

#### 2004-301-1.(S)RO.1 – Verify a Working Copy of a Procedure Current Prior to Use

Originally was planned to be run in conjunction with In-Plant Systems JPM 'k'. Instead was performed in the Simulator to reduce the amount of time needed to perform In-Plant JPMs. All required resources were available within the Simulator.

This JPM was originally designated for the ROs only, but was selected to replace the original JPM (Verify Minimum Crew Composition) listed in the SRO exam outline.

#### 2004-301-1.RO.2 – Turnover Panel Walkdown

The HPCS Emergency Diesel Generator control switch was placed in Pull-To-Lock instead of the "B" Emergency Diesel Generator control switch.

This JPM was modified during validation week to narrow the scope of the original JPM.

#### 2004-301-1.SRO.2 – Review and Approve a HPCS Run Surveillance

A fifth discrepant condition (on page 22, step 5.1.3.49.d, the Independent Verifier cannot be the same person as the person who performed the test) was identified during the performance of the JPM and was added as a critical step.

This JPM replaced the original JPM listed in the SRO outline. The task to review a surveillance document is similar, but a different procedure is used.

#### 2004-301-1.(S)RO.3 – Review Clearance for Adequacy

Step 2 of the JPM was originally identified as a Critical Step, but since there were no errors associated with the components listed in this step it was changed to a Non-Critical Step.

#### 2004-301-1.RO.4 – Inventory Control Room High Rad Series Keys/ Missing Key

This JPM was replaced with the JPM "Verify Applicable Radiological Controls" during the validation week because the "Inventory of High Rad Series Keys was not an RO task." This JPM was also used for the SRO Upgrade candidates because of scheduling concerns.

#### 2004-301-1.SRO.4 – Inventory Control Room High Rad Series (HRS) Keys/Missing Key

The first two steps of this JPM incorrectly referenced HRS Key 7-9 as the missing key. The correct key was 7-8. A pen and ink change was made, prior to performance of the JPM, to correct the error.

#### 2004-301-1.SRO.5 – Complete Event Classification Checklist

The Standard for Step 3 of the JPM stated that the candidate was expected to determine that an unplanned radioactive release was in progress. The radiation monitoring information provided to the candidates was for a monitor located upstream of a filter package. No information on downstream monitoring information (e.g., the vent stack monitors) was provided to the candidates. Since the radiation monitoring information provided to the applicants was not conclusive on whether an unplanned release was in progress or not, either determination will be accepted.

#### 2004-301-2.a through 2004-301-2.d

No changes were made.

#### 2004-301-2.e – Establish a Vacuum in the Main Condenser with the Mechanical Vacuum Pumps

Made two pen and ink corrections: 1) corrected procedure referenced in initiating cue from IOI-7 to IOI-6; 2) added "in accordance with SOI-N64/62" to the end of the last sentence in the initiating cue.

During the validation week this JPM was added to replace a JPM to shift Steam Jet Air Ejectors since the simulator did not support shifting of the SJAEs.

#### 2004-301-2.f – Respond to Stuck SRM during withdraw of Detectors

Due to the plant conditions established by the Simulator IC selected for performing this JPM it was not necessary to Bypass SRM C, therefore Step 10 was changed to a non-critical step.

#### 2004-301-2.g – Start RHR Pump "B" in Suppression Pool Cooling

This JPM replaced the JPM that was originally listed in the outline. During preparation of the exam it was discovered that there was no procedure that adequately addressed the task specified in the original JPM.

#### 2004-301-2.h – Attempt to Close a Stuck Open SRV

Step 4.2 of the JPM required that the candidate pull both fuses to satisfactorily complete the step. Because of the simulator modeling for the malfunction used to perform this JPM the SRV closed after only pulling one of the two specified fuses. Since the SRV went closed performance of this step was considered complete when only one fuse was pulled.

#### 2004-301-2.i through 2004-301-2.k

No changes were made.

## Scenario 1

During the validation week two component failures were added to the scenario: 1) an inadvertent HPCS initiation; and 2) HPCS ESW Pump Discharge Valve failure to open. Additionally during the validation week the bomb threat call in the last event was eliminated to prevent candidates being distracted by addressing E-Plan issues during the scenario.

During performance of the exam the event to shift the RFPT to the Startup Level Controller was eliminated because initial conditions of the setup did not support its performance without spending an excessive amount of time to complete the plant heatup.

During performance of the exam, the RWCU leak rate did not permit adequate time for the candidates to locate and manually isolate the leak before an automatic isolation. Therefore, shutdown and manual isolation of the RWCU system was not considered part of the evaluation criteria.

During performance of the exam, the HPCS spurious initiation resulted in the high RPV level trip of the RFP and a manual scram was initiated at this point rather than with opening of the Bypass Valves. Therefore, post scram activities were evaluated as part of the HPCS spurious initiation.

During performance of the exam, with a surrogate acting as the BOP Operator, the HPCS Spurious Initiation and HPCS ESW Pump Discharge Valve Failure malfunctions were not activated since there were enough other component failures to evaluate performance of the RO and SRO.

## Scenario 2

During the validation week an additional failure was added to event #5 to fail open the HPCS Full Flow Test Valve; and the HPCS Min Flow Valve Failure was eliminated from event #6. This was done to ensure that HPCS would not inject while the reactor was pressurized. Additionally, a small reactor coolant leak malfunction was added to enhance the head seal failure, to increase the rate of RPV level decrease, so that candidates would be driven deep enough into the EOPs.

During performance of the exam, the reactor coolant leak rate drove the candidates to manually scram the reactor due to Drywell conditions rather than following the subsequent loss of feed. Additionally, the oil leak rate on the B RFPT, coupled with plant conditions resulting from the reactor coolant leak, did not permit enough time for the candidates to manually shutdown the B RFPT before the pump automatically tripped. There were enough other activities to adequately evaluate the candidates.

During performance of the exam, the candidates were proactive enough at reducing reactor pressure, that the need for Emergency Depressurization was significantly delayed, so that the scenario was terminated, by the Chief Examiner, due to time constraints. The scenario was determined to be adequate without the requirement to Emergency Depressurization.

During performance of the exam, with a surrogate acting as the BOP Operator, the Main Turbine Valve Test (Event #3) was not performed since there were enough other component failures to adequately evaluate the SRO and RO.

### Scenario 3

During the validation week the original Scenario 3 was replaced with the 'spare' scenario (originally Scenario 4), due to the potential compromise of (original) Scenario 3 when a copy of the scenario was left in an un-secure area. Scenario 4 was revised, validated, and designated as Scenario 3. The revisions to the scenario included: 1) addition of a reactivity manipulation, 2) addition of a post maintenance run of RCIC (CST to CST) as a normal evolution, 3) replacing the travelling screen malfunction with a Service Water Pump flow degradation, 4) addition of an APRM Upscale Instrument Failure, 5) replacement of the RWCU resin break through malfunction with an inadvertent insertion of a second control rod during the scram time test, and 6) addition of an unisolable steam leak outside the Primary Containment.

During performance of the exam, with a surrogate acting as the BOP Operator, the RCIC run and Service Water Pump degradation events were not performed since there were enough other component failures to adequately evaluate the SRO and RO.