

NUCLEAR POWER BUSINESS UNIT
TRAINING JOB PERFORMANCE MEASURES

JPM P000.039AOT
Revision 0 DRAFT
July 11, 2000
TOTAL REWRITE

FAST START AN EMERGENCY DIESEL GENERATOR
LOCALLY

K/A REFERENCE: 064 A3.06 (3.3/3.4)
(NUREG-1122) 064 A4.01 (4.0/4.3)
064 A4.06 (3.9/3.9)

ALTERNATE PATH JPM ☒ YES ☐ NO

PERFORMANCE CHECKLIST:

SATISFACTORY - Properly performed critical step(s) and/or in sequence (if applicable)

UNSATISFACTORY - Improperly performed critical step(s) and/or out of sequence (if applicable)

☒ Procedure adequately addresses task elements.
Enter identifier here: ECA-0.0, UNIT 1, Rev. 27

☐ Other document adequately describes necessary task elements.
Enter identifier here: _____

☒ Task elements described as attached.

DESIRED MODE OF EVALUATION:

APPLICABLE EVALUATION SETTING:

SIMULATE/WALKTHROUGH ☒ DISCUSSION ☐ PERFORM ☒ IN-PLANT ☒ CONTROL ROOM ☐

VALIDATED TIME FOR COMPLETION: 15 MINUTES

NUCLEAR POWER BUSINESS UNIT
TRAINING JOB PERFORMANCE MEASURES

JPM P000.039AOT
Revision 0 DRAFT
July 11, 2000
TOTAL REWRITE

FAST START AN EMERGENCY DIESEL GENERATOR
LOCALLY

EXAMINEE _____ EVALUATOR _____

START TIME _____ FINISH TIME _____

PERFORMANCE ☐ SAT ☐ UNSAT

JOB TITLE: ☒ AOT ☐ COT ☐ SRO ☐ STA

TOOLS/EQUIPMENT/REFERENCES:

ECA-0.0, Rev. 27, Unit 1, "Loss of All AC Power, Attachment C"

TASK STANDARDS:

Emergency Diesel Generator G-03 started, bus 1A-06 energized.

FAST START AN EMERGENCY DIESEL GENERATOR
LOCALLY

READ AND PROVIDE TO THE EXAMINEE

THIS SECTION IS READ ONCE FOR THE ENTIRE PACKAGE OF JPMS. IT IS NOT REQUIRED TO REVIEW THIS SECTION FOR EVERY JPM BEING PERFORMED IN THE PACKAGE. THE INITIAL CONDITIONS AND INITIATING CUE(S)/TASKS TO BE PERFORMED SHOULD BE READ AND THEN PROVIDED TO THE EXAMINEE.

After I read you the initial conditions and initiating cue(s)/task to be performed for this JPM and provide you a copy of the same, you may review and begin. Once you have completed the task, indicate completion by handing back this form to the evaluator unless otherwise told.

You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.

EOP Immediate Actions are required to be performed from memory. After completing immediate action steps without using the procedure, you may then use any approved reference materials.

For all two and three-way communications, make your report to me, the JPM evaluator. I will reply to your reports with the statement, "acknowledge." All actions in the plant are to be simulated and all actions in the simulator will be performed. Ensure you make it clear to me, the evaluator, of all actions you are taking so that credit may be given for completing each step of the task.

DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.

INITIAL CONDITIONS:

A loss of all AC has occurred on Unit 1.
Emergency diesel generator G-03 failed to auto start and cannot be started from the Control Room.

INITIATING CUE(S) / TASK TO BE PERFORMED (SIMULATED):

The DSS/DOS directs you to perform Attachment C of ECA-0.0 Unit 1, "G-03 Local Manual Start of Normal EDG Supply to 1A-06", Steps C1 through C7.

NUCLEAR POWER BUSINESS UNIT
TRAINING JOB PERFORMANCE MEASURES

JPM P000.039AOT
Revision 0 DRAFT
July 11, 2000
TOTAL REWRITE

FAST START AN EMERGENCY DIESEL GENERATOR
LOCALLY

PERFORMANCE INFORMATION

NOTE: CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.

