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## **ABSTRACT**

Course content & approach are structured for MOV/IST Program Owners focusing on the following key areas:

- MOV Regulatory Requirements
- GL 89-10/GL 96-05 Background Overview
- IST/MOV Requirements through the 2004 Edition and 2006 ASME OM Code Addenda
- Relief Request Overview
- Benefits/Comparison of MOV Programs
- Rules for OMN-1/Appendix III Transition (OM Code 2012 Edition).
- Application of Risk
- Continuing MOV Concerns (vibration, magnesium rotors, MC2 Testing, etc.)
- Current issues and interfaces with emphasis on industry/Code initiatives and solutions.
- In-situ MOV failures identified by NRC Bulletin 85-03

## TERMINAL LEARNING OBJECTIVES

The key learning objectives will cover the following technical areas:

- 1. Understanding of MOV design basis
- 2. Understanding of MOV operation and controls
- 3. Understanding of MOV diagnostic testing methods
- 4. Understanding of MOV diagnostic test analysis methods
- 5. Understanding of typical MOV degradation mechanisms
- 6. Understanding of in-situ MOV failures identified by NRC Bulletin 85-03
- 7. Understanding of MOV design errors identified by Generic Letter (GL) 89-10
- 8. Understanding of GL 89-10 scope and requirements
- 9. Understanding of GL 89-10 industry findings
- 10. Understanding of GL 96-05 scope and requirements
- 11. Understanding of Joint Owners Group (JOG) program and impact on GL 96-05
- 12. Understanding of ASME OM Code Case OMN-1
- 13. Understanding of ASME OM Code Mandatory Appendix III
- 14. Understanding of NRC proposed rulemaking applicable to Appendix III
- 15. Understanding of Mandatory Appendix III implementation requirements

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## **KEY INDUSTRY DOCUMENTS**

- NRC Bulletin 85-03, Motor-Operated Valve Common Mode Failures During Plant Transients Due to Improper Switch Settings
- 2. NRC Generic Letter 89-10, Safety-Related Motor-Operated Valve Testing and Surveillance
- 3. NRC Generic Letter 96-05, Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves
- 4. ASME Code Case OMN-1, Alternative Rules for Preservice and Inservice Testing of Active Electric Motor-Operated Valve Assemblies in Light-Water Reactor Power Plants, Rev 0/1
- 5. NUREG 1482, Revision 2, Guidelines for Inservice Testing at Nuclear Power Plants: Inservice Testing of Pumps and Valves and Inservice Examination and Testing of Dynamic Restraints (Snubbers) at Nuclear Power Plants Final Report
- 6. Regulatory Guide 1.192, Operation and Maintenance Code Case Acceptability, ASME OM Code
- 7. Regulatory Issue Summary 2011-13, Follow Up to Generic Letter 96-05 for Evaluation of Class D Valves Under Joint Owners Group Motor-Operated Valve Periodic Verification Program
- ASME OM Code 2004 Edition, 2006 Addenda, Section ISTC, Inservice Testing of Valves in Light-water Reactor Nuclear Power Plants
- 9. ASME OM Code 2012, Section ISTC, Inservice Testing of Valves in Light-water Reactor Nuclear Power Plants
- 10. ASME OM Code 2012, Mandatory Appendix III, Preservice and Inservice Testing of Active Electric Motor Operated Valve Assemblies in Light-Water Reactor Power Plants