OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: HOPE CREEK

SYSTEM: Knowledge of the process for controlling temporary changes.

TASK: Initiate administrative requirements for installing a floor drain plug

TASK NUMBER: 294000 G 2.2.11

JPM NUMBER: 2001-NRC-LSRO-Admin 2

ALTERNATE PATH: ☐

APPLICABILITY:
EO ☐ **RO** ☐ **SRO** [X]

K/A NUMBER:	294000	G2.2.11
IMPORTANCE FACTOR:	2.5	3.4
	RO	**SRO**

EVALUATION SETTING/METHOD: CONTROL ROOM/SIMULATOR – PERFORM

REFERENCES: NC.DE-AP.ZZ-0030 Rev 0, SH.OP-AP.ZZ-0015 Rev 9

TOOLS AND EQUIPMENT: Hope Creek P&ID's

VALIDATED JPM COMPLETION TIME: 45 min.

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

APPROVED:

N/A		
BARGAINING UNIT REPRESENTATIVE	**TRAINING SUPERVISOR**	**OPERATIONS MANAGER**

CAUTION: **No plant equipment shall be operated during the performance of a JPM without the following:**

1. **Permission from the OS Or Unit CRS;**
2. **Direct oversight by a qualified individual (determined by the individual granting permission based on plant conditions).**
3. **Verification of the "as left" condition by a qualified individual.**

ACTUAL JPM COMPLETION TIME: _____

ACTUAL TIME CRITICAL COMPLETION TIME: N/A

JPM PERFORMED BY: _____ **GRADE:** ☐ **SAT** ☐ **UNSAT**

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: _____ **DATE:** _____

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Knowledge of the process for controlling temporary changes.

TASK: Initiate administrative requirements for installing a floor drain plug

TASK NUMBER: 294000 G 2.2.11

INITIAL CONDITIONS:

- You are the Refueling SRO on a night shift
- Work involving a large quantity of solvents will be performed on the Refueling Floor, Reactor Head Wash Down Area 4705
- To prevent the solvents from reaching the Radwaste System, a temporary floor drain plug will be installed in floor drain for the Reactor Head Wash Down Area 4705
- SAP is currently not available

INITIATING CUE:

Complete the administrative requirements for installing the floor drain plug

Successful Completion Criteria:
1. **All critical steps completed.**
2. **All sequential steps completed in order.**
3. **All time-critical steps completed within allotted time.**
4. **JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made (and NRC concurrence is obtained).**

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: Knowledge of the process for controlling temporary changes
TASK: Initiate administrative requirements for installing a floor drain plug

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Operator obtains P&ID Drawing M-97-1 Sheet 2 and locates drain	Operator locates the drain on P&ID M-97-1 Sheet 2 at location H-3		
		Operator obtains procedure NC.DE-AP.ZZ-0030	Operator obtains the correct procedure.		
			Operator reviews procedure		
		Operator determines beginning step of the procedure	Operator determines correct beginning step to be 5.1		
	5.1.10	Floor drain plugging shall be considered a TMOD unless the plugging is performed in accordance with an approved procedure and the plugs are removed at the completion of the associated work. Attachment 1 (Controlling Temporary Floor Drain Plugs (Hope Creek)) provides guidance for plugging floor drains at Hope Creek Station.	Operator determines step 5.1.10 is applicable to this situation and refers to Attachment 1		
*	Attach-ment 1	Controlling Temporary Floor Drain Plugs (Hope Creek) START TIME: _____	Operator reads Attachment 1 Operator determines a TMOD is NOT required		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: Knowledge of the process for controlling temporary changes
TASK: Initiate administrative requirements for installing a floor drain plug

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	1.3	Form – 7 (Temporary Floor Drain Plug Log (Hope Creek)) shall be maintained by the Nuclear Technical Supervisor (NTS) – Radwaste and checked against all proposed drain plugs.	Operator contacts the Nuclear Technical Supervisor (NTS) –Radwaste to check for other installed drain plugs logged on Form - 7 prior to the installation of the floor plug. **Examiners Cue: "No other Floor Drain plugs are installed at this time"**		
*	2.1	The Requesting Supervisor shall initiate a Tagging Request in accordance with NAP-15, Safety Tagging Program, for each floor drain to be plugged and submit the request to the NTS – Radwaste STOP TIME _____	The operator initiates a Tagging Request IAW NA-AP-0015. Since SAP is not available, the operator uses Work Clearance Document forms from SH.OP-AP.ZZ-0015 to initiate Tagging for the floor plug. Examiners Cue: "This JPM is complete"		

Terminating Cue: This JPM is complete.

INITIAL CONDITIONS:

- You are the Refueling SRO on a night shift
- Work involving a large quantity of solvents will be performed on the Refueling Floor, Reactor He Wash Down Area 4705
- To prevent the solvents from reaching the Radwaste System, a temporary floor drain plug will be installed in floor drain for the Reactor Head Wash Down Area 4705
- SAP is currently not available

INITIATING CUE:

Complete the administrative requirements for installing the floor drain plug

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: HOPE CREEK

SYSTEM: 234000 Fuel Handling Equipment

TASK: Perform Fuel Grapple Functional Test IAW HC.OP-FT.KE-0001 Section 5.2.2.A through 5.2.2.X (Alternate Path)

TASK NUMBER: 234000 A2.01

JPM NUMBER: 2001-NRC-LSRO-S1

ALTERNATE PATH: [X]

APPLICABILITY: EO [ ] RO [X] SRO [X]

	K/A NUMBER:	234000 A2.01	
	IMPORTANCE FACTOR:	3.3	3.7
		RO	SRO

EVALUATION SETTING/METHOD: REFUELING PLATFORM – PERFORM / SIMULATE

REFERENCES: HC.OP-FT.KE-0001(Q) Rev 14

TOOLS AND EQUIPMENT: Refueling Platform, Dummy Bundle

VALIDATED JPM COMPLETION TIME: 60 min.

