

**BFN 2015 NRC Exam for ILT class 1510
Post Operating exam comments**

Post Operating Exam Comment #1

JPM 679 Upgrade PAR on wind shift

**The standard given for step 2 of the JPM as written states:
The applicant fills out EPIP-5 Appendix F to match the Key provided.**

Applicant Performance:

**The Applicants filled out Appendix F but did not match the Key provided.
Both Applicants did identify and indicate that they would recommend that the State of Alabama shelter the A5 sector.**

Bases for Post Exam Comment:

The Key indicated that both the previously reported and new affected sectors would be marked on Appendix F, General Emergency Follow-Up Information Form.

EPIP-5, General Emergency, section 3.6, Monitor / Re-evaluate the event, directs using Appendix E, Monitor / Re- Evaluate the Event, and Appendix F, General Emergency Follow-Up Information Form.

Neither the body of the BFN EPIP-5, General Emergency, nor Appendix F, General Emergency Follow-Up Information Form, indicate that the previously reported affected sectors should or should not be included on the Appendix F form.

BFN EPIP-5 contains Appendix J, Upgrade – Protective Action Recommendation, which states on page 2: Identify any affected sectors from previous PARs. The body of BFN EPIP-5, General Emergency, does not direct using nor does it reference Appendix J.

The Facility did not identify this procedure inadequacy during exam development or validation.

The state of Alabama was notified of the initial Protective Action Recommendations including the sectors to evacuate and shelter using EPIP-5 Appendix A prior to initiating the follow-up actions required by EPIP-5 section 3.6.

BFN only recommends action to protect affected sectors to the State. The State and Local Authorities are responsible to determine when and how to recover from these actions once the Emergency no longer exists.

This issue has been discussed with the BFN Emergency Preparedness Manager. He indicated that as long as the Applicant indicates that the A5 sector is to be sheltered on Appendix F, General Emergency Follow-Up Information Form, the Health and Safety of the Public would not be jeopardized. See attached E-Mail from the EP Manager.

The NRC Chief Examiner requested that the Facility review Emergency Preparedness Performance Indicators and Licensed Operator Requalification grading criteria for additional information or requirements for notifying the State of Protective Action Recommendation. The Facility reviewed EPDP-11, Emergency Preparedness Performance Indicators, and NPG-SPP-17.8.1, Licensed Operator Requalification Examination Development and Implementation; however neither provides specific guidance relative to failure criteria in completing the EPIP-5 forms.

NPG-SPP-17.8.1, Licensed Operator Requalification Examination Development and Implementation, does provide grading criteria on Attachment 22 page 11. Competency 7, Comply with and use Emergency Plan, under (e) REP documentation was completed properly and accurately states: All other REP forms and procedures were completed but minor flaws or errors were noted. The Health and safety of the Public would not have been jeopardized would be graded as a 2. In accordance with NPG-SPP-17.8.1 Attachment 22 page 12 under Competency Calculations a score of 2 does not require remediation. The BFN LOR exam team indicated that since the body of EPIP-5 and EPIP-5 Appendix F are silent on including previously identified protected sectors this competency could not be graded below a score of 2.

Based on the information above the Facility recommends that:

The standard for completing EPIP-5 Attachment F reflects that the Critical Step is to identify that sector A5 is to be sheltered. Including or not including previously reported affected sectors is not critical.

Documents reviewed included:

EPIP-5, General Emergency
NPG-SPP-17.8.1, Licensed Operator Requalification Examination Development and Implementation
EPDP-11, Emergency Preparedness Performance Indicators
NPG-SPP-02.2, Performance Indicator Program

CR 1106129 has been generated to resolve the EPIP-5 procedure issues.

Keith/Scott,

After looking into this issue, this is our position:

The current Rev of EPIP 5 has Appendix F GE follow up information which includes a table to mark sectors to shelter/evacuate. This table does not say to mark areas previously reported to the state. EPIP 5 also includes Appendix J titled Upgrade- Protective Action Recommendation; however the body of the procedure does not reference using this table. Appendix J states on page 2 "identify any affected sectors from previous PARs. Appendix F does not have this statement.

