

TableTop Exercise Questions

Staff Analysis – Response to Recommendation 1

(GAO-13-743, “Nuclear Power: Analysis of Regional Differences and Improved Access to Information Could Strengthen NRC Oversight” ML14251A363)

The below outlines questions that were provided to NRC regional inspection staff as part of a study performed and finalized in December 2014. The purpose of the study was to determine the causes of regional differences in the number of very low safety significance findings. Most of the questions challenge inspectors to screen hypothetical identical borderline scenarios for documentation. By giving the inspectors identical scenarios factors such as licensee performance were removed from the consideration. This allowed NRC staff to specifically evaluate specific determinations and considerations which could be affecting the number of very low safety significance findings.

Prior to this study, the GAO identified notable differences in the number of findings being documented in each region and recommended that we determine why these differences exist. The NRC acknowledged the GAO recommendation and felt that a study was warranted in order to identify enhancements to improve predictability and consistency in our disposition of very low safety significant issues.

TableTop Exercise Questions

Where do you work?

If you answered "Other," where do you work?

What best describes your position?

What area do you primarily inspect or oversee/manage?

I am...

Exercise 1 Accept the finding as stated below and then screen the nine identification scenarios as you would in your region. Then answer the related question and provide your reasoning insights for the decision. The Finding Two days ago, in connection with maintenance on the 2A Emergency Diesel Generator (EDG), the licensee closed EDG cooling valve ZZ but failed to reopen it, as required by the system restoration step in the maintenance procedure. The closed valve rendered the EDG inoperable and was not identified prior to the finding identification scenarios described below. The finding was not previously identified because the PMT (which both the licensee and NRC agreed was appropriate for the intended maintenance activity) did not require redundant configuration verification nor did it require the EDG to be started. The licensee had declared the EDG operable after the PMT. The failure to maintain configuration control in accordance with licensee procedure XX (which is required by regulatory guidance (RG) 1.33, as invoked by technical specification (TS) YY) will, upon discovery, screen through IMC 0612 App B and IMC 0609 as a Green Finding involving a non-cited violation (NCV).

Exercise 1 Scenario 1 Inspector observes the valve out of position while performing a system walk-down of the EDG per IP 71111.04, “Equipment Alignment.” The inspector informs licensee

who initiates condition report that correctly identifies the finding. Exercise 1 Scenario 1 What ID credit would you assign?

Exercise 1 Scenario 1 Provide the reasoning and basis for your selection.

Exercise 1 Scenario 2 Inspector observes the valve out of position while performing a detailed inspection of the EDG. Before revealing the out of position value to the licensee, the inspector found out that the licensee was going to perform self-initiated post-maintenance configuration review later in the day that would have specifically checked the position of the out of position valve. Before the licensee can initiate the configuration review, the inspector informs licensee who initiates condition report that correctly identifies the finding. What ID credit would you assign?

Exercise 1 Scenario 2 Provide the reasoning and basis for your selection.

Exercise 1 Scenario 3 While performing a self-initiated post-maintenance configuration review, an Auxiliary Operator observes the valve out of position. The Auxiliary Operator initiates a condition report that correctly identifies the finding. What ID credit would you assign?

Exercise 1 Scenario 3 Provide the reasoning and basis for your selection.

Exercise 1 Scenario 4 While performing a self-initiated post-maintenance configuration review, an Auxiliary Operator observes the valve out of position. The Auxiliary Operator initiates a condition report that identifies the condition. However, after licensee approves the condition report, inspectors determine (and licensee agrees) the condition cause and resolution were incorrect. The corrective action document is amended and another initiated on the deficient characterization. What ID credit would you assign?

Exercise 1 Scenario 4 Provide the reasoning and basis for your selection.

Exercise 1 Scenario 5 While preparing for an EDG surveillance run, the Auxiliary Operator observes valve out of position. The Auxiliary Operator initiates a condition report that correctly identifies the finding. What ID credit would you assign?

Exercise 1 Scenario 5 Provide the reasoning and basis for your selection.

Exercise 1 Scenario 6 During EDG surveillance run, temperatures start to rise abnormally. Auxiliary Operator observes valve out of position, the EDG is shutdown for a lineup check and a condition report is initiated that correctly identifies the finding. What ID credit would you assign?