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

APPROVED:

N/A		
BARGAINING UNIT REPRESENTATIVE	TRAINING SUPERVISOR	OPERATIONS MANAGER

CAUTION: **No plant equipment shall be operated during the performance of a JPM without the following:**

1. **Permission from the OS Or Unit CRS;**
2. **Direct oversight by a qualified individual (determined by the individual granting permission based on plant conditions).**
3. **Verification of the "as left" condition by a qualified individual.**

ACTUAL JPM COMPLETION TIME: _____

ACTUAL TIME CRITICAL COMPLETION TIME: N/A

JPM PERFORMED BY: _____ **GRADE:** [ ] **SAT** [ ] **UNSAT**

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: _____ **DATE:** _____

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: 234000 Fuel Handling Equipment

TASK: Perform Fuel Grapple Functional Test IAW HC.OP-FT.KE-0001 Section 5.2.2.A through 5.2.2.X (Alternate Path)

TASK 234000 A2.01 Interlock failure

INITIAL CONDITIONS:

1. You are the Refueling Bridge operator
2. A retest of the Fuel Grapple Hoist must be performed IAW HC.OP-FT.KE-0001 Section 5.2.2 following adjustment of the Main Hoist Emergency Brake
3. The Reactor is in Operational Condition 4 preparing for refueling
4. A Spotter is standing by
5. The Dummy Bundle is located at Fuel Pool Location **AD-28**
6. The Refuel Platform is in a standby lineup, powered up, and warmed up > ½ hour

INITIATING CUE:

Perform the entire Section 5.2.2 of HC.OP-FT.KE-0001(Q)

Successful Completion Criteria:
1. **All critical steps completed.**
2. **All sequential steps completed in order.**
3. **All time-critical steps completed within allotted time.**
4. **JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made (and NRC concurrence is obtained).**

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: 234000 Fuel Handling Equipment
TASK: Perform Fuel Grapple Functional Test IAW HC.OP-FT.KE-0001 Section 5.2.2.A through 5.2.2.X (Alternate Path)

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Operator obtains procedure HC.OP-FT.KE-0001.	Operator obtains the correct procedure.		
		Operator reviews precautions and limitations.	Operator reviews precautions and limitations. **Examiner Cue: If excessive time is taken reviewing precautions and limitations, inform operator that all are satisfied.**		
		Operator determines beginning step of the procedure	Operator determines correct beginning step to be 5.2.2		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: 234000 Fuel Handling Equipment

TASK: Perform Fuel Grapple Functional Test IAW HC.OP-FT.KE-0001 Section 5.2.2.A through 5.2.2.X (Alternate Path)

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	5.2.2	Fuel Grapple Hoist Functional Test START TIME: _____	**Examiner Note: All operations for this JPM are performed on the Refueling Platform.** **Initialing steps is not critical.**		
	5.2.2.A	Using the PLATFORM AND TROLLEY control operators, MANEUVER the Fuel Grapple so that it is positioned approximately over the Dummy Bundle.	**A generic Fuel Movement sheet is provided where MOVE Step #1 is the DUMMY BUNDLE from the normal storage location to an empty spare Fuel Pool location.** **Move Step #2 is from the spare location back to the normal storage location.** **Examiners Cues proceeded by a $ are given ONLY if the evolution is simulated.** Operator uses the PLATFORM AND TROLLEY control operators to maneuver the Fuel Grapple so that it is positioned over the Dummy Bundle at Fuel Pool location **AD-28**. **$ Examiner Cue: The grapple is positioned over the location stated**		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: 234000 Fuel Handling Equipment

TASK: Perform Fuel Grapple Functional Test IAW HC.OP-FT.KE-0001 Section 5.2.2.A through 5.2.2.X (Alternate Path)

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	5.2.2.B	SUBMERGE, POSITION AND ENERGIZE an underwater lamp to illuminate the lifting handle of the Dummy Bundle.	Operator ensures the grapple lights are submerged, and then turns on the lights. **$ Examiner Cue: The grapple lights are on.**		
*	5.2.2.C	POSITION the Fuel Grapple directly over the Dummy Bundle by using the Refuel Platform Traverse Joy Stick (fine positioning, 4-way) control switch. VERIFY the Traverse Joy Stick FORWARD and REVERSE and LEFT and RIGHT position controls function successfully AND INITIAL Attachment 2.	Operator uses the PLATFORM AND TROLLEY Traverse Joy stick Forward, Reverse, Left and Right position controls to maneuver the Fuel Grapple so that it is positioned directly over the Dummy Bundle at Fuel Pool location **AD-28**. **$ Examiner Cue: The controls respond to the directions stated. The grapple is positioned over the location stated.**		
	5.2.2.D	Using the GRAPPLE control operator, LOWER the Fuel Grapple UNTIL it is approximately one foot above the handle of the Dummy Bundle.	Operator lowers the grapple until it is approximately one foot over the Dummy bundle. **$ Examiner Cue: The controls respond to the directions stated. The grapple is positioned approximately one foot above the handle of the dummy bundle.**		
*	5.2.2.E	ROTATE the Fuel Grapple into alignment WITH the Dummy Bundle handle.	Operator rotates the grapple until it is aligned with the Dummy bundle handle. **$ Examiner Cue: The grapple is aligned as stated.**		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: 234000 Fuel Handling Equipment

TASK: Perform Fuel Grapple Functional Test IAW HC.OP-FT.KE-0001 Section 5.2.2.A through 5.2.2.X (Alternate Path)

