NMC Committed to Nuclear Excellence	JOB PERFORMANCE MEASURE (JPM)

SITE: MONTICELLO

JPM TITLE: REACTIVE CAPABILITY VS. MEGAWATT LOAD DETERMINATION

JPM NUMBER: JPM-B.09.02-06 **REV.** 0

RELATED PRA INFORMATION: None

TASK NUMBERS / TASK TITLE(S): CR245.113 / Respond to Generator Hydrogen System Leakage – Small Leak

K/A NUMBERS: 2.1.25 Ability to interpret reference materials, such as graphs, curves, tables, etc. **RO/SRO** 3.9/4.2

APPLICABLE METHOD OF TESTING:

Discussion: [ ] Simulate/walkthrough: [ ] Perform: [X]

EVALUATION LOCATION: In-Plant: [ ] Control Room: [ ]

Simulator: [X] Other: [ ]

Lab: [ ]

Time for Completion: 10 Minutes Time Critical: NO

Alternate Path: No

TASK APPLICABILITY: SRO: [X] RO: [X] NLO [ ]

Additional site-specific signatures may be added as desired.

Developed by:	Developer	Date
Validated by:	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	Training Supervisor	Date

Retention: Life of Plant
Retain in: Training Record
Form retained in accordance with record retention schedule identified in FP-G-RM-01.

JPM Number: JPM-B.09.02-06

JPM Title: Reactive Capability Vs. Megawatt Load Determination

Examinee: _____ **Evaluator:** _____

Job Title: _____ **Date:** _____

Start Time _____ **Finish Time** _____

PERFORMANCE RESULTS: **SAT:** ☐ **UNSAT:** ☐

COMMENTS/FEEDBACK: (Make written comments for any steps graded unsatisfactory).

EVALUATOR'S SIGNATURE: _____

NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

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(Modify text in Briefing/Turnover Box as necessary)

JPM BRIEFING/TURNOVER
Add required site specific JPM briefing material here: for example: *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.* *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.* *If this JPM is performed on the simulator, the JPM administrator should only give cues that are NOT indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should NOT have to give a cue to the trainee to continue the evolution.*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

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

INITIAL CONDITIONS:

- The plant is operating at rated conditions.
- A Generator Hydrogen System Leak occurred.
- Actions are being taken IAW B.06.02.02-05.H.2 (Generator Hydrogen System Leakage – Small).

INITIATING CUES (IF APPLICABLE):

- The CRS has directed you to determine if the Main Generator is operating within Figure 2 (Reactive Capability vs. Megawatt Load – Turbine Generator).
- Provide recommendation to CRS, if required.

JPM PERFORMANCE INFORMATION

Required Materials: See JPM Setup Instructions

General References: B.06.02.02-05.H.2 (Generator Hydrogen System Leakage –Small Leak) Rev 7
B.09.02-06 Figure 2 (Reactive Capability vs. Megawatt Load – Turbine Generator)

Task Standards: Using given plant conditions; be able to determine that the Main Generator is NOT currently operating within the limits of figure 2.

Start Time: _____

NOTE: When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e., the examinee looks or asks for the indication).

IMPORTANT: Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step SHALL result in failure of this JPM, per FP-T-SAT-73, Licensed Operator Requalification Program Examinations.

Performance Step: 1 **Critical N**	• Locates B.06.02.02-05.H.2 (Generator Hydrogen System Leakage – Small Leak). And • Locates B.09.02-06 Figure 2 (Reactive Capability vs. Megawatt Load – Turbine Generator).
Standard:	• Uses B.09.02-06 Figure 2 from the B Manual or Operator aid affixed to Panel C-07.
Evaluator Cue:	The operator may or may NOT reference B.06.02.02-05.H.2
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	

Performance Step: 2 **Critical Y**	Determines the following Main Generator parameters: • Generator MW Load • Generator MVAR Load • Hydrogen System Pressure
Standard:	• Generator MW Load ≈ 600 MWe • Generator MVAR Load ≈ 45 MVARS Delivered • Hydrogen System Pressure ≈ 30 psig
Evaluator Cue:	None
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	

Performance Step: 3 **Critical Y**	Applies Main Generator Parameters to B.09.02-06 Figure 2
Standard:	Determines that Main Generator Loading is exceeding the 30 psig Hydrogen Pressure curve.
Evaluator Cue:	None
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	

Performance Step: 4 **Critical Y**	Reports to CRS that the Main Generator Loading is exceeding the 30 psig Hydrogen Pressure curve.
Standard:	Recognizes the Main Generator is NOT operating within Figure 2 (Reactive Capability vs. Megawatt Load – Turbine Generator) Recommends a reactor power reduction to CRS (**NON-CRITICAL** portion of **STANDARD**).
Evaluator Cue:	None
Performance:	**SATISFACTORY** ☐ **UNSATISFACTORY** ☐
Comments:	

Terminating Cues: JPM is complete when operator reports whether or NOT the generator is operating within the curve.

Stop Time: _____

Historical Record: New for 2009 NRC Exam
(Optional)

Turnover Sheet

INITIAL CONDITIONS:

- The plant is operating at rated conditions.
- A Generator Hydrogen System Leak occurred.
- Actions are being taken IAW B.06.02.02-05.H.2 (Generator Hydrogen System Leakage – Small).

