

SAFETY EVALUATION
VERMONT YANKEE
CONFIRM ADEQUACY OF SPACE COOLING
FOR HIGH-PRESSURE COOLANT INJECTION
AND REACTOR CORE ISOLATION COOLING SYSTEM

STAFF POSITION

II.K.3.24 (NUREG-0737) Confirm Adequacy of Space Cooling for High-Pressure Coolant Injection (HPCI) and Reactor Core Isolation Cooling (RCIC) Systems

Long-term operation of the reactor core isolation cooling (RCIC) and high-pressure coolant injection (HPCI) systems may require space cooling to maintain the pump-room temperature within allowable limits. Licensee should verify the acceptability of the consequences of a complete loss of alternating current (AC) power. The RCIC and HPCI systems should be designed to withstand a complete loss of AC power to their support systems, including coolers, for at least 2 hours.

EVALUATION

By letter dated January 5, 1982, the licensee indicated that a review was conducted and it was determined that the HPCI and RCIC systems can withstand a complete loss of offsite AC power to the support systems, including coolers, for at least 2 hours. By letter dated April 14, 1999, as supplemented on October 6, 1999, the licensee again confirmed that the analysis determined that the existing design was sufficient to support RCIC and HPCI operation for at least 2 hours without offsite AC power available. The limiting component for operation was the Woodward electronic control system with a limitation of 150 °F. The licensee determined that sufficient heat sinks exist to ensure that the temperature would remain below 150 °F for the required period. The staff concludes that the standards of TMI Task Action Plan II.K.3.24 are satisfied since the licensee has confirmed that RCIC and HPCI systems are designed to withstand a complete loss of AC power to their support systems for at least 2 hours.

Principal Contributor: R. Croteau

Date:

Enclosure