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	5.2.2.F	Using the GRAPPLE control operator, slowly LOWER the Fuel Grapple onto the Dummy Bundle.	Operator slowly lowers the grapple onto the Dummy bundle. **$ Examiner Cue: The controls respond to the directions stated.**		
*	5.2.2.G	WHEN the Fuel Grapple is fully lowered on the Dummy Bundle, VERIFY the following AND INITIAL Attachment 2. 1. Fuel Grapple downward motion automatically stops. 2. SLACK CABLE light is on.	Operator verifies the grapple downward motion automatically stops and the SLACK CABLE light comes on. Operator Initials Attachment 2. **$ Examiner Cue: The controls respond as stated. The SLACK CABLE light comes on.**		
*	5.2.2.H	PRESS the GRAPPLE ENGAGE/RELEASE Switch to the ENGAGE position. CHECK the grapple ENGAGED light is on.	Operator presses GRAPPLE ENGAGE/ Release switch to the ENGAGE position **$ Examiner Cue: The ENGAGE light comes on.**		
	5.2.2.I	RECORD the initial Refuel Platform (Bridge), Trolley AND Fuel Grapple values from the digital position indicators on Attachment 2.	Operator records the initial Refuel Platform (Bridge), Trolley and Fuel Grapple values from the digital position indicators on Attachment 2		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: 234000 Fuel Handling Equipment
TASK: Perform Fuel Grapple Functional Test IAW HC.OP-FT.KE-0001 Section 5.2.2.A through 5.2.2.X (Alternate Path)

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	5.2.2.J	VERIFY that the Video Indexing System indicates the correct storage location by comparing the position indicated on X and Y monitors with the X and Y fuel rack marking AND INITIAL Attachment 2.	Operator verifies that the Video Indexing System indicates the correct storage location by comparing the position indicated on the X and Y monitors with the X and Y fuel rack marking and initials attachment 2. **$ Examiner Cue: The X and Y readings match the fuel rack marking.**		
*	5.2.2.K	RAISE the Fuel Grapple with attached Dummy Bundle using the GRAPPLE control operator in the RAISE position, UNTIL the Fuel Grapple is fully raised. VERIFY the following AND INITIAL Attachment 2.	Operator raises the Dummy bundle using the RAISE control until the Fuel Grapple is fully raised. **$ Examiner Cue: The Full Grapple is moving in the direction stated.**		
	5.2.2.K.1 5.2.2.K.2	1. Fuel Grapple automatically stops without driving into its overtravel limit switch. 2. GRAPPLE NORMAL UP light is on.	Operator observes the Fuel Grapple automatically stops and NORMAL UP light is on. **$ Examiner Cue: The Grapple has stopped. The NORMAL UP light is on.**		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: 234000 Fuel Handling Equipment
TASK: Perform Fuel Grapple Functional Test IAW HC.OP-FT.KE-0001 Section 5.2.2.A through 5.2.2.X (Alternate Path)

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	5.2.2.L	Using the PLATFORM AND TROLLEY control operators, **MANEUVER** the loaded Fuel Grapple to a Spent Fuel Pool location away from the Dummy Bundle storage location.	Operator moves grapple away from AD-28 location. **$ Examiner Cue: The trolley and platform respond as stated.**		
	5.2.2.M	Using the PLATFORM AND TROLLEY control operators, **MANEUVER** the loaded Fuel Grapple to the coordinates listed in procedure Step 5.2.2.I.	Operator moves grapple back to AD-28 location. **$ Examiner Cue: The trolley and platform respond as stated.** **Examiner Cue: Stop movement one cell short of the designated location.**		
	5.2.2.N	**ROTATE** the Fuel Grapple to align the Dummy Bundle WITH its storage location.	Operator rotates bundle to align with cell location. **$ Examiner Cue: The Dummy Bundle is aligned as stated.**		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: 234000 Fuel Handling Equipment

TASK: Perform Fuel Grapple Functional Test IAW HC.OP-FT.KE-0001 Section 5.2.2.A through 5.2.2.X (Alternate Path)

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	5.2.2.O	Slowly **LOWER** the Dummy Bundle by using the GRAPPLE control operator in the LOWER position. **ADJUST** Refuel Platform position with the Traverse Joy Stick control switch to fine tune alignment IF required. **VERIFY** the GRAPPLE NORMAL UP light is off AND **INITIAL** Attachment 2.	**Examiner Cue: Use the Traverse Joy Stick to position the bundle over location AD-28.** Operator uses the Traverse Joy Stick to position the bundle over location AD-28 **$ Examiner Cue: The grapple responds as stated.** Operator lowers bundle into location AD-28 Operator verifies Grapple Normal Up light extinguishes **$ Examiner Cue: The grapple indications respond as stated.**		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: 234000 Fuel Handling Equipment

TASK: Perform Fuel Grapple Functional Test IAW HC.OP-FT.KE-0001 Section 5.2.2.A through 5.2.2.X (Alternate Path)

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	5.2.2.P	WHEN the Dummy Bundle is fully seated in its storage location, **VERIFY** the following AND **INITIAL** Attachment 2. 1. Fuel Grapple automatically stops lowering. 2. SLACK CABLE light is on. 3. Load cell indicates less than 50 pounds. STOP TIME _____	Operator lowers bundle to fully seated position. **$ Examiner Cue: The grapple indications respond as stated.** **Examiner Cue: This JPM is complete.**		

Terminating Cue: This JPM is complete.

