Hemyc and MT Electrical Raceway Fire Barrier System

Regulatory Perspectives

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NRC Mission

- The mission of the NRC is to license and regulate the Nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, promote the common defense and security, and protect the environment.

Inception of Current Fire Barrier Issue (1)

- The fire protection regulations ensure that each plant maintains the ability to achieve and maintain safe shutdown after a fire.
- Hemyc and MT ERFBS may currently be credited by plant-specific fire protection programs as a rated fire protection barrier to meet regulatory requirements and commitments.

Inception of Current Fire Barrier Issue (2)

- NRC inspections revealed that the licensee's fire testing and acceptance criteria used to determine the fire resistive performance of Hemyc and MT ERFBS installed to separate safe shutdown functions within the same fire area require further NRC review to determine their acceptability.
- The NRC was concerned that the Hemyc and MT ERFBS may not fulfill the requirement of a rated fire barrier as required by Appendix R to 10 CFR Part 50 or plant specific licensing bases in all applications.

NRC Testing of Hemyc

- Office of Regulatory Research (RES) tested the Hemyc ERFBS at Omega Point Laboratories in March 2005.
- RES tested the MT ERFBS at Omega Point Laboratories on April 25, 2005.
- RES tested Hemyc and MT using the NRC's current test methods and criteria (see Regulatory Guide 1.189) and based on that criteria the testing showed Hemyc to have a fire rating of less than one hour and MT to have a fire rating of less than three hours.

Compliance Implications (1)

- At a less than one-hour rating capability for Hemyc, and less than three hour rating for MT, these ERFBS may result in non-compliances.
- The NRC staff has shared the test results with licensees so they can implement appropriate compensatory measures and develop plans to resolve any non-compliances.
- The NRC staff has issued an information notice to report the results for Hemyc
- The NRC staff has shared the MT test results with licensees

Compliance Implications (2)

- The NRC plans additional communications to assure licensees are taking appropriate actions
- Available compliance options:
  - Restore to rated fire barrier
  - Evaluate specific installations, and if safety is assured, submit exemption or license amendment for NRC approval, as applicable
  - Adopt 10 CFR 50.48(c), National Fire Protection Association (NFPA) 805, Performance Based Fire Protection Rule

Treatment of Fire Protection Findings

- Licensees must come into compliance, even for low risk-significance items
- Risk-informed tools are available such that the resolution can be consistent with the safety significance of the issue