Exercise 1 Scenario 6 Provide the reasoning and basis for your selection.

Exercise 1 Scenario 7 During EDG surveillance run, temperatures reach alarm set point and trigger alarm. The EDG is shutdown and a condition report is initiated that correctly identifies the finding. What ID credit would you assign?

Exercise 1 Scenario 7 Provide the reasoning and basis for your selection.

Exercise 1 Scenario 8 During valid EDG demand, the Auxiliary Operator observes a valve out of position, the operator opens the valve and later initiates a condition report that correctly identifies the finding. What ID credit would you assign?

Exercise 1 Scenario 8 Provide the reasoning and basis for your selection.

Exercise 1 Scenario 9 During valid EDG demand, temperatures reach alarm set point and trigger alarm, the EDG is shutdown to prevent damage and a condition report is initiated that correctly identifies the finding. What ID credit would you assign?

Exercise 1 Scenario 9 Provide the reasoning and basis for your selection.

Exercise 1 (Survey Question) In your own words and without doing any research, what do you consider to be the main reason why Green licensee identified findings are treated differently than self-revealing or NRC identified findings?

Exercise 2 Issue of concern: While reviewing the condition of the control room emergency air conditioning system (CREACS) common suction expansion joints, associated maintenance records, and vendor documents, the inspectors observed the manufacturer specified a service life of 10 years for all expansion joints yet some of the in-service expansion joints had been in service for over 20 years. The licensee had not performed an acceptability evaluation for extending the service life beyond the manufacture's 10 year specification. Exercise 2 Scenario 1 No signs of degradation were noted on the expansion joints. Select the PD screening outcome for this scenario.

Exercise 2 Scenario 3 Visible signs of degradation were noted on some of the expansion joints. A review of maintenance records indicated several of the expansion joints had failed and been replaced after exceeding their recommended service life. Exercise 2 Scenario 3 Select the PD screening outcome for this scenario.

Exercise 3 High Pressure Coolant Injection (HPCI) was returned to operable status several weeks ago. While reviewing work orders for work done on the HPCI pump, inspectors noticed that the post maintenance testing performed to confirm operability had not been updated in the work order nor the computer used for tracking. Later, the licensee concluded that the post maintenance tests (PMTs) had not been performed. (PD: the licensee failed to accomplish activities affecting quality in accordance with instructions – 10 CFR Criterion V “Instructions, Procedures, and Drawings”) Select the PD screening outcome for this exercise.

Exercise 2 (Survey Question) Would the licensee planned corrective actions in any of the above scenarios affect your MTM determination?

Exercise 2 Scenarios 1 through 3 Provide the basis and reasoning for your determinations

Exercise 3 Would you wait and see if HPCI is degraded or inoperable prior to applying the More-than-Minor screening questions?

Exercise 3 Is there a potential for this to become a more significant safety concern?

Exercise 4A The Reactor Core Isolation Cooling (RCIC) surveillance is run without a flow path and the discharge piping is pressurized 200 psi above the normal system operating pressure. Vendor has provided licensee operating experience that states this condition is a concern and walk downs and operability evaluations need to be performed if this condition existed. The licensee does not recognize or perform operability evaluation because nobody checked to see how high pressure went. However, after inspectors prompted an evaluation, it was determined that operability was never lost. Select the screening outcome for this exercise.

Exercise 4A Provide the basis and reasoning for your determination

Exercise 4B Intermediate Range Nuclear Instrument noise interference was causing numerous reactor half scrams for several years. This condition adverse to quality (noise on the system) was not a significant condition adverse to quality. Each time the ½ scram occurred the licensee recalibrated the instruments to eliminate the ½ scram condition / noise. Select the screening outcome for this exercise.

Exercise 4B Provide the basis and reasoning for your determination

Exercise 4C An inspector was reviewing a work activity scheduled later that day on a Containment Spray valve that also served as a primary containment isolation valve. After reviewing the planned work, the inspector questioned the fact that no Local Leak Rate Test (LLRT) was planned before the system was to be returned to service. The test was not identified in the work package nor had it been scheduled through the work control review process. The initial response from the Work Control organization was that no as left LLRT was required. Further review by the licensee confirmed that the work scope would have required a LLRT surveillance and the work was removed from the schedule. The maintenance work scope was later modified in a way that did not require the LLRT to be performed. Because the inspector raised the question before the work was performed, the issue with implementation of the Leak Rate Testing program controls and the subsequent breakdown in the work control review and approval process had no impact on the system condition. Select the screening outcome for this exercise.