BFN EPIP-5 requires revision to address utilization of Appendix J, Upgrade – Protective Action Recommendation. The procedure currently has steps for re-evaluating, including Appendices E and F for Re-evaluating and Follow-up. With this being a follow-up recommendation, the State already has the original recommended sectors and therefore have the information once the new Form F is distributed. Including this on Appendix J just makes it easier when updating the State. Therefore, as long as the state is notified of the new sector(s) to be sheltered due to the wind shift the requirement is satisfied with or without the previously reported sectors.

Thanks,

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**BFN 2015 NRC Exam for ILT class 1510
Post Operating Exam Exit Comments**

JPM 631- Restore Offsite Power to 4KV Shutdown Board at PNL 9-23

The standard given for Step 10 of the JPM as written states: Matches DG A voltage with system voltage using DG A VOLT REGULATOR CONT switch 0-HS-82-A/2A.

Applicant performance:

One applicant lowered DG Voltage to the point that the "4160V SD BD A DEGRADED VOLTAGE" alarm was received. This condition was self corrected by the applicant and the alarm was reset. One Examiner stated that the applicant had stopped lowering and started raising voltage as the alarm was received.

NRC Examiner Question:

Did the applicant create a new critical step by lowering DG Voltage to the point that the "4160V SD BD A DEGRADED VOLTAGE" alarm was received?

Response/Clarification:

The relays that actuate the degraded voltage alarm are the same ones that start the DG. Since the D/G was already running there was no impact on the D/G.

During the JPM RHR loop I was in Suppression Pool Cooling IAW 2-OI-74.

2-OI-74 states: RHR Pump 2A Motor full load current is 247 amps.
The RHR pump shall be stopped immediately if motor current exceeds 247 amps.

0-OI-23 states: RHRSW Pump Motor nameplate full load current is 53 amps. The Maximum allowable continuous running current is 61 amps (based on full load amps multiplied by the motor service factor of 1.15). [SLT 861087005]

The Exam team re-performed the JPM and lowered voltage using the DG A VOLT REGULATOR CONT 0-HS-82-A/2A until the degraded voltage alarm was received at ~ 3920 volts and verified that the A RHR pump remained below 247 amps and the A1 RHRSW pump remained below 53 amps. Lowering the D/G voltage using DG A VOLT REGULATOR CONT 0-HS-82-A/2A did cause the A RHR and A1 RHRSW pump amps to reach their limits at ~ 3350 volts.

The Exam team also verified that every time the D/G is supplying the 4KV Shutdown board as the only supply with no load on the board and an RHR pump is started the degraded voltage alarm is received.

Conclusion:

Based on the above information above an error was made by the Applicant which was self corrected. The error did not adversely impact the A D/G or the pumps being supplied by the board. There was no safety significance to the error. The Applicant was able to complete the JPM successfully.

In the opinion of the Facility no new critical tasks were created by the error.

If the Applicant had continued to lower voltage to the point that the running pumps exceeded the amp limits and not corrected the condition immediately a new critical task would be appropriate.

**BFN 2015 NRC Exam for ILT class 1510
Post Operating Exam Clarification**

JPM 307 Startup and synchronize Unit 3 Preferred MMG Set

The standard given for step 8 of the JPM as written states:
Checked amp indicators L1 MINUS L2 approximately equals n.

Applicant Performance:

One applicant failed to review the indications for L1, L2 and N per 0-OI-57C Step [22] (JPM 307 step #8). This step is currently marked as a critical step. The step should not have been marked as a critical step.

Bases for Post Exam Clarification:

The Unit 3 Preferred MMG Set is loaded and paralleled when Unit 3 Breaker 1001 is closed with the synchroscope at 5 minutes prior to 12 o'clock position per 0-OI-57C Step [21.1]. This was completed on JPM 307 step #6. Subsequently, Unit 3 Breaker 1002 was opened per 0-OI-57C Step [21.3] which in turn separates the other source of power from the bus. This was completed on JPM 307 step #7. Checking Unit 3 MMG amps per 0-OI-57C step [22] (JPM 307 Step #8), is not required to complete the task as given in the JPM Initiating cue, therefore should not be considered a critical step.