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Vogtle Project

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October 14, 1985

Director of Nuclear Reactor Regulation
Attention: Ms Elinor G. Adensam, Chief
Licensing Branch #4
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

File: X6BB06
Log: GN-718

NRC DOCKET NUMBERS 50-424 AND 50-425
CONSTRUCTION PERMIT NUMBERS CPPR 108 AND CPPR-109
VOGTLE ELECTRIC GENERATING PLANT-UNITS 1 AND 2
CONTROL ROOM CABINET SMOKE DETECTION

Dear Mr. Denton:

Branch Technical Position (BTP) CMEB 9.5-1 Section C.7.b states that smoke detectors should be provided in the control room, cabinets, and consoles. Fire detection capability for the VEGP control room is provided by a combination of in-panel detectors and ceiling mounted area detectors. Fire detection for the control room consoles and cabinets, other than the main control board, is provided by more than 40 ceiling mounted ionization type smoke detectors per unit distributed throughout the control room and the immediate peripheral areas. These ceiling mounted detectors were located in accordance with National Fire Protection Association (NFPA) Code 72E with consideration given to the location of HVAC supply and return registers and expected air currents within the control room. The HVAC system has been designed to provide thorough mixing of the control room air. Slot type diffusers have been installed in the main control board area to further promote mixing. This design, together with the well-distributed network of smoke detectors, ensures prompt fire detection regardless of its point of origin. The mixing of the air also increases the likelihood of smoke detection by control room personnel. The control room is manned on a continuous basis.

Fire detection for the main control board will be provided by ionization type smoke detectors installed near the top of each section of the main control board. These detectors will augment the ceiling mounted detectors and provide additional assurance of early fire detection of potential fires in the main control board.

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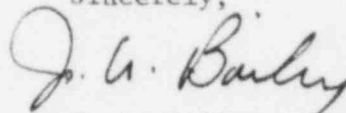
Seven of the 54 cabinets in the control room complex contain more than one train of redundant safe shutdown equipment. Within these cabinets, redundant trains have been separated so that a small fire in a single cabinet is not likely to disable both trains. This separation is a minimum of 6 inches with no barrier, or if less than 6 inches a sheet metal barrier or metal conduit is provided as specified in IEEE 384-74 as endorsed by Regulatory Guide 1.75.

If the fire does spread to redundant trains or makes the control room uninhabitable, alternate shutdown panels are located outside the main control room fire area to provide remote shutdown capability. Evacuation to the alternate shutdown panel requires no operator action in the control room prior to the evacuation, and complete electrical isolation between the control room