FACILITY POST-EXAMINATION COMMENTS AND NRC RESOLUTIONS

A complete text of the licensee's post-examination comments can be found in ADAMS under Accession Number MLXXXXXXX.

Question # 57, 103K1.02

Comment: The question gives a set of plant conditions and asks based on those conditions what isolation feature has not functioned correctly. The facility recommends that there is no correct answer and that the question should be deleted from the exam.

Facility Basis:

This question requires the candidate to determine, from the given information, the Containment Isolation function that has failed and the actions required by EOP-1.0, REACTOR TRIP/ SAFETY INJECTION ACTUATION to respond to the malfunction. The following is given as a condition:

- The following Containment Isolation Valve MCB Status Lights are BRIGHT:
  - RCP SL WTR ISOL 8100
  - LTDNISOL8152

During the examination, one candidate asked the proctor for the panel and the entire set of words as they are read on the status lights. While this does not have a bearing on any candidate's contention of this question, it is included here for completeness. After consultation with the chief examiner, the panel numbers were not given but the sub-bullets were expanded to read as follows (changes are bolded):

- The following Containment Isolation Valve MCB Status Lights are BRIGHT:
  - RCP SL WTR ISOL 8100 CLSD
  - LTDN ISOL 8152 CLSD

The BRIGHT indication as stated in the given condition is actually the condition that indicates that the associated valves have closed properly to isolate containment

This was true for both the original and changed version of the question. Thus, the premise of a malfunction is invalid because no information is given that indicates that either a Phase A or Phase B containment isolation failure has occurred. There is, therefore, no correct answer.

NRC Resolution: Recommendation accepted. There is no condition given in the question that would suggest that a failure of Phase A or Phase B had occurred. This question will be deleted from the exam.

Question # 62, G2.2.39

Comment: The question asks that if a RCP is lost while at 2% power, what actions would satisfy the TS requirement to be in Mode 3 in one hour. The facility recommends that there are two correct answers.

Facility Basis:

This question requires the candidate to identify an action that will satisfy technical specifications, if performed within one hour, after a RCP trip due to a loss of a 7.2 KV bus in while in Mode 2.

In accordance with 3/4.4.1 REACTOR COOLANT LOOPS AND COOLANT CIRCULATION, the plant must be taken to Mode 3 within one hour.

The definitions for Modes 2 and 3, in accordance with V.C. Summer Technical Specifications, are as follows:

- Mode 2 (STARTUP) KEFF>O. 99, Rated Thermal Power <5%, and Average RCS Temperature >350°F
- Mode 3 (HOT STANDBY) KEFF < 0.99, Rated Thermal Power <0%, and Average RCS Temperature >350°F

Answer B. states that only the Control Rods will be driven in to 0 steps. During a Startup in accordance with GOP-3, REACTOR STARTUP FROM HOT STANDBY TO STARTUP (MODE 3 TO MODE 2), Mode 2 is procedurally entered after the withdrawal of Shutdown Banks and before withdrawal of Control Bank A. This procedure served as the technical basis for the question.

In GOP-5 REACTOR SHUTDOWN FROM STARTUP TO HOT STANDBY (MODE 2 TO MODE 3), however, Mode 3 is entered after all Control Banks have been fully inserted and the option is contained in the procedure to leave Shutdown banks withdrawn. It can be assumed that the Mode 3 shutdown margin requirements were met prior to the startup in accordance with Technical Specifications and procedures. Insertion of the Control Rods to 0 steps as stated in B. would therefore restore the reactivity required for Mode 3. This makes answer B. correct.
V.C. Summer requests that both answers B and D be accepted as correct answers.

NRC Resolution: Recommendation accepted. The question states that the plant is at low power when a loss of an electrical bus occurs. The question asks which condition will satisfy Technical Specification requirements for these plant conditions. The applicant is expected to determine that a shutdown to Mode 3 is required within one hour. The correct answer was a manual trip of the reactor. One other answer was to insert the Control Bank Rods ONLY. This was assumed to be incorrect due to being in the Startup procedure which required declaring transition to Mode 2 before the Shutdown Bank Rods were withdrawn. The logic being that the Shutdown Banks would have to be inserted before Mode 3 would be declared when shutting down.

The shutdown procedure however, directs insertion of the Control Bank Rods then gives the option of inserting the Shutdown Bank Rods before declaring Mode 3.

Integral Rod Worth data from the VC Summer curve book supports the fact that inserting Control Bank rods from Bank “D” at 115 steps (as stated in the question) to all Control Bank rods “in” would add sufficient reactivity to decrease Keff to < 0.99. Therefore, with ONLY the Control Bank rods inserted, the plant meets the Tech Spec definition of Mode 3 and therefore, Tech Spec requirements are satisfied.

Answer selection “B” is to be used as the correct answer as well as choice “D”.

Question # 96, G2.2.17

Comment: The question asks what position or group authorizes the start of work for an ORANGE risk activity. The facility recommends that there is no correct answer and that the question be deleted from the exam.

Facility Basis:

This question requires the candidate to identify the factors used for calculating EOOS (Equipment Out Of Service) Risk and the position or group that must approve the work for an ORANGE risk activity.

Candidates expressed that the second question was worded incorrectly, specifically, in the use of the words "authorizes the start of work". Procedure SAP-102, STATEMENT OF ESPONSIBILITIES, OPERATIONS establishes the responsibilities for authorizing work activities, as follows:

B. The 'Work Control Center Senior Reactor Operator (WCC SRO) is responsible for:

1. The WOO SRO reports to the Work Control Supervisor.
2. Acting as Tagout Authorizer and Work Authorizer for the implementation of scheduled activities.
3. An SRO or Shift Engineer can assume the duties of the WCC SRO.
   a. The Work Control Center Auxiliary Operator (WOO AO) is a qualified Danger Tagger and reports to the WOO SRO.

6.0 PROCEDURE

6.1 Specific administrative procedures and implementing procedures detail the means of performance of specific tasks to fulfill the Operations Department responsibilities. While additional management approvals for elevated risk activities are required, authorization to actually start work is the responsibility of those individuals delineated in SAP-102 as stated above. Since the GMNPO, Management Duty Supervisor and the Plant Safety Review Committee are not cited in SAP- 102, there is not a correct answer.

NRC Resolution: Recommendation not accepted. In OAP-102.1 CONDUCT OF OPERATIONS SHCEDULING UNIT it specifically states in 6.1.a.4)c) the required approval levels for High, Elevated or Moderate Risk Level that (2) Elevated Risk level (ORANGE) – Requires GMNPO/MDS approval to work. This question was asking for upper level approval due to the risk impact with the choices being GMNPO / Management Duty Supervisor **OR** the Plant Safety Review Committee. The Work Control Center SRO does not appear in the question as an option. Since there were no questions asked during the exam about this question, it is an adequate assumption that the applicants knew the intent of this question. No changes will be made.