Exercise 4C Provide the basis and reasoning for your determination

Exercise 4D The licensee has informed the inspectors that the containment is ready to be closed out and everything is done with the exception of locking the door prior to returning to power operations. Inspectors enter the containment and perform a final walk-down and notice that the RHR sump strainers had FME covers over them. Select the screening outcome for this exercise.

Exercise 4D Provide the basis and reasoning for your determination

Exercise 5A Proposed performance deficiency: Licensee staff did not assess the increase in plant risk resulting from planned maintenance activities on Refueling Water Storage Tank (RWST) level instrumentation. Licensee staff performed maintenance on the RWST level indication system. Inspectors reviewed the work activity and noted the maintenance scheduling software used by the licensee did not have the RWST maintenance coded as a risk-significant activity. Therefore, a risk assessment was not performed for the quarterly RWST level indication. Licensee staff subsequently updated the risk model to include the RWST level indication and subsequently assessed the online risk for the maintenance which resulted in a measurable increase in the core damage frequency (CDF). The increase in CDF was not large enough to require entrance into the higher risk category per site procedures. In addition, the increase in CDF ($1.1E-6$) combined with the limited duration of the maintenance (15 hours) resulted in a relatively small incremental core damage probability deficit (ICDPD)($1.9E-9$). Although the increase in CDF not large enough to require entrance into a higher risk category, is the licensee still required to identify Risk Management Actions?

Exercise 5A Based on the above facts, do you believe a violation of the Maintenance Rule exists?

Exercise 5A Based on the above facts, do you believe a More-than-Minor performance deficiency (i.e., finding) exists?

Exercise 5A Please add any additional considerations which you would factor in to determine whether this is a violation, performance deficiency, or finding as appropriate.

Exercise 5B Proposed performance deficiency: Licensee's failure to assess and manage the risk of planned maintenance activities. During a walk-down, inspectors identified a tractor trailer parked within 10 feet of a 161kV line tower. This area is posted to contact operations when working in the area. The inspectors questioned the placement of the tractor trailer, and during discussions with licensee staff, determined that they were not aware of the positioning of this trailer and an on-line risk assessment was not performed to determine any increase the likelihood of initiating events associated with the work on the parked trailer. The plant was in a baseline risk configuration as there were no other ongoing work activities in the plant. Based on the above facts, do you believe a violation of the Maintenance Rule exists?

Exercise 5B Based on the above facts, do you believe a More-than-Minor performance deficiency (i.e., finding) exists?

Exercise 5B Please add any additional considerations which you would factor in to determine whether this is a violation, performance deficiency, or finding as appropriate.

Exercise 5C Proposed performance deficiency: Failure to adequately assess the risk that resulted from securing the "A" feedwater pump. In addition, failure to upgrade the advertised plant risk from "Yellow" to "Orange" and not specify risk management actions for the increased risk condition. A low oil pressure alarm annunciated for the "A" feedwater pump while the pump was running. Alarm response procedures directed a unit down power to allow securing the pump. Prior to commencing a down-power and securing the feedwater pump for troubleshoot and repair activities, operators performed a review of plant risk using the online risk model. However, the operators only considered the feedwater pump unavailable and did not include the increased risk of a plant transient and trip. Operators performed a down-power and secured the feedwater pump approximately 1 hour after the low oil pressure alarm annunciated. The inspectors reviewed the published "Yellow" risk profile and protected equipment list for the plant and independently modeled the plant risk. Upon questioning by inspectors, the licensee concluded that the plant risk profile had been "Orange" when the feedwater pump was secured when considering the increased risk of a plant transient and trip. The licensee then performed remaining relevant actions, such as plant notifications. The inspectors calculated an incremental core damage probability deficit was less than 1E-6 (approximately 4E-9) during the 1 hour period when securing the feedwater pump. Based on the above facts, do you believe a violation of the Maintenance Rule exists?

Exercise 5C Based on the above facts, do you believe a More-than-Minor performance deficiency (i.e., finding) exists?

Exercise 5C Please add any additional considerations which you would factor in to determine whether this is a violation, performance deficiency, or finding as appropriate.

Exercise 5D Proposed performance deficiency: Failure to perform a procedural required

evaluation of changing weather conditions effects on online risk assessment which could have negatively impacted the availability of offsite power. The National Weather Service issued a tornado warning for the county in which the nuclear site is located. In response to a tornado warning, licensee procedures require Operators to enter Off-Normal Operating Procedure 14-1234, "Severe Weather," and evaluate online risk. This severe weather condition would have resulted in the licensee entering into an Orange risk condition. The next day inspectors identified that the licensee had not made a log entry for entry into their off normal severe weather procedure and therefore had not evaluated online risk status for the severe weather condition. The operators had not entered their severe weather off normal procedure because the shift manager did not receive a notification of the warning from the AccuWeather website, which is an automatic email service to the control room staff alerting them of National Weather Service warnings that could affect the site. Based on the above facts, do you believe a violation of the

Maintenance Rule exists?

Exercise 5D Based on the above facts, do you believe a More-than-Minor performance deficiency (i.e., finding) exists?

Exercise 5D Please add any additional considerations which you would factor in to determine whether this is a violation, performance deficiency, or finding as appropriate.

Exercise 5 (Survey Question 1) Does the IMC 0609, Appendix K, provide sufficient guidance to assess the significance of findings associated with maintenance risk?

Exercise 5 (Survey Question 2) Do you have sufficient guidance and training, to understand the Maintenance Rule requirements and effectively implement the 71111.13 inspection procedure?

Exercise 5 (Survey Question 3) Please add any additional comments regarding the implementation of inspection procedure 71111.13, "Maintenance Risk Assessments and Emergent Work Control" or additional inspection support you would like to see in this inspection area.

Exercise 6A Proposed performance deficiency: Failure to adequately evaluate the degraded conditions to support the operability determination. The inspectors observed that operations personnel identified a tube leak in component cooling water heat exchanger in October at a rate of approximately 0.047 gallons per minute. Operations personnel initiated a condition report and performed an immediate operability determination. The operability determination concluded that the heat exchanger was operable because the leakage was well below the component cooling water emergency makeup pump ability of 15 gallons per minute. The supporting engineering evaluations also concluded that the heat exchanger tube leak rate should be limited to 4 gallons per minute due to the allowable tube stress limits. Additionally, operations personnel were required to fill the component cooling water surge tank on a weekly basis to make up for inventory losses. In November, engineering personnel observed that the heat exchanger tube leakage was at 0.2 gallons per minute and initiated a new condition report. In December, the tube leak continued to degrade to a rate of 0.432 gallons per minute. In January, the inspectors observed that the rate of tube degradation had increased, and had degraded to a leak rate of approximately 2 gallons per minute. The adverse trend in the tube leak rate was not recognized as a condition that could challenge the ability of the heat exchanger to perform its safety function for the required mission time. The immediate operability determination did not evaluate the impact of the leak rate, and any adverse trends identified, on the ability of the heat exchanger to perform its safety function over the required mission time of 30 days. The inspectors observed that no prompt operability determination had been performed. The inspectors also determined that the original immediate operability determination had not been reviewed to ensure that a continued basis for operability existed with the changing tube leak rate trend. Instead, operations personnel continued to manage the degrading condition by increasing the frequency of making up to the component cooling water surge tank. Should the licensee have performed a prompt operability evaluation considering the adverse trend in heat exchanger leakage even though the 4 gpm limit was previously established?

Exercise 6A Please add any additional considerations which you would factor in to determine

whether this is a violation, performance deficiency, or finding as appropriate.

