NIAGARA MOHAWK

NMP-8954

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July 12, 1984

Mr. Richard C. DeYoung, Director
Office of Inspection and Enforcement
USNRC
Washington, D.C. 20555

Reference: I & E Bulletin 84-02

Dear Mr. DeYoung:

IEB 84-02 instructs Nine Mile Point Unit I to:

a. "Develop plans and schedules for replacing (1) nylon or Lexan coil spool-type HFA relays used in normally energized safety-related applications and (2) nylon coil spool-type HFA relays used in normally de-energized safety-related applications."

Nine Mile Point plans to replace HFA relay coils or complete relays during the next refueling, which is currently scheduled for the Spring of 1986.

b. "During the period before relay replacement, develop and implement surveillance plans that include:

(1) Monthly functional tests of all reactor trip system normally energized relays that verify relay contacts change state when the relay coil is de-energized;

(2) Visual inspections of all safety-related normally energized relays as soon as practical upon receipt of this bulletin. Thereafter, similar inspections should be accomplished in conjunction with the monthly functional test. These visual inspections should verify that relay coils are not deteriorating (e.g., inspect coil bobbins for visible cracks or melting), and should confirm cleanliness of the relay pole pieces."

Nine Mile Point Technical Specifications require checks of most reactor trip functions at least monthly, and most HFA relays have therefore been verified to change state when the relay coil is de-energized. Procedures have been reviewed and will be revised as necessary to assure and provide documentation that all normally energized reactor trip system HFA relays are verified to change state when de-energized. These changes will be in effect by September 1, 1984.

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Visual inspection of all HFA relays, both normally energized and normally de-energized, in both safety and non-safety related systems was completed prior to startup from the recent refueling outage. These inspections revealed no coil deterioration (e.g. no cracks or melting) and confirmed the cleanliness of relay pole pieces. This inspection was also performed in 1981 and 1983.

Visual inspection of all reactor trip system normally energized relays will be performed monthly. This procedure will be in effect by September 1, 1984.

c. "Provide a basis for continuing operation for the period of time until the normally energized relays are replaced. This basis should include a discussion of those measures addressed in Items 1a and 1b and any other preventive and/or corrective measures taken or planned."

Nine Mile Point Unit #1 replaced safety related HFA relays or coils in 1977 in response to NRC and General Electric concerns. Since that time, one of these has failed, not due to the coil, and it failed in the conservative direction. NMP-1 Technical Specifications require at least monthly surveillances on RTS parameters except for Manual Scram, Main Steam Line Isolation Valve Position, Turbine Stop Valve Closure, and Shutdown Position of the reactor mode switch. Of these, Manual Scram does not utilize HFA relays, and Shutdown Position of the reactor mode switch utilizes normally de-energized relays. Turbine Stop Valve Closure is tested monthly. The MSIV Position Scram will be checked monthly by pulling a fuse to de-energize the HFA relay. This procedure will be in effect by September 1, 1984.

Based on 1) low failure rate of the RTS and other safety related HFA relays at Nine Mile Point Unit #1, 2) the lack of evidence of the problem, based on three successive visual examinations in 1981, 1983, and 1984, 3) a monthly surveillance interval for test and visual inspection, 4) a failure tolerant "one out of two taken twice" logic system for both RTS and RPS, and 5) the age of the HFA relays currently being about seven years, the anticipated replacement age of nine years (replacement two years from now) verses the 10-12 year observed end of life, continued operation of Nine Mile Point Unit #1 is justified.

Past operating history and manufacturers recommendations on other types of relays are reviewed by the Operational Experience assessment and Equipment Qualification programs at Nine Mile Point. The schedule for completion of the Equipment Qualification Replacement Program is March 31, 1985.

Staff time to perform the review is approximately 200 man-hours. Staff time to prepare the documentation is approximately 80 man-hours.

Very truly yours,

Thomas E. Lempges

Thomas E. Lempges
Vice President - Nuclear Generation

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