

FY18 MS2 Written Exam

Post Exam Comments

Question #22

Comment: Choice "B," "Start Mechanical Vacuum Pumps," should also be accepted as a correct answer.

Question #22 postulated entry into AOP 2574, Loss of Condenser Vacuum, with degrading condenser vacuum at 3.0 inches and getting worse. The conditions of the stem were stated such that the override of AOP-2574 to "Lower reactor power and main turbine load" was the correct answer with the distractor answers precluded by the stem conditions. Distractor "B" was precluded by the fact that stem conditions of condenser vacuum at 3.0 inches and getting worse, did not meet the abnormal procedure requirement to start the mechanical vacuum pumps when vacuum degrades to 4.0 inches.

As allowed by OP-AOP-104, Emergency and Abnormal Operating Procedures, operators would be allowed to commence the actions to place the mechanical vacuum pumps in service prior to reaching the 4.0 inch criteria.

The licensee has revised AOP 2574 to direct that the mechanical vacuum pumps be started if condenser backpressure is greater than 3.0 inches and degrading towards 4.0 inches Hg.

NRC accepts the licensee position of this comment and agrees that Choice B is a second correct answer to Question #22, for the above stated reasons.

Question #53

Comment: Choice "B," "Monitoring for the Ultimate Heat Sink while performing thermal Backwashing with all information available," should also be accepted as a correct answer.

Question #53 provided four evolutions and required the candidate to determine which evolution could not be performed in the control room and thus required the utilization of plant equipment operators (PEO). The evolutions listed included A. Changing RBCCW Heat Exchanger SW flow control mode in preparation for Thermal Backwashing, (accomplished by shifting the temperature control valves to summer mode). This was identified as the correct answer as this task can only be completed in the intake structure.

The other listed evolutions involved: B. UHS Monitoring (performed using the PPC); C. Isolation of leaking cooling coil (accomplished via an automatic isolation); D. Verification of SW pump flow for Tech Specs (accomplished via MCR instrumentation). These evolutions could either be performed from the MCR or were automatically performed without PEO involvement in the field.

The licensee presented information that establishes that the plant uses a dedicated PEO in communication with the main control room during the performance of Thermal Backwashing to monitor local instrumentation for temperature effects on the UHS. This monitoring is in addition to the monitoring performed using the PPC.

NRC accepts the licensee position of this comment and agrees that Choice B is a second correct answer to Question #53, for the above stated reasons.

Question #59

Comment: Choice "A," "Highest of power range nuclear instruments and Delta T power, power range monitor LINEAR Power LED light goes out when the LED Reset is toggled," should also be accepted as a correct answer.

The intention of the question was to test the candidate's knowledge of how to determine if the turbine trip was bypassed during a plant shutdown. The indication is found on the power range monitor drawer, and the trip bypass status is determined by the status of the LINEAR Power LED.

The licensee position is that, if the question is read as a two part question, the Choice "A" is a correct answer.

The first half of the question, what power indications are used during shutdown? The correct answer for that is "Highest of power range nuclear instruments and Delta T power."

The second half of the question, what indications will the operators have that the turbine trip is bypassed in RPS? The correct answer is "power range monitor LINEAR Power LED light goes out when the LED Reset is toggled."

NRC accepts the licensee position of this comment and agrees that Choice A is a second correct answer to Question #59, for the above stated reasons.

Question #62

Comment: Choice "C," "The SFP will drain to the suction line siphon breaker and the running SFP cooling pump will automatically trip on low suction pressure," is a second correct answer.

Question #62 postulated a leak in the Spent Fuel Pool cooling system between the pumps and the heat exchangers and solicited the candidate to determine the impact of the leak.

The licensee position is that the SFP will lose level via the leak and the SFP cooling pumps will eventually seize and trip on overload. The pump seizure is due to the pump running dry and overheating. The licensee then states that this trip is a result of low suction pressure to the pump.

The NRC position is that the SFP Cooling Pump control circuit does not have an automatic trip for low suction pressure (similar to a feed pump trip on low suction pressure).

NRC rejects the licensee position of this comment and disagrees that Choice C is a second correct answer to Question #62, for the above stated reasons.