START TIME	STEP/SEQUENCE/CRITICAL	SAT
	1 1 N	UNSAT

ELEMENT: Check 125 Vdc Control Power >105 Vdc At D-28.

STANDARD: Voltage checked at D-28.

CUE: Voltage reads 124 Vdc.

COMMENTS:

STEP/SEQUENCE/CRITICAL	SAT
2 1 N	UNSAT

ELEMENT: Check No Overspeed Trip Alarms at Panel C-101.

STANDARD: Panel C-101 checked for overspeed trip alarms - none lit.

CUE: Overspeed trip alarms at panel C-101, none lit.

NOTE: The remainder of this JPM mode will perform local fast start and load of G-03.

COMMENTS:

STEP/SEQUENCE/CRITICAL	SAT
3 2 Y	UNSAT

ELEMENT: Place local/remote transfer switch to "LOCAL" at C-81.

STANDARD: Local/remote transfer switch in "LOCAL". Amber light on right goes off and Amber light on left goes on as transfer of switch occurs.

CUE: The local/remote transfer switch is in "LOCAL".

COMMENTS:

FAST START AN EMERGENCY DIESEL GENERATOR
LOCALLY

PERFORMANCE INFORMATION

NOTE: *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

STEP/SEQUENCE/CRITICAL
4 3 N

SAT
UNSAT

ELEMENT: Check the governor mode switch in "AUTO".

STANDARD: Governor mode switch checked in "AUTO".

CUE: The governor mode switch is in the "AUTO" position.

COMMENTS:

STEP/SEQUENCE/CRITICAL
5 4 Y

SAT
UNSAT

ELEMENT: Depress "SHUTDOWN RESET" push-button at C-81.

STANDARD: Push-button depressed.

CUE: The "SHUTDOWN RESET" push-button has been depressed.

COMMENTS:

STEP/SEQUENCE/CRITICAL
6 5 Y

SAT
UNSAT

ELEMENT: Check G-03 running.

STANDARD: G-03 status checked.

CUE: The EDG engine tachometer is reading zero and there is no audible noise from EDG room.

COMMENTS:

FAST START AN EMERGENCY DIESEL GENERATOR
LOCALLY

PERFORMANCE INFORMATION

NOTE: *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

	STEP/SEQUENCE/CRITICAL	SAT
	7 6 Y	UNSAT

ELEMENT: Depress the local "FAST START" push-button at C-81.

STANDARD: "FAST START" push-button at C-81 depressed.

CUE : The "FAST START" push-button at C-81 has been depressed, the engine tachometer reads zero and there is no audible noise from EDG room.

COMMENTS:

	STEP/SEQUENCE/CRITICAL	SAT
	8 7 N	UNSAT

ELEMENT: Depress "SHUTDOWN RESET" push-button at C-81.

STANDARD: "SHUTDOWN RESET" push-button at C-81 depressed.

CUE: The "SHUTDOWN RESET" push-button at C-81 is depressed.

COMMENTS:

	STEP/SEQUENCE/CRITICAL	SAT
	9 8 N	UNSAT

ELEMENT: Depress "VOLTAGE SHUTDOWN RESET" push-button at C-81.

STANDARD: "VOLTAGE SHUTDOWN RESET" push-button at C-81 depressed.

CUE: The "VOLTAGE SHUTDOWN RESET" push-button at C-81 is depressed.

COMMENTS:

FAST START AN EMERGENCY DIESEL GENERATOR
LOCALLY

PERFORMANCE INFORMATION

NOTE: *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

STEP/SEQUENCE/CRITICAL
10 9 N

SAT _____
UNSAT _____

ELEMENT: Push the "ALARM RESET" push-button at C-81.

STANDARD: "ALARM RESET" push-button on C-81 pushed.

CUE: The "ALARM RESET" push-button on C-81 has been pushed.

COMMENTS:

STEP/SEQUENCE/CRITICAL
11 10 N

SAT _____
UNSAT _____

ELEMENT: Place governor mode switch at C-81 to "HYD" position.

STANDARD: Governor mode switch at C-81 in "HYD" position.

CUE: The governor mode switch at C-81 is in the "HYD" position, the engine tachometer reads zero and there is no audible noise from the EDG room.

