

June 28, 2000

MEMORANDUM TO: Geoffrey E. Grant, Director  
Division of Reactor Projects  
Region III

FROM: Suzanne C. Black, Deputy Director */RA/*  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

SUBJECT: PALISADES PLANT - CLOSEOUT OF TASK INTERFACE  
AGREEMENT 99-032 REGARDING USE OF A  
NON-ENVIRONMENTALLY-QUALIFIED CABLE IN THE  
SAFETY INJECTION SYSTEM (TAC NO. MA7943)

The Office of Nuclear Reactor Regulation (NRR) staff has reviewed your request for technical assistance, dated January 4, 2000, pertaining to the use of a non-environmentally-qualified (non-EQ) cable installed during initial plant construction in an electrical circuit associated with the safety injection system at the Palisades Plant. The non-EQ cable, located inside the Containment Building, provides for power removal from a solenoid valve (SV-0347) that controls the air supply to, and allows for closure of, pressure control valve CV-0347. CV-0347 is located in a 1-inch line connected to the 12-inch outlet piping of safety injection tank T-82C, and performs a design and safety function by closing upon receipt of a safety injection signal (SIS) to prevent diversion of safety injection away from the reactor vessel after a loss-of-coolant accident. Rather than replacing the cable when it was discovered in 1994, the licensee installed a switch in the system's electrical circuit to automatically open during an SIS and isolate the non-EQ cable and solenoid valve from its power supply. Region III requested that NRR determine the acceptability of the licensee's prior actions at Palisades, whereby the non-EQ cable remains in a modified EQ circuit. Region III also requested that the NRR staff determine whether or not 10 CFR 50.49, "Environmental Qualification of Electric Equipment Important to Safety of Nuclear Power Plants," provides for modifying circuits and components to reduce the failure potential in lieu of installing qualified components.

NRR's Electrical and Instrumentation Controls Branch has responded to your request in D. Thatcher's memorandum dated June 23, 2000 (ADAMS Accession No. ML003722750). As discussed in that memorandum, the NRR staff finds that, because the licensee has modified the Palisades design in a manner that assures the removal of power from the solenoid valve during an accident and has completed evaluations demonstrating that the cable will not adversely impact any safety systems, structures, and components, the cable need not be included in the EQ Master Equipment List and is not required to meet qualification program requirements specified in 10 CFR 50.49. Regarding Region III's request for interpretation of

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10 CFR 50.49, the memorandum explains that this regulation neither precludes nor includes the use of modifications to reduce failure potential in lieu of installation of qualified components. Rather, it addresses what needs to be done for equipment that is required to be qualified for a harsh environment. As with this Palisades example, modifications can be made, and detailed analyses performed, such that specific equipment no longer requires qualification and, therefore, that equipment can be removed from the EQ Master Equipment List and the regulation no longer applies.

This concludes our efforts under TAC No. MA7943.

Docket No. 50-255

cc: M. Oprendeck, Region I  
L. Plisco, Region II  
K. Brockman, Region IV

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