

Form 3.2-2 Control Room/In-Plant Systems Outline

Facility: <u>Fermi 2</u>		Date of Examination: <u>June 2023</u>	
		Operating Test Number: <u>2023-1</u>	
Exam Level: RO <input checked="" type="checkbox"/> SRO-I <input type="checkbox"/> SRO-U <input type="checkbox"/>			
System/JPM Title		Type Code	Safety Function
Control Room Systems			
a. Shift running RRMG Lube Oil Pumps - Noisy Pump Alt Path. [K/A 202001 A4.06] IR 3.0 JP-OP-315-0104-184		A, D, S	1
b. Predict Impact of Loss of AC on Motor-Driven Feedwater Pumps and Use Procedures to Correct (Alt Path). [K/A 259001 A2.06] IR 3.5 JP-OP-315-0118-231		A, M, S	2
c. Automatic Depressurization System (ADS) Shutdown [K/A 218000 A4.03] IR 3.9 JP-OP-315-0105-242		N, EN, L, S	3
d. Shutdown TWMS from the Cleanup Mode. [K/A 223001 A4.16] IR 2.5 JP-OP-315-0169-231		N, S	5
e. Start an EDG and Respond to Low DGSW Flow – Alternate Path [K/A 264000 A3.06] IR 3.6 JP-OP-315-0165-231		A, EN, M, S	6
f. Reset Reactor Scram. [K/A 212000 A4.14] IR 3.8 JP-OP-315-0127-191		D, L, S	7
g. Shut down a Circulating Water Pump [K/A 510001 A4.01] IR 3.3 JP-OP-315-0133-231		N, S	8
h. Respond to CCHVAC Shift to Recirculation Mode (Alt Path) [K/A 290003 A2.03] IR 3.5 / 3.8 JP-OP-315-0173-231		A, EN, N, S	9
In-Plant Systems			
i. Restore/Protect RCIC as the Preferred HP Feed Source Due to a Fire in Zone 9 [K/A 217000 A2.03] 3.8 / 3.7 JP-OP315-0172-207		D, E, R	4

<p>j. Transfer of UPS from the Voltage Regulator to the Rectifier Charger / Inverter [K/A 262002 A4.01] IR 3.1 JP-OP-315-0262-004 Note: At Fermi 2, the UPS is operated locally in the field to transfer power supplies.</p>	D, R	6
<p>k. Startup Fuel Pool Ventilation Exhaust Radiation Monitor D11-K609A [K/A 272000 A4.05] 3.3 JP-OP-315-0150-001</p>	D, R	9

1. Determine the number of control room system and in-plant system job performance measures (JPMs) to develop using the following table:

License Level	Control Room	In-Plant	Total
Reactor Operator (RO)	8	3	11
Senior Reactor Operator-Instant (SRO-I)	7	3	10
Senior Reactor Operator-Upgrade (SRO-U)	2 or 3	3 or 2	5

2. Select safety functions and systems for each JPM as follows:

Refer to Section 1.9 of the applicable knowledge and abilities (K/A) catalog for the plant systems organized by safety function. For pressurized-water reactor operating tests, the primary and secondary systems listed under Safety Function 4, "Heat Removal from Reactor Core," in Section 1.9 of the applicable K/A catalog, may be treated as separate safety functions (i.e., two systems, one primary and one secondary, may be selected from Safety Function 4). From the safety function groupings identified in the K/A catalog, select the appropriate number of plant systems by safety functions to be evaluated based on the applicant's license level (see the table in step 1).

For RO/SRO-I applicants: Each of the control room system JPMs and, separately, each of the in-plant system JPMs must evaluate a different safety function, and the same system or evolution cannot be used to evaluate more than one safety function in each location. One of the control room system JPMs must be an engineered safety feature.

For SRO-U applicants: Evaluate SRO-U applicants on five different safety functions. One of the control room system JPMs must be an engineered safety feature, and the same system or evolution cannot be used to evaluate more than one safety function.

3. Select a task for each JPM that supports, either directly or indirectly and in a meaningful way, the successful fulfillment of the associated safety function. Select the task from the applicable K/A catalog (K/As for plant systems or emergency and abnormal plant evolutions) or the facility licensee's site-specific task list. If this task has an associated K/A, the K/A should have an importance rating of at least 2.5 in the RO column. K/As that have importance ratings of less than 2.5 may be used if justified based on plant priorities; inform the NRC chief examiner if selecting K/As with an importance rating less than 2.5. The selected tasks must be different from the events and evolutions conducted during the simulator operating test and tasks tested on the written examination. A task that is similar to a simulator scenario event may be acceptable if the actions required to complete the task are significantly different from those required in response to the scenario event.

Apply the following specific task selection criteria:

- At least one of the tasks shall be related to a shutdown or low-power condition.
- Four to six of the tasks for RO and SRO-I applicants shall require execution of alternative paths within the facility licensee's operating procedures. Two to three of the tasks for SRO-U applicants shall require execution of alternative paths within the facility licensee's operating procedures.
- At least one alternate path JPM must be new or modified from the bank.
- At least one of the tasks conducted in the plant shall evaluate the applicant's ability to implement actions required during an emergency or abnormal condition.
- At least one of the tasks conducted in the plant shall require the applicant to enter the radiologically controlled area. This provides an excellent opportunity for the applicant to discuss or demonstrate radiation control administrative subjects.

If it is not possible to develop or locate a suitable task for a selected system, return to step 2 and select a different system.

4. For each JPM, specify the codes for type, source, and location:

Code	License Level Criteria		
	RO	SRO-I	SRO-U
(A)lternate path	4–6	4–6	2–3
(C)ontrol room			
(D)irect from bank	≤ 9	≤ 8	≤ 4
(E)mergency or abnormal in-plant	≥ 1	≥ 1	≥ 1
(EN)gineered safety feature (for control room system)	≥ 1	≥ 1	≥ 1
(L)ow power/shutdown	≥ 1	≥ 1	≥ 1
(N)ew or (M)odified from bank (must apply to at least one alternate path JPM)	≥ 2	≥ 2	≥ 1
(P)revious two exams (randomly selected)	≤ 3	≤ 3	≤ 2
(R)adiologically controlled area	≥ 1	≥ 1	≥ 1
(S)imulator			

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d. Shutdown TWMS from the Cleanup Mode. [K/A 223001 A4.16] IR 2.5 JP-OP-315-0169-231	N, S	5	
e. Start an EDG and Respond to Low DGSW Flow – Alternate Path [K/A 264000 A4.04] IR 4.1 JP-OP-315-0165-231	A, EN, M, S	6	
f. N/A	N/A	N/A	
g. Shut down a Circulating Water Pump [K/A 510001 A4.01] IR 3.3 JP-OP-315-0133-231	N, S	8	
h. Respond to CCHVAC Shift to Recirculation Mode (Alt Path) [K/A 290003 A2.03] IR 3.5 / 3.8 JP-OP-315-0173-231	A, EN, N, S	9	
In-Plant Systems			
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k. Startup Fuel Pool Ventilation Exhaust Radiation Monitor D11-K609A [K/A 272000 A1.01] 3.4 JP-OP-315-0150-001	D, R	9

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