INITIAL CONDITIONS:

1. You are the Refueling Bridge operator
2. A retest of the Fuel Grapple Hoist must be performed IAW HC.OP-FT.KE-0001 Section 5.2.2 following replacement of the Traverse Joy Stick on the Trolley control panel
3. The Reactor is in Operational Condition 4 preparing for refueling
4. A Spotter is standing by
5. The Dummy Bundle is located at Fuel Pool Location **AD-28**
6. The Refuel Platform is in a standby lineup, powered up, and warmed up > ½ hour

INITIATING CUE:

Perform the entire Section 5.2.2 of HC.OP-FT.KE-0001(Q)

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: HOPE CREEK

SYSTEM: 234000 Fuel Handling Equipment

TASK: Manually lower Fuel Bundle IAW HC.OP-SO.KE-0001(Q) Attachment 2 (Alternate Path)

TASK NUMBER: 234000 A2.03

JPM NUMBER: 2001-NRC-LSRO-S2

ALTERNATE PATH: [X]

APPLICABILITY:
EO [ ] RO [X] SRO [X]

K/A NUMBER:	234000	A2.03
IMPORTANCE FACTOR:	2.8	3.1
	RO	SRO

EVALUATION SETTING/METHOD: REFUELING PLATFORM – PERFORM / SIMULATE

REFERENCES: HC.OP-SO.KE-0001 Rev. 25; HC.RE-FR.ZZ-0001 Attachment 1

TOOLS AND EQUIPMENT: Refueling Platform, Dummy Bundle, Move Sheet

VALIDATED JPM COMPLETION 30 min.

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

APPROVED:

N/A		
BARGAINING UNIT REPRESENTATIVE	TRAINING SUPERVISOR	OPERATIONS MANAGER

CAUTION: No plant equipment shall be operated during the performance of a JPM without the following:
1. Permission from the OS Or Unit CRS;
2. Direct oversight by a qualified individual (determined by the individual granting permission based on plant conditions).
3. Verification of the "as left" condition by a qualified individual.

ACTUAL JPM COMPLETION _____

ACTUAL TIME CRITICAL COMPLETION TIME: N/A

JPM PERFORMED BY: _____ GRADE: [ ] SAT [ ] UNSAT

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: _____ DATE: _____

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: 234000 Fuel Handling Equipment

TASK: Manually lower Fuel Bundle IAW HC.OP-SO.KE-0001(Q) Attachment 2 (Alternate Path)

TASK 234000 A2.03

INITIAL CONDITIONS:

- You are the Refueling Bridge operator
- A fuel bundle is being moved within the Fuel Pool
- The Reactor is in Operational Condition 4 preparing for refueling
- The Refuel Platform is in a standby lineup, powered up, and warmed up > ½ hour
- A Spotter and Refueling SRO are standing by
- The Dummy bundle is being used to simulate an irradiated fuel bundle

INITIATING CUE:

Place the fuel bundle in its normal storage location IAW the move sheet step #2.

Successful Completion Criteria:
1. **All critical steps completed.**
2. **All sequential steps completed in order.**
3. **All time-critical steps completed within allotted time.**
4. **JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made (and NRC concurrence is obtained).**

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: 234000 Fuel Handling Equipment
TASK: Manually lower Fuel Bundle IAW HC.OP-SO.KE-0001(Q) Attachment 2 (Alternate Path)

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Operator obtains procedure HC.OP-SO.KE-0001.	Operator obtains the correct procedure.		
		Operator reviews precautions and limitations.	Operator reviews precautions and limitations. **Examiner Cue: If excessive time is taken reviewing precautions and limitations, inform operator that all are satisfied.**		
		Operator determines beginning step of the procedure.	Operator determines correct beginning step to be 5.8.14 of HC.OP-SO.KE-0001(Q)		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: 234000 Fuel Handling Equipment
TASK: Manually lower Fuel Bundle IAW HC.OP-SO.KE-0001(Q) Attachment 2 (Alternate Path)

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		START TIME: _____	**Examiner Note: All operations for this JPM are performed on the Refueling Platform.**		
	5.8	Fuel/Blade Guide Movement – Within Spent Fuel Storage Pool (other than Refuel Mode)	**Initialing steps is not critical**		
			A generic Fuel Movement sheet is provided where MOVE Step #1 is the DUMMY BUNDLE from the normal storage location to an empty spare Fuel Pool location. **Move Step #2 is from the spare location back to the normal storage location.**		
	5.8.14	USE the Refuel Platform AND Trolley Position Controls AND Position Indicating System to maneuver the Fuel Grapple to the target location listed on the Fuel Movement Sheet(s).	**Examiners Cues proceeded by a $ are given ONLY if the evolution is simulated.**		
			Operator uses the PLATFORM AND TROLLEY control operators to maneuver the Fuel Grapple so that it is positioned over Fuel Pool location **AD-28** in accordance to the fuel movement sheet.		
			$ Examiner Cue: "The controls respond to the directions stated."		

OPERATOR TRAINING PROGRAM **NAME:** _____

JOB PERFORMANCE MEASURE **DATE:** _____

SYSTEM: 234000 Fuel Handling Equipment

TASK: Manually lower Fuel Bundle IAW HC.OP-SO.KE-0001(Q) Attachment 2 (Alternate Path)

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	5.8.15	ENSURE the Fuel Grapple is at the correct Core OR Fuel Pool Coordinates. (REFER TO Note 5.8)	Operator ensures the grapple is positioned over Fuel Pool location **AD-28** in accordance to the fuel movement sheet. **$ Examiner Cue: "The grapple is positioned over the location stated."**		
*	5.8.16	ROTATE the Fuel Grapple AND attached fuel assembly/blade guide to attain direct alignment AND orientation with the target location. [CD-396Y]	Operator rotates the Fuel Grapple and attached fuel assembly to attain direct alignment and orientation with the target location. **$ Examiner Cue: "The grapple and fuel assembly are oriented and aligned over the location stated."**		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: 234000 Fuel Handling Equipment

TASK: Manually lower Fuel Bundle IAW HC.OP-SO.KE-0001(Q) Attachment 2 (Alternate Path)

