



NUCLEAR ENERGY INSTITUTE

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December 28, 2001

Mr. Daniel Frumkin
Fire Protection Engineer
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Mail Stop O11-A11
Washington, DC 20555-0001

SUBJECT: Promatec Hemyc 1-Hour and MT 3-Hour Fire Barrier Systems

PROJECT NUMBER: 689

Dear Mr. Frumkin:

Enclosed is information on the configurations for the Promatec Hemyc and MT fire barrier materials used by a number of licensees. This is in response to your request for feedback from these licensees in order to optimize the Hemyc and MT fire tests that NRC is planning. We request that the configurations described in the enclosure be represented to the maximum extent possible in the test configurations. If you require additional information on these configurations please contact me at 202-739-8086, fae@nei.org.

We look forward to working with NRC to assure that the tests closely represent industry configurations, and provide unambiguous conclusions as to the capabilities of these materials. We would appreciate further information, as it becomes available, concerning the plans and schedules for the testing.

Sincerely,

A handwritten signature in black ink that reads 'F. A. Emerson'.

Frederick A. Emerson

F AE/maa
Enclosure

c: Mr. Eric W. Weiss, U. S. Nuclear Regulatory Commission
Mr. Richard J. Laufer, U. S. Nuclear Regulatory Commission

**Promatec Hemyc 1-Hour and MT 3-Hour Fire Barrier System
Configurations
Industry Input to NRC Testing
12-20-01**

Hemyc Configurations

Air Drops

A majority of utilities utilize cable airdrop configurations with spacers between the cable and fire wrap. A limited number of direct wrap airdrop installations were identified.

Thermal Short Length

Intervening items such as conduit and tray supports are protected with Hemyc fire wrap for a distance of 3" to 12". The majority of the thermal short installations are in the 3" or 6" range.

Conduit Sizes

A majority of the conduits are direct wrapped in a size range from 1" through 4" in diameter. Some limited quantities of ½", ¾" and 5" conduits were also identified. These installations include single or multiple wrapped conduit configurations fully enclosed with Hemyc material. In addition, the single or multiple wrapped configurations can also be installed against the concrete walls/floors resulting in the Hemyc wrap being flared against the concrete.

Cable Trays

A majority of cable tray sizes are in the 18" to 30" wide range with internal structural framing to provide an air gap between the tray and fire wrap. Some limited quantities of 4", 6" and 12" wide installations are also installed with direct wrap configurations. As noted for the conduit configurations, the cable tray installations also include single and multiple wrapped tray configurations that are fully enclosed or flared against the concrete.

Junction Boxes

A majority of junction box installations range from 12" x 18" x 10" up to 24" x 6" x 12". The junction box configurations include both direct wrap and internal frame for air gap (similar to cable tray).

Joint Configuration

Cable trays - Joints are overlapped by 2" and are sewn together and/or bolted to the internal framing.

Conduits – A majority of conduit joint configurations are butted together and covered with a minimum of a 6" long collar that overlaps the joint by a minimum of 2". A small number of configurations have the joints overlapped by 2" and are sewn together or banded and some have collars up to 12" in length with a minimum overlap of 4".

MT Configurations

Air Drops

None.

Thermal Short Length

Intervening items such as conduit and tray supports are protected with Hemyc fire wrap for a distance of a minimum of 6".

Conduit Sizes

A majority of the conduits were direct wrapped in a size ranged from 1" through 4" in diameter. In addition, the single or multiple wrapped configurations can also be installed against the concrete walls/floors resulting in the Hemyc wrap being flared against the concrete.

Cable Trays

None

Junction Boxes

A majority of junction box installations ranged from 12" x 24" x 10" up to 6' x 6' x 2'. The junction box configurations include direct wrap fully enclosed or flared against the concrete.

Conduit Joint Configuration

Conduits – The conduit joint configurations lap jointed for a minimum of 6" and attached with lacing hooks and stainless steel tie wire.