INITIATING CUES (IF APPLICABLE):

- The CRS has directed you to determine if the Main Generator is operating within Figure 2 (Reactive Capability vs. Megawatt Load – Turbine Generator).
- Provide recommendation to CRS, if required.

JPM SETUP INFORMATION

Instructor Actions Prior to JPM Administration:

Initialize the simulator to attain the following parameters: (IC-286 for 2009 NRC Exam)

- Generator MW Load ≈ 600 MWe
- Generator MVAR Load ≈ 45 MVARS Delivered
- Hydrogen System Pressure ≈ 30 psig

Simulator Setup: (Modify tables as necessary)

SIMULATOR - MALFUNCTIONS:

	MALF ID	MALFUNCTION TITLE	DELAY	RAMP	EVENT	VALUE	FINAL
1.	8-A-22	NO 1 GEN H2 SYSTEM TROUBLE	00:00:00	00:00:00	None	1	1
2.							

SIMULATOR - OVERRIDES:

	OVERRIDE ID.	OVERRIDE DESCRIPTION	DELAY	RAMP	EVENT	VALUE	FINAL
1.	05-MO37-01	NO 1. Main Generator H2 Press	00:00:00	00:00:00	None	50	50
2.							

SIMULATOR - REMOTE FUNCTIONS:

	REMOTE FUNC. No.	REMOTE FUNCTION TITLE	DELAY	RAMP	EVENT	VALUE	FINAL
1.			NONE	NONE	INITIAL COND.	FALSE	TRUE
2.							

JPM-B.09.02-06 (Reactive Capability Vs. Megawatt Load Determination) Rev. 0

ATTACHMENT 1

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the cover page filled in correctly?	☐	☐	
2. Has the JPM been reviewed and validated by SMEs?	☐	☐	☐
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	☐	☐	☐
4. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	☐	☐	
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	☐	☐	
6. If the task is NOT time critical, has the completion time been established based on validation data or incumbent experience?	☐	☐	☐
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	☐	☐	☐
8. Is the Licensee level appropriate for the task being evaluated if required? NOT applicable to Non-Licensed Operators	☐	☐	☐
9. Is the K/A appropriate to the task and to the licensee level if required? NOT applicable to Non-Licensed Operators	☐	☐	☐
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	☐	☐	
11. Have all special tools and equipment needed to perform the task been identified?	☐	☐	
12. Are all references identified, current, and accurate?	☐	☐	
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	☐	☐	

All applicable questions must be answered "YES" or the JPM is NOT valid for use. If all applicable questions are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation sign and date this form.

_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date
_____	_____
Validation Personnel /Date	Validation Personnel/Date

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To be able to use the macros, after opening Word go to: Tools/Macro/Security and set the security level at either Low or Medium, close completely out of Word and reopen Word to activate Macros. If you are concerned with macro viruses, check with your site to be assured of active virus scanning.

Buttons	Results from pressing toolbar buttons
	Update JPM Information - Runs the macro for inputting information into the cover sheet. [Note: - The JPM Title and Number is automatically added to the top of the second page by the use of Cross Reference fields.]
	Add JPM Step - Adds a Performance Step table at the end of that section, prior to the 'Terminating Cues:'.
	Insert JPM Step - Inserts a Performance Step table in front of an existing Performance Step table. [NOTE: - You must have your cursor inside a Performance Step table, otherwise; you will get an error message if your cursor is anywhere else.]
	Critical Step - Toggles the Performance Step to 'Critical'. Removes **all** of the text to the right of the words '**Critical**' and replaces them with the text string ' **Y (SEQ-)**'. The cursor is placed between the '**-**' and the '**)**', to allow you to insert the sequence number for the performance step. [NOTE - You must have your cursor inside the Performance Step table you want to make into a critical step otherwise you get an error message.]
	Non-Critical Step - Toggles the Performance Step to 'Non-Critical'. Removes **all** of the text to the right of the words '**Critical**' and replaces them with the text string ' **N (SEQ-)**'. The cursor is placed between the '**-**' and the '**)**', to allow you to insert the sequence number for the performance step. [NOTE - You must have your cursor inside the Performance Step table you want to make into a non-critical step otherwise you get an error message.]
	Evaluator Note - Adds a row to the Performance Step table under the '**Standard:**' line, to allow you to enter any notes for the Evaluator.
	Remove Evaluator Note - Removes the '**Evaluator Note:**' line if it was added to the Performance Step table. [NOTE - You must have your cursor inside the Performance Step you want to remove the Evaluator Note from otherwise it removes two lines from the table above the cursor.]
	Evaluator Cue - Adds a row to the Performance Step table above the '**Performance:**' line, to allow you to enter any cues for the Evaluator.
	Remove Evaluator Cue - Removes the '**Evaluator Cue:**' line if it was added to the Performance Step table. [NOTE - You must have your cursor inside the Performance Step you want to remove the Evaluator Cue from otherwise it removes two lines from the table above the cursor.]
	Simulator Setup Page - Adds a Simulator Setup page near the end.
	Remove Simulator Setup Page - Removes the inserted Simulator Setup page.
	Update Turnover Sheet - Takes the turnover information from page 3 (JPM Briefing / Turnover page) and updates the Trainee's version of the turnover page, located prior to Attachment 1 (the last page of the JPM).

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Not For Exam Use - Places a shaded Word Art text box diagonally across the first page. To remove the text, place your cursor near the top right side of the coversheet and select the Word Art text and delete.

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