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	5.8.17	Slowly LOWER the fuel assembly/blade guide into the target location using the Fuel Grapple hoist position control in the LOWER position.	Operator observes the cautions of 5.8.17 Operator begins to slowly lower the bundle. **Examiner Cue: "Power has just been lost to the refueling platform."** **Note – If this JPM is actually being performed, cue the applicant "The power loss is simulated."** **Examiner Cue: "The Control Room notifies the Refueling Crew that Fuel Pool Level is rapidly lowering."** **Examiner Cue: "Manually lower the bundle to its storage location"**		
	HC.OP-SO.KE-0001 Attach-ment 2	In the event of a Loss of Power to the Bridge or Hoist Motor Malfunction (burnout, short)	Operator determines correct procedure is HC.OP-SO.KE-0001 Attachment 2 beginning step to be 1.0		
	1.1	IF the power is lost, the Hoist electric motor brake AND emergency brake will engage.	Operator recognizes the Hoist electric motor brake and emergency brake are engaged.		
	1.2	MOVE the Bridge/Trolley to an appropriate cell location using the handwheels provided for the Bridge Drive and Trolley Drive	Operator recognizes the fuel bundle is over a safe location and properly aligned.		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: 234000 Fuel Handling Equipment
TASK: Manually lower Fuel Bundle IAW HC.OP-SO.KE-0001(Q) Attachment 2 (Alternate Path)

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	1.3	VERIFY the bundle is over an appropriate cell location.	Operator verifies bundle is over proper location **$ Examiner cue: "The grapple is oriented and aligned over the location stated."**		
*	1.4	ATTACH the handwheel on the West end of the Hoist Motor shaft AND SECURE it.	Operator takes precautions to prevent dropping hand-wheel while installing it on the West End of the Hoist Motor shaft and secures it.		
*	1.5	WITH one person holding the handwheel AND ready to lower the bundle, another person should release the emergency (safety) brake using the manual release on the brake.	Operator holds the hand-wheel while another operator simulates releasing the emergency brake. **Examiner Cue: "Another operator is stationed at the emergency brake. From here on the procedure will be simulated."**		
*	1.6	TAKE UP on the handwheel until the bundle starts to raise (approximately 3" bundle upward travel). This assures the handwheel has the load.	Operator simulates raising the Dummy bundle 3 inches by hand to assure the hand-wheel has the load. **Examiner Cue: "The Full Grapple is moving in the direction stated."**		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: 234000 Fuel Handling Equipment
TASK: Manually lower Fuel Bundle IAW HC.OP-SO.KE-0001(Q) Attachment 2 (Alternate Path)

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	1.7	While holding the handwheel, release the motor brake by pushing the lever located inside the East end of the motor housing down and to the side. This permits lowering the bundle with the handwheel. STOP TIME: _____	Operator tells 2nd operator to release the motor brake. **Examiner Cue: "The Motor Brake is released."** Operator discusses direction of rotation to lower the bundle.		

Terminating Cue: This JPM is complete. Another refueling Platform crew will return the Dummy Bundle to its storage location.

INITIAL CONDITIONS:

- You are the Refueling Bridge operator
- A fuel bundle is being moved within the Fuel Pool
- The Reactor is in Operational Condition 4 preparing for refueling
- The Refuel Platform is in a standby lineup, powered up, and warmed up > ½ hour
- A Spotter and Refueling SRO are standing by
- The Dummy bundle is being used to simulate an irradiated fuel bundle

INITIATING CUE:

Place the fuel bundle in its storage location IAW the move sheet step #2.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: HOPE CREEK

SYSTEM: 234000 Fuel Handling Equipment

TASK: Perform Mode Switch Refueling Interlock Test IAW HC.OP-ST.KE-0001 Section 5.2.1 through 5.2.7

TASK 234000 A2.01

JPM NUMBER: 2001-NRC-LSRO-S3

ALTERNATE PATH: ☐

APPLICABILITY
EO ☐ **RO** [X] **SRO** [X]

K/A NUMBER:	234000	A2.01
IMPORTANCE	3.3	3.7
	RO	**SRO**

EVALUATION SETTING/METHOD: REFUELING PLATFORM – SIMULATE

REFERENCES: HC.OP-ST.KE-0001(Q) rev 20

TOOLS AND EQUIPMENT: Refueling Platform

VALIDATED JPM COMPLETION TIME: 30 min.

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

APPROVED:

N/A		
BARGAINING UNIT REPRESENTATIVE	**TRAINING SUPERVISOR**	**OPERATIONS MANAGER**

CAUTION: **No plant equipment shall be operated during the performance of a JPM without the following:**
1. **Permission from the OS Or Unit CRS;**
2. **Direct oversight by a qualified individual (determined by the individual granting permission based on plant conditions).**
3. **Verification of the "as left" condition by a qualified individual.**

ACTUAL JPM COMPLETION TIME: _____

ACTUAL TIME CRITICAL COMPLETION TIME: N/A

JPM PERFORMED BY: _____ **GRADE:** ☐ **SAT** ☐ **UNSAT**

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: _____ **DATE:** _____

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: 234000 Fuel Handling Equipment

TASK: Perform Mode Switch Refueling Interlock Test IAW HC.OP-ST.KE-0001 Section 5.2.1 through 5.2.7

TASK 234000 A3.02 Interlock operation

INITIAL CONDITIONS:

1. You are the Refueling Bridge operator
2. A retest of the Mode Switch Refueling Interlock must be performed IAW HC.OP-ST.KE-0001 Section 5.2 following maintenance
3. The Reactor is in Operational Condition 4 preparing for refueling
4. A Spotter is standing by
5. All control rods are full in.
6. The Refuel Platform is in a standby lineup, powered up and warmed up > ½ hour
7. HC.MD-ST.KE-0001 is complete
8. Fuel Pool Level is in the normal band

INITIATING CUE:

Perform Section 5.2 of HC.OP-ST.KE-0001(Q) for the Mode Switch Refueling Interlock.

