POV Public Meeting Scenarios for Discussion

Scenario One:

While examining a licensee's MOV program, the inspectors identified that the Emergency Service Water/Service Water isolation valves were not included within the scope of a licensee's comprehensive valve testing program as required by 10 CFR Part 50.55a(b)(3)(ii), "Motor-Operated Valve Testing." Specifically, although the valves received static testing once per refueling outage, the licensee never analyzed the valves to establish their design basis capability. The plant FSAR indicates the valves are required to close within 30 seconds to establish adequate cooling water flow to safety-related cooling coils located in containment. The licensee maintains that their current static testing program for the isolation valves was adequate to verify operability and notes that the NRC "approved" the current testing program for the valves during the 1990s during a series of on-site inspections. Indeed, the licensee has produced two NRC inspection reports from the 1990s that stated that the licensee's MOV testing program was adequate/acceptable. Both reports indicated that the testing status of the isolation valves was reviewed by inspectors. The licensee has stated that subjecting the isolation valves to additional testing is unwarranted since the current testing approach had been reviewed previously by the NRC and determined to be acceptable. The licensee contends that subjecting the valves to additional dynamic testing or analysis is a backfit and senior licensee management has contacted the NRC's regional management to voice concerns regarding the NRC inspection team's position on the issue.

Questions:

Is the licensee's position regarding the testing of the ESW valves acceptable?

If not, what action(s) does the licensee need to take?

Is subjecting the ESW/SW valves to additional testing a backfit?

To support the current operability of the ESW isolation valves, the licensee has analyzed the valves using a methodology developed by Commonwealth Edison in the late 1990s. When reviewing the analysis, searching ADAMs and searching the internet via Google, the inspectors note that the NRC has never prepared a safety evaluation report that approved the Commonwealth Edison methodology commonly known as ComEd White Paper 125 Revision 4. Is the licensee's use of this approach acceptable? Why or Why not?

Has the team identified a performance deficiency based upon the information provided? If so, what is the performance gap?

Scenario Two:

During an inspection of a licensee's MOV program, the inspectors noted that the licensee was using a valve factor of 0.4 in the thrust design calculations for the PORV Block Valves installed at the plant. The valves of concern are six-inch Copes-Vulcan gate valves that the licensee has classified as low-margin valves per their MOV program. Typically, licensees have used a valve factor of 0.5 when analyzing similar PORV block valves installed at other reactor plant sites.

The 0.5 valve factor used at other plants was based upon the results of dynamic testing. There is no dynamic test data for these specific Copes-Vulcan valves in the industry. Dynamic testing of the PORV block valves at this site is not possible without installation of a plant modification. The licensee's POV engineer indicated that the 0.4 valve factor was selected based upon engineering judgment and is an increase from the 0.3 valve factor that was assumed during initial plant construction. The inspectors noted that the block valves could exceed their structural limit if a valve factor of 0.5 was used. The licensee indicated that the block valves have been performing well during static testing. They do not exhibit seat or packing leakage and periodic static testing has not detected any degradation.

To justify the adequacy of the current valve setup and testing program, the licensee has provided the inspectors with a report by the Electric Power Research Institute (EPRI) that indicates static testing can be an adequate predictor of valve performance during a design basis event. The report, "Using Motor-Operated Valve (MOV) Static Diagnostic Testing to Diagnose Valve Degradation: MOV Trace Analysis Guideline" has not been reviewed by the NRC.

Questions:

Based upon the information that you have, has the licensee provided sufficient information to confirm the PORV Block valves will properly operate during a design basis event? If not, what information is needed and when should the information be provided to the inspection team?

In response to the team's continued questions regarding the operability of the PORV block valves, the licensee has contracted with a vendor to review the current valve settings and provide additional confidence to the licensee and NRC inspection team that the valves are operable. Using their proprietary "Vendor" Valve and Actuator Program (VVAP) software program, "Vendor" has determined the valves are capable of meeting their design basis function. This analysis was completed before the team exit meeting.

Has the licensee provided sufficient information to prove the valves will perform their design basis function?

Has the team identified a performance deficiency based upon the information provided? If so, what is the performance gap?