): 2.9

SYSTEM NUMBER(S): 2.3.3

REFERENCES:

LGS Offsite Dose Calculation Manual
LGS ST-5-061-570-0, RADWASTE DISCHARGE PERMIT

TASK STANDARD(S):

Determine that radwaste discharges may continue provided the ODCM or ST compensatory actions are taken

TASK CONDITIONS:

1. Radwaste and Chemistry are preparing to make a liquid radwaste discharge to the cooling tower blowdown line
2. Radwaste effluent rad monitor 00S368 has been inoperable for the past 24 hours

INITIATING CUES:

You are directed to determine the actions necessary if the release is to proceed, and any time limits associated with those actions

Critical Element(s) indicated by "*" in Performance Checklist.

PERFORMANCE CHECKLIST:

STEP	STANDARD	SAT/UNSAT
ODCM 3.2.2 1. Locate ODCM Liquid Effluent Monitors section. Gross Radioactivity Monitors Providing Automatic Termination of Release *Liquid Radwaste Effluent Line*	Determine that the monitor is required per the ODCM and the minimum required channels is one. (Note- There is only one monitor installed)	
2. Action 100- With less than the Minimum Required Channels operable, effluent releases may continue for up to 14 days provided that prior to initiating a release...	Determine that Action 100 applies and releases may continue for 14 days	
*3. At least two independent samples are analyzed in accordance with Table I3.2-3, and	Determine that two independent chemistry samples of the effluent are required	
*4. At least two technically qualified members of the facility staff independently verify the release rate calculations and discharge line valving	Determine that two chemistry technicians are required to verify the calculations and two operators are required to verify the valve lineup	
(CUE: You may stop here, you have met the termination criteria for this JPM.)	N/A	N/A

Comments:

Note: Any grade of UNSAT requires a comment.

JPM Overall Rating: _____
SAT/UNSAT

Review page from ODCM (Delete after review)

A-3 SRO ODCM Excerpt

TABLE I3.2-1

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

	INSTRUMENT	MINIMUM CHANNELS OPERABLE	ACTION
1.	Gross Radioactivity Monitors Providing Automatic Termination of Release		
	a. Liquid Radwaste Effluent Line	1	100
	b. A/B RHR Service Water Effluent Line *	1/loop	101
2.	Gross Radioactivity Monitors Not Providing Automatic Termination of Release		
	a. Service Water Effluent Line	1	101
3	Flow Rate Measurement Devices		
	a. Liquid Radwaste Effluent Line	1	102
	b. Discharge Line	1	102

* Termination of the release is accomplished by auto trip of the RHRSW pumps and remote manual closure of isolation valves.

ACTION STATEMENTS

Action 100- With less than the Minimum Required Channels operable, effluent releases may continue for up to 14 days provided that prior to initiating a release:

a. At least two independent samples are analyzed in accordance with Table I3.2-3, and

b. At least two technically qualified members of the facility staff independently verify the release rate calculations and discharge line valving;

Otherwise, suspend release of radioactive effluents via this pathway.

TASK CONDITIONS:

1. Radwaste and Chemistry are preparing to make a liquid radwaste discharge to the cooling tower blowdown line
2. Radwaste effluent rad monitor 00S368 has been inoperable for the past 24 hours

INITIATING CUES:

You are directed to determine the actions necessary if the release is to proceed, and any time limits associated with those actions

TITLE: DETERMINE EMERGENCY ACTION LEVEL

TASK PERFORMED BY: _____ (SRO ONLY) EVALUATOR: _____

EVALUATOR SIGNATURE: _____ DATE: _____

DIRECTIONS TO EVALUATOR:

1. Provide ERP-101 or access to the procedure at the beginning of the JPM

EVALUATION METHOD :

PERFORM

EVALUATION LOCATION:

ANY

APPROXIMATE COMPLETION TIME:

15 MINUTES (Time Critical)

IMPORTANCE RATING(S): 4.1

SYSTEM NUMBER(S): 2.4.41

REFERENCES:

ERP-101, CLASSIFICATION OF EMERGENCIES

TASK STANDARD(S):

Site Area Emergency identified

TASK CONDITIONS:

1. Unit 1 has been scrammed due to LOCA
2. The mechanical vacuum pump was started and caught fire. The fire burned for 20 minutes before being extinguished
3. All rods are inserted
4. RPV level is – 60 inches
5. Drywell pressure is 45 psig and rising
6. Drywell post – LOCA monitors read 30 R/hr

INITIATING CUES:

This is a time critical JPM

You are directed to classify the event and give the reason for the classification

Critical Element(s) indicated by "*" in Performance Checklist.

PERFORMANCE CHECKLIST:

Note: Begin the 15 minute time limit after the candidate has reviewed the task conditions

STEP		STANDARD	SAT/UNSAT
1.	Review Emergency Action Levels for categories selected	Select Fire (8.2) and Fission Product Barrier (3.0) EALs	
2.	Classify the event based on selected categories and most severe EALs	Determine the classification based on the fire is limited to an Unusual Event	
*3	Classify the event based on selected categories and most severe EALs	Determine the most severe EAL is Site Area Emergency based on Reactor Coolant System loss and Primary Containment Potential loss within 15 minutes	
(CUE: You may stop here, you have met the termination criteria for this JPM.)		N/A	N/A

Comments:

Note: Any grade of UNSAT requires a comment.

JPM Overall Rating: _____
SAT/UNSAT

TASK CONDITIONS:

1. Unit 1 has been scrammed due to LOCA
2. The mechanical vacuum pump was started and caught fire. The fire burned for 20 minutes before being extinguished
3. All rods are inserted
4. RPV level is – 60 inches
5. Drywell pressure is 45 psig and rising
6. Drywell post – LOCA monitors read 30 R/hr

INITIATING CUES:

This is a time critical JPM

You are directed to classify the event and give the reason for the classification