Successful Completion Criteria:
1. **All critical steps completed.**
2. **All sequential steps completed in order.**
3. **All time-critical steps completed within allotted time.**
4. **JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made (and NRC concurrence is obtained).**

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: 234000 Fuel Handling Equipment

TASK: Perform Mode Switch Refueling Interlock Test IAW HC.OP-ST.KE-0001 Section 5.2.1 through 5.2.7

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Operator obtains procedure HC.OP-ST.KE-0001.	Operator obtains the correct procedure.		
		Operator reviews precautions and limitations.	Operator reviews precautions and limitations. **Examiner Cue: If excessive time is taken reviewing precautions and limitations, inform operator that all are satisfied.**		
		Operator determines beginning step of the procedure	Operator determines correct beginning step to be 5.2.1		
	5.2	Mode Switch Refueling Interlock			
	5.2.1	IF this is the first subsection of the procedure to be performed, THEN LOG test start time in the Control Room log(s).	Operator ensures procedure is entered in the Control Room Log. **Examiner Cue: "Procedure is logged into Control Room Log."**		
	5.2.2	IF this is the first subsection of the procedure to be performed, ENSURE all prerequisites of Section 2.1 are satisfied.	Operator reviews all prerequisites of Section 2.1		

OPERATOR TRAINING PROGRAM NAME: _____
JOB PERFORMANCE MEASURE DATE: _____

SYSTEM: 234000 Fuel Handling Equipment
TASK: Perform Mode Switch Refueling Interlock Test IAW HC.OP-ST.KE-0001 Section 5.2.1 through 5.2.7

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	5.2.3	VERIFY all control rods that do not have position indication bypassed [IAW LCO 3.9.10.2] are fully inserted. INDICATE performance and verification on Attachment 2. START TIME: _____	**Examiner Note: All operations for this JPM are simulated on the Refueling Platform.** **Initialing steps is not critical.** Operator verifies all control rods are fully inserted. **Examiner Cue: "All control rods are fully inserted."** Operator signs attachment 2		
	5.2.4	REQUEST a second Licensed Operator or other Technically Qualified member of the unit Technical Staff be present to verify control rod position during the performance of this section.	**Examiner Cue: "Control rod positions have been verified by a second licensed operator."**		
	5.2.5	SHIFT Reactor Mode Switch from REFUEL position to the STARTUP position in Main Control Room AND INDICATE performance and verification on Attachment 2.	Operator requests the Control Room to shift the Reactor Mode Switch to Startup Position. **Examiner Cue: " Reactor Mode Switch is Startup."** Operator signs attachment 2		

OPERATOR TRAINING PROGRAM **NAME:** _____
JOB PERFORMANCE MEASURE **DATE:** _____

SYSTEM: 234000 Fuel Handling Equipment
TASK: Perform Mode Switch Refueling Interlock Test IAW HC.OP-ST.KE-0001 Section 5.2.1 through 5.2.7

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	5.2.6.A	PERFORM the following: SIMULATE Refuel Platform over the Reactor Cavity by placing the test switch plate south of the North Limit Switch (6LS).	Operator demonstrates placement of the Limit Switch Test Plate south of the NORTH Limit Switch (6LS).		
*	5.2.6.B	Slowly MOVE the platform in the REVERSE direction.	Operator simulates moving the platform in the Reverse direction. (Towards the core) **Examiner Cue: "The controls respond to the directions stated. The platform is positioned over the location stated."**		
*	5.2.6.C	WHEN the limit switch is activated, THEN PERFORM the following: VERIFY ROD OUT MOTION BLOCK is activated in the Main Control Room. INDICATE condition and performance on Attachment 2. [T/S 4.9.1.2, 4.9.1.3] VERIFY BRIDGE REV. STOP #2 light is illuminated at the Interlock Status Display Module. INDICATE condition and performance on Attachment 3. [T/S 4.9.1.2, 4.9.1.3] STOP TIME: _____	Operator verifies Rod Out Motion Block alarm received in the Control Room and signs Attachment 2. **Examiner Cue: "The stated alarm is in."** Operator verifies Bridge REV. Stop# 2 light illuminated at the Status display Module. **Examiner Cue: "The stated light is on."** **Provide terminating cue.**		

Terminating Cue: "This JPM is complete. Return the Limit Switch Test Plate to its storage location."

NAME: _____

DATE: _____

INITIAL CONDITIONS:

1. You are the Refueling Bridge operator
2. A retest of the Mode Switch Refueling Interlock must be performed IAW HC.OP-ST.KE-0001 Section 5.2 following maintenance
3. The Reactor is in Operational Condition 4 preparing for refueling
4. A Spotter is standing by
5. All control rods are full in
6. The Refuel Platform is in a standby lineup, powered up, and warmed up > ½ hour
7. HC.MD-ST.KE-0001 is complete
8. Fuel Pool Level is in the normal band

INITIATING CUE:

Perform Section 5.2 of HC.OP-ST.KE-0001(Q) for the Mode Switch Refueling Interlock

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: HOPE CREEK

SYSTEM: 233000 Fuel Pool Cooling and Cleanup

TASK: Respond to loss of Fuel Pool Inventory caused by pool liner leak. Using AB-144, Attachment 2, candidate determines leak source.

TASK NUMBER: 233000 A2.02

JPM NUMBER: 2001-NRC-LSRO-S4

ALTERNATE PATH: ☐

APPLICABILITY:
EO ☐ RO ☒ SRO ☒

K/A NUMBER:	233000	A2.02
IMPORTANCE FACTOR:	3.1	3.3
	RO	SRO

EVALUATION SETTING/METHOD: REACTOR BUILDING/ PERFORM

REFERENCES: HC.OP-AB.ZZ-0144(Q) Rev 9

TOOLS AND EQUIPMENT: None

VALIDATED JPM COMPLETION TIME: 5 ~~60~~ min.

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

APPROVED:

N/A		
BARGAINING UNIT REPRESENTATIVE	TRAINING SUPERVISOR	OPERATIONS MANAGER

CAUTION: **No plant equipment shall be operated during the performance of a JPM without the following:**
1. **Permission from the OS Or Unit CRS;**
2. **Direct oversight by a qualified individual (determined by the individual granting permission based on plant conditions).**
3. **Verification of the "as left" condition by a qualified individual.**

ACTUAL JPM COMPLETION TIME: _____

ACTUAL TIME CRITICAL COMPLETION TIME: N/A

JPM PERFORMED BY: _____ **GRADE:** ☐ SAT ☐ UNSAT

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: _____ **DATE:** _____

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: 233000 Fuel Pool Cooling and Cleanup

TASK: Respond to loss of Fuel Pool Inventory caused by pool liner leak. Using AB-144, Attachment 2, candidate determines leak source.

TASK 233000 A2.02

INITIAL CONDITIONS:

1. You are the Refueling SRO
2. The Reactor is in Operational Condition 4 preparing for refueling
3. The Control Room notified you that they have entered HC.OP-AB.ZZ-0144 for Loss of Fuel Pool Inventory
4. All appropriate Automatic Actions and Immediate Operator Actions have been taken
5. The Reactor Building operator is not available due to performing Fuel Pool Makeup activities
6. The Refueling Floor has been evacuated
7. CRIDS Point D3836 FUEL/CASK POOL GATES LEAKAGE is NOT in alarm

INITIATING CUE:

Determine the source of the leakage IAW HC.OP-AB.ZZ-0144

Successful Completion Criteria:
1. **All critical steps completed.**
2. **All sequential steps completed in order.**
3. **All time-critical steps completed within allotted time.**
4. **JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made (and NRC concurrence is obtained).**

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: 233000 Fuel Pool Cooling and Cleanup

TASK: Respond to loss of Fuel Pool Inventory caused by pool liner leak. Using AB-144, Attachment 2, candidate determines leak source.

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Operator obtains procedure HC.OP-AB.ZZ-0144	Operator obtains the correct procedure.		
		Operator reviews AB-144 Section1.0, 2.0 and 3.0	Operator reviews Symptoms, Automatic Actions, and Immediate Operator Actions.		
		Operator determines step of the procedure.	Operator determines correct beginning step to be 4.1		
	4.0	Subsequent Operator Actions	**Examiner Note: All field operations for this JPM are performed in the Reactor Building.**		
	4.1	**ENSURE** all appropriate automatic AND immediate operator actions are complete. **[CD-827D]**	**Examiner Cue: "All Automatic and Immediate Operator Actions have been taken."**		
	4.2	IF malfunction is due to low Fuel Pool level, THEN **CONTINUE** at step 4.3.IF Fuel Pool Cooling is lost THEN **PROCEED** directly to Step 4.4.	Operator determines next step is 4.3 due to loss of level.		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: 233000 Fuel Pool Cooling and Cleanup

TASK: Respond to loss of Fuel Pool Inventory caused by pool liner leak. Using AB-144, Attachment 2, candidate determines leak source.

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	4.3 4.3.1	For a loss of Fuel Pool inventory, PERFORM the following: DIRECT Radiation Protection to survey the Refuel Floor AND Reactor Building, AND to control access.	Operator directs Radiation Protection to survey the Refuel Floor and Reactor Building and to control access. **Examiner Cue: The Control Room has performed all steps up to and including 4.3.4.D.**		
	4.3.5	REVIEW Attachment 1 to check for possible leakage paths. [CD-009F, CD-800E, CD-021X]	Operator reviews Attachment 1 for possible leakage paths.		
	Attach-ment 1	Is D3836 Fuel / Cask Pool Gates Leakage Annunciated?	**Examiner Cue: If asked, restate D3836 FUEL /CASK POOL GATES LEAKAGE is NOT in alarm.**		
	1.	Check Liner Drains IAW Attachment 2	Operator reviews Attachment 2 list of liner drains. Determines Liner Drains 13,14, 16, 22, 10, 15, 11, and 12 are associated with the Fuel Pool. **Examiners Note: Other drains should not be cause of the leak. Checking liner drains associated with Dryer/Separator Pool, Reactor Well, and Cask Storage Pit are unnecessary given the conditions stated.** **Examiner Cue: If operator begins checking other drains, cue "Only check applicable liner drains."**		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: 233000 Fuel Pool Cooling and Cleanup

TASK: Respond to loss of Fuel Pool Inventory caused by pool liner leak. Using AB-144, Attachment 2, candidate determines leak source.

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		START TIME: _____	Operator checks Fuel Pool Liner drain # 13, Valve 1-EC-V110 located Reactor Building 145' el Room 4512 behind 'B' FRVS Vent fan and verifies no water flow. **Examiner Cue: "No water flow from Liner Drain # 13."**		
*		STOP TIME: _____	Operator checks Fuel Pool Liner drain # 14, Valve 1-EC-V111 located Reactor Building 145' el Room 4508A across from the loading hatch, against wall, outside SLC Injection Valve Room. **Examiner Cue: "A solid stream of water is flowing from Liner Drain # 14"** Operator calls Control Room and requests permission to close 1-EC-V111.		

Terminating Cue: This JPM is complete.

INITIAL CONDITIONS:

1. You are the Refueling SRO
2. The Reactor is in Operational Condition 4 preparing for refueling
3. The Control Room notified you that they have entered HC.OP-AB.ZZ-0144 for Loss of Fuel Pool Inventory
4. All appropriate Automatic Actions and Immediate Operator Actions have been taken
5. The Reactor Building operator is not available due to performing Fuel Pool Makeup activities
6. The Refueling Floor has been evacuated
7. CRIDS Point D3836 FUEL/CASK POOL GATES LEAKAGE is NOT in alarm

INITIATING CUE:

Determine the source of the leakage IAW HC.OP-AB.ZZ-0144

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: HOPE CREEK

SYSTEM: 215004 Source Range Monitor

TASK: SRM/IRM Rod Block Bypassing during refueling operations IAW HC.OP-SO.SE-0001 Section 5.4. Perform independent verification of installed jumpers.

TASK NUMBER: 215004 A1.04

JPM NUMBER: 2001-NRC-LSRO-S5

ALTERNATE PATH: ☐

APPLICABILITY: EO ☐ RO [X] SRO [X]

	K/A NUMBER:	233000	A2.02
	IMPORTANCE FACTOR:	3.1	3.3
		RO	SRO

EVALUATION SETTING/METHOD: REACTOR BUILDING/ SIMULATE

REFERENCES: HC.OP-SO.SE-0001 Rev 9

TOOLS AND EQUIPMENT: Flashlight

VALIDATED JPM COMPLETION TIME: 30 min.

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

APPROVED:

N/A		
BARGAINING UNIT REPRESENTATIVE	TRAINING SUPERVISOR	OPERATIONS MANAGER

CAUTION: **No plant equipment shall be operated during the performance of a JPM without the following:**

1. **Permission from the OS Or Unit CRS;**
2. **Direct oversight by a qualified individual (determined by the individual granting permission based on plant conditions).**
3. **Verification of the "as left" condition by a qualified individual.**

ACTUAL JPM COMPLETION TIME: _____

ACTUAL TIME CRITICAL COMPLETION TIME: N/A

JPM PERFORMED BY: _____ **GRADE:** ☐ **SAT** ☐ **UNSAT**

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: _____ **DATE:** _____

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: 215004 Source Range Monitor

TASK: SRM/IRM Rod Block Bypassing during refueling operations IAW HC.OP-SO.SE-0001 Section 5.4. Perform independent verification of installed jumpers

TASK 215004 A1.04

INITIAL CONDITIONS:

- You are the Refueling SRO
- The plant is in Operational Condition 5
- All fuel has been moved to the Fuel Pool
- The CRS has directed I&C to bypass the SRM/IRM Rod Blocks IAW HC.OP-SO.SE-0001 Section 5.4
- I&C has performed step 5.4.3 of HC.OP-SO.SE-0001

INITIATING CUE: Perform the Independent Verification requirements of HC.OP-SO.SE-0001.

Successful Completion Criteria:
1. **All critical steps completed.**
2. **All sequential steps completed in order.**
3. **All time-critical steps completed within allotted time.**
4. **JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made (and NRC concurrence is obtained).**

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: 215004 Source Range Monitor

TASK: SRM/IRM Rod Block Bypassing during refueling operations IAW HC.OP-SO.SE-0001 Section 5.4. Perform independent verification of installed jumpers.

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Operator obtains procedure HC.OP-SO.SE-0001	Operator obtains the correct procedure.		
		Operator reviews HC.OP-SO.SE-0001	Operator reviews precautions, and limitations		
		Operator determines step of the procedure.	Operator determines correct beginning step to be 5.4.4		
	5.4.1	**ENSURE** all prerequisites are satisfied IAW Section 2.4 of this procedure.	Operator Reviews prerequisites section 2.4 and verifies against Initial Conditions		
	5.4.2	**LOG** bypassing of SRM/IRM Control Rod Blocks in the Tech Spec Action Statement Log.	**Examiner Cue: "SRM/IRM Control Rod Block Bypassing has been entered in the Tech Spec Action Statement log."**		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: 215004 Source Range Monitor

TASK: SRM/IRM Rod Block Bypassing during refueling operations IAW HC.OP-SO.SE-0001 Section 5.4. Perform independent verification of installed jumpers.

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	5.4.4	PERFORM an independent verification of the installed jumper from Step 5.4.3. INITIAL Attachment 1. START TIME: _____	Operator proceeds to panel 10C635, opens the Cabinet door and locates terminal strip DD. Operator locates terminals DD-19 and DD-20. **Examiner Cue: After the operator locates the correct terminals, cue "A jumper is installed on the terminals stated."** **Examiner Note: Initialing Attachment 1 is not critical.** Operator initials Attachment 1 as independent verifier.		
	5.4.5	INSTALL a jumper in Panel 10C636 from AA35 to AA36. INITIAL Attachment 1.	**Examiner Cue: "The I&C technician has completed step 5.4.5"**		

OPERATOR TRAINING PROGRAM **NAME:** _____

JOB PERFORMANCE MEASURE **DATE:** _____

SYSTEM: 215004 Source Range Monitor

TASK: SRM/IRM Rod Block Bypassing during refueling operations IAW HC.OP-SO.SE-0001 Section 5.4. Perform independent verification of installed jumpers.

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	5.4.6	PERFORM an independent verification of the installed jumper from Step 5.4.5. INITIAL Attachment 1.	Operator proceeds to panel 10C636, opens the Cabinet door and locates terminal strip AA. Operator locates terminals AA-35 and AA-36. **Examiner Cue: After the operator locates the correct terminals, cue "A jumper is installed on the terminals stated."** Operator initials Attachment 1 as independent verifier.		
	5.4.7	SRM/IRM Rod Blocks are now bypassed. Control Rod withdrawal should be permitted. STOP TIME: _____	Operator notifies Control Room that independent verification is complete. **Examiner Cue: "SRM/IRM Rod Blocks are now bypassed."**		

Terminating Cue: This JPM is complete.

INITIAL CONDITIONS:

- You are the Refueling SRO
- The plant is in Operational Condition 5
- All fuel has been moved to the Fuel Pool
- The CRS has directed I&C to bypass the SRM/IRM Rod Blocks IAW HC.OP-SO.SE-0001 Section 5.4
- I&C has performed step 5.4.3 of HC.OP-SO.SE-0001

INITIATING CUE: Perform the Independent Verification requirements of HC.OP-SO.SE-0001.