Exercise 6B Proposed performance deficiency: The failure to request a new prompt operability determination when conditions had changed, as required by the procedure, was a performance deficiency. In August, during the course of the day, the isolation valve cubicle room temperature exceeded 104°F for greater than 8 hours and reached a peak recorded temperature of 109°F. Technical Requirements Manual Specification 3.7.13, states that when the temperature of the isolation valve cubicle exceeds 104°F for longer than 8 hours then an evaluation must be performed to determine continued operability of the affected equipment. The equipment that would be affected by the higher temperatures are: auxiliary feedwater pump turbine isolation valve, feedwater isolation valve solenoid valves, auxiliary feedwater outside containment isolation valve, and the auxiliary feedwater cross-connect valve close limit switch. The licensee recognized the high temperature and made several control room log entries between June and August to document that the equipment was still operable. A peak temperature of 109°F occurred on multiple days over a 10 day period. The inspectors noted that the previous prompt operability determinations concluded that the maximum recorded temperature had been 108°F and that the time allowed at this temperature was roughly 150 hours. The inspectors' review of the control room logs determined that both of these conditions were exceeded, 109°F and over 250 hours, therefore, a new prompt operability determination needed to be performed to ensure continued operability of the equipment. The licensee's corrective actions included performing a new prompt operability determination which concluded continued operability of the affected equipment. Since the licensee's prompt operability evaluation and subsequent revisions concluded the equipment remained operable, do you believe that this performance deficiency is "More-than-Minor"?

Exercise 6B Which of the following screening questions could be answered 'yes' to get "More-than-Minor?"

Exercise 6C Proposed performance deficiency: Failure to perform an adequate operability evaluation in accordance with station procedures. The plant's standby service water pumps and supporting systems are installed in pump houses to protect the systems from adverse external conditions and events. In December, a spurious actuation of the standby service water pump house ventilation system caused a fan to start. In response, the licensee initiated a condition report and performed an operability evaluation which stated, in part, that the actuation of the fan would not impact the function of the standby service water system. The next morning, the inspectors reviewed the subject operability evaluation and found that the licensee had failed to consider the impact of the actual freezing environmental conditions and operations staff had not secured the fan after the spurious actuation, which had resulted in the pump-house temperatures dropping below the equipment design limit of 50 degrees F. Further review by the licensee showed that temperature detectors in the pump house had reached a low of 48.7 degrees Fahrenheit while the fans were operating. Plant personnel provided a calculation showing that the lowest temperature that could impact equipment function would have been 33.45 degrees Fahrenheit. The licensee subsequently revised the operability evaluation to properly account for the actual environmental conditions in the pump house. Since the licensee's

prompt operability evaluation and subsequent revisions concluded the equipment remained operable, with at least 16 degrees of margin, do you believe that this performance deficiency is “More-than-Minor”?

Exercise 6C Which of the following screening questions could be answered ‘yes’ to get “More-than-Minor?”

Exercise 6D Proposed performance deficiency: Failure to follow procedure and perform an adequate past operability evaluation of a degraded pressurizer power operated relief block. During a refueling outage, the licensee performed in-service testing on a pressurizer power operated relief block valve, and determined that the valve failed to generate the required thrust in the closing direction. The licensee documented the failure in a condition report and corrected the condition. The licensee subsequently performed an evaluation that determined the valve would have been capable of performing its design basis safety function for a steam generator tube rupture as described in the accident analysis. Therefore, the licensee concluded the valve was always operable. The inspectors agreed with licensee’s assessment that the valve was capable of meeting its USAR accident analysis functions. However, the inspectors challenged the licensee’s determination that the valve met all of its technical specification required safety functions. Specifically, the inspectors determined that one of the safety functions of the block valve included isolation of a stuck open power operated relief valve with the reactor coolant system at high pressure following a transient. The inspectors concluded that the block valve was not capable of isolating a stuck-open power operated relief valve with the reactor coolant system at high pressure following a transient due to its degraded closing thrust and was therefore inoperable in the past. The inspectors documented this licensee-identified violation for “Inadequate Lubrication of a Pressurizer Power Operated Relief Block Valve.” In addition, a performance deficiency was identified for failure to follow procedure and perform an adequate past operability evaluation of a degraded pressurizer power operated relief block. Since the licensee’s prompt operability evaluation and subsequent revisions concluded the equipment remained operable, do you believe that this performance deficiency is “More-than-Minor?”

Exercise 6D Which of the following screening questions could be answered ‘yes’ to get “More-than-Minor?”

Exercise 6A Considering that the 4 gpm limit was not exceeded, and licensee was trending the increased leakage, do you believe that this performance deficiency is “More-than-Minor?”