COMMENTS:

STEP/SEQUENCE/CRITICAL
12 11 Y

SAT _____
UNSAT _____

ELEMENT: IF G-03 is **NOT** running, THEN depress the local "FAST START" push-button.

STANDARD: Local "FAST START" push-button depressed.

CUE: The local "FAST START" push-button is depressed, the engine tachometer reads 900 RPM and there is audible noise from EDG room.

COMMENTS:

FAST START AN EMERGENCY DIESEL GENERATOR
LOCALLY

PERFORMANCE INFORMATION

NOTE: *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

	STEP/SEQUENCE/CRITICAL		SAT
	13	12	UNSAT
		N	
ELEMENT:	Push the "ALARM RESET" push-button at C-81.		
STANDARD:	"ALARM RESET" push-button on C-81 pushed.		
CUE:	The "ALARM RESET" push-button on C-81 has been pushed.		
COMMENTS:			

	STEP/SEQUENCE/CRITICAL		SAT
	14	13	UNSAT
		N	
ELEMENT:	Verify frequency between 59.5 Hz and 60.5 Hz using hydraulic governor control switch.		
STANDARD:	Frequency verified.		
CUE:	The frequency is 60 Hz on center C-81 panel.		
COMMENTS:			

	STEP/SEQUENCE/CRITICAL		SAT
	15	14	UNSAT
		N	
ELEMENT:	Verify output voltage (maximum 4300 Vac, rated 4160 Vac, Minimum 4050 Vac).		
STANDARD:	Diesel voltage verified.		
CUE :	Voltage on C-81 reads 4160 VAC.		
COMMENTS:			

FAST START AN EMERGENCY DIESEL GENERATOR
LOCALLY

PERFORMANCE INFORMATION

NOTE: CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.

STEP/SEQUENCE/CRITICAL			SAT
16	15	Y	UNSAT
<hr/>			
ELEMENT:	Energize 1A06 From G-03.		
	Check G03 running.		
	Ensure 1A04 to 1A06 bus tie breaker is Open.		1A5277
	Ensure G04 to 1A06 breaker is Open and Pullout.		1A5286
	Ensure G03 to bus 1A06 breaker in Auto		1A5280
	Check G03 to bus 1A06 breaker closed.		1A5280
STANDARD:	G03 verified running isolated from 1A06.		
CUE:	G03 is running.		
	1A04 to 1A06 bus tie breaker green light is lit.		1A5277
	G03 to 2A06 breaker lights are out and switch is in Pullout.		2A5287
	G03 to bus 1A06 breaker in Auto position.		1A5280
	G03 to bus 1A06 breaker green light is lit.		1A5280
COMMENTS:			

STEP/SEQUENCE/CRITICAL			SAT
17	16	Y	UNSAT
<hr/>			
ELEMENT:	Try to auto close breaker by placing control switch to trip then release.		
STANDARD:	Breaker switch 1A5280 identified and simulated to trip then release.		
CUE:	Green light above switch is green.		
COMMENTS:			

FAST START AN EMERGENCY DIESEL GENERATOR
LOCALLY

PERFORMANCE INFORMATION

NOTE: *CRITICAL STEPS ARE DENOTED WITH A "Y". FAILURE TO MEET THE STANDARDS FOR THIS ITEM CONSTITUTES FAILURE.*

STEP/SEQUENCE/CRITICAL
18 17 Y

SAT _____
UNSAT _____

ELEMENT: If breaker will not auto close then place synch switch to "ON" and manually close breaker control switch.

STANDARD: Breaker 1A52-80 synch switch taken to "ON" and control switch taken to close @ C-81.

CUE: Breaker 1A52-80 red light is lit and audible sound is heard as breaker closes.

COMMENTS:

STEP/SEQUENCE/CRITICAL
19 18 N

SAT _____
UNSAT _____

ELEMENT: Inform control room that steps C1 – C7 of ECA-0.0 are complete and G03 is running and its output breaker is closed onto 1A06.

STANDARD: As Above

CUE: This completes this JPM.

COMMENTS:

TERMINATION CUE: THIS COMPLETES THIS JPM.

COMPLETION TIME: _____