Exercise 7A While reviewing SAT transformer protection relay settings calculations, the inspectors identified design calculation CALC-1234 had inadequate design inputs. Specifically, the transformer overcurrent relay trip setpoints did not ensure protection coordination with the upstream protective devices for postulated 345KV system faults as neither the values of fault current contributions from the SAT nor the fault clearing times by 345KV protective relays were provided in the SAT overcurrent relay setting calculation CALC-1234. The inspectors had reasonable doubt the SAT overcurrent relays would have provided upstream directional discrimination to allow the offsite power to clear 345KV system faults before disconnecting the plant from the grid. This would have increased the likelihood of events that upset plant stability and affected the availability and reliability of the preferred alternating current AC power. The issue was entered into the licensee’s Corrective Action Program. The licensee believes the system remains operable, but has decided to contract out the analysis to an engineering firm.

The analysis will not be completed for a least another 18 months. Is there a performance deficiency?

Exercise 7A Based on the above facts, do you believe there is a finding (i.e., More-than-Minor performance deficiency)?

Exercise 7A If left uncorrected, would there be a potential to lead to a more significant safety concern?

Exercise 7B Inspectors identified that the licensee failed to calculate the NPSH for the CCW pumps using the runout flows, which would have resulted in much lower available NPSH. Specifically, the licensee calculated the available NPSH for the CCW pumps based on the normal CCW flow of 3,918 gallons per minute (gpm) rather than accident condition flows that would exceed 5,000 gpm per pump. The licensee did not determine the required NPSH at 3,918 gpm but rather at 4,800 gpm (the design of the pump) in that calculation. The required NPSH at 4,800 gpm was 16 feet while the available NPSH was 73.8 feet, a margin of 57.8 feet. That analysis did not have a basis for limiting the pump flows to 3,918 or 4,800 gpm rather than post-accident or runout flows. However, it may take some time to isolate the non-essential loads, and each CCW pump may be running at close to runout flow of 7,300 gpm before those loads are isolated. At runout flow the available NPSH margin is significantly smaller. The licensee entered this issue into their Corrective Action Program. The licensee subsequently performed a calculation which showed that a margin of 6.64 feet remained in the CCW pump NPSH during potential runout conditions. Is there a performance deficiency?

Exercise 7B Based on the above facts, do you believe there is a finding (i.e., More-than-Minor performance deficiency)?

Exercise 7B Which of the following facts is the key to determining whether or not a performance deficiency is More-than-Minor in this situation?

Exercise 7B Please add any additional considerations which you would factor in to determine whether this is a violation, performance deficiency, or finding as appropriate.

Exercise 7C The inspectors identified that the safety related 125 Vdc battery rack end rails were not installed within 1/8 inch from the battery. The inspectors found one battery rack end rail gap for battery 2P greater than 1/8 inch and up to approximately 1/4 inch. All other gaps between the batteries and end rails were snug, within 1/8 inch. The rack end rails are designed to ensure the battery was adequately constrained from sliding along the rack to avoid over stressing the battery terminals, battery casing, or rack end rails during a seismic event. The inspectors reviewed the battery seismic qualification report and vendor manuals which both documented that the tested conditions for the battery end rails were "snug fitting" and the end rails were to be placed within 1/8 inch from end cells. The inspectors reviewed the work that replaced battery 2P and determined the work order did not include a specific gap requirement between the battery rack end rails and battery. The licensee entered the concern into its Corrective Action Program which stated that the battery was seismically qualified by test with the battery rack end rails snug against the battery. The licensee also concluded that any sliding during an earthquake event would be minimal due to friction between the battery and battery rack rails and the battery rack system would be functional during a design basis earthquake with the oversized gap. During the inspection period, the inspectors verified the licensee installed a shim and readjusted the battery rack end rail gap to within the design basis requirements, correcting the nonconforming

condition. Is there a performance deficiency?

Exercise 7C Based on the above facts, do you believe there is a finding (i.e., More-than-Minor performance deficiency)?

Exercise 7C Which of the following screening questions could be answered 'yes' to get "More-than-Minor?"

Exercise 7D Surveillance procedures SP-38-102A "Station Battery Load Test," was scheduled to be performed every 5 years to ensure that 125 Vdc safety station battery capacity was equal to or greater than 100 percent. During the review of the most recent battery test data, the inspectors noted that the battery terminal voltage dropped down to approximately 114 Volts during the first minute of the discharge. The inspectors also noted that although, the battery terminal voltage was monitored during the entire discharge test, the procedures did not include acceptance criteria for the battery terminal voltage during the first minute. The only battery terminal voltage requirement required operators to terminate the test when the terminal voltage reached 105 Volts. The inspectors noted that the DC voltage drop calculation used a minimum battery terminal voltage during the first minute as 116 Vdc. This terminal battery voltage was the basis for the calculated minimum voltage value for available safety related DC loads during the first minute in the event of loss offsite power conditions. Therefore, the inspectors determined that the acceptance criteria specified in test procedures SP-38-102A did not reflect the minimum values assumed in the design calculations. The test did not assure that the batteries had adequate voltage during the first minute to perform their safety functions. The licensee performed preliminary evaluation using a battery terminal voltage of 114 Vdc and concluded that the voltage supplied to safety related DC components was adequate, components would still perform their required safety functions, and a 3 Vdc margin remained available. The licensee also issued CAP 042342 to revise acceptance criteria in procedures to include a minimum voltage value for the first minute. Is there a performance deficiency?

Exercise 7D Based on the above facts, do you believe there is a finding (i.e., More-than-Minor performance deficiency)?

Exercise 7D Which of the following facts is the key to determining whether or not a performance deficiency is More-than-Minor in this situation?

Exercise 7D Please add any additional considerations which you would factor in to determine whether this is a violation, performance deficiency, or finding as appropriate.

Exercise 7E The inspectors identified that the licensee failed to provide design control measures to account for motor control center (MCC) voltage dips in motor operated valves (MOV) calculations that occur when large ESF motors are started at the onset of an accident.

Specifically, the licensee's calculations relied upon the initial voltage at the MCC based upon steady-state voltage conditions and did not account for the MCC voltage dips that occur when large safety related motors are started at the onset of an accident. As a result, the calculations failed to demonstrate that the MOVs' voltage would be adequate throughout load sequencing to prevent the MOVs from temporarily stalling and subsequently experiencing reduced torque due to increased motor temperature. Therefore, the torque capability calculations for these MOVs did not demonstrate that the voltage would be adequate throughout load sequencing to prevent the MOVs from temporarily stalling and subsequently experiencing reduced torque due to increased motor temperature. In response to the inspectors' concern, the licensee initiated Condition

Report 4942, "CDBI: Potential MOV Stalls Not Proven by Calculation to Not Occur," and prepared a preliminary evaluation of the effects of potential stalling. The results of that evaluation showed that the maximum torque reduction would be 15 percent and that MOVs had a minimum of 15.2 percent torque margin (0.2 net margin). Based on this evaluation, the licensee concluded that there was reasonable assurance of MOV operability pending a formal re-analysis. Is there a performance deficiency?

Exercise 7E Based on the above facts, do you believe there is a finding (i.e., More-than-Minor performance deficiency)?

Exercise 7E Which of the following facts is the key to determining whether or not a performance deficiency is More-than-Minor in this situation?

Exercise 7E Please add any additional considerations which you would factor in to determine whether this is a violation, performance deficiency, or finding as appropriate.

Primary Factors What do you believe is the degree of influence each of the following primary factors exerts on the observed regional differences in the number of PIM-reported findings

Secondary Factors Rate the degree of influence each of the following factors has on identifying a "performance deficiency."

Please offer any insights you may have on whether a "performance deficiency" is identified.

Secondary Factors Rate the degree of influence each of the following factors has on determining whether a performance deficiency is "more-than-minor" (a.k.a. a "finding") during inspection.

Secondary Factors Rate the degree of influence each of the following factors has on determining whether a finding is "licensee-identified" during inspection.

Did you see or discuss the specifics of this exercise, or portions of it, with anyone before beginning it?

If you discuss this exercise, or portions of it, with anyone before beginning it, do you believe your response were influenced?

General Survey Question 1 Select the basis or bases for a performance deficiency being More-than-Minor? (Select all that apply)

General Survey Question 2 Briefly describe how you would use IMC 0612 Appendix E and what action you would take if the Example in IMC 0612 Appendix E didn't agree with the IMC 0612 App B screening question.

General Survey Question 3 Given a violation and performance deficiency (PD) associated with a licensee's failure to provide complete and accurate information. Without doing any research, select all true statements from the list below.

How important is addressing the current causes of the regional screening differences (or current degree of regional variance) to enhancing:

May we contact you if we have additional questions on your survey responses? If so please provide your name, otherwise leave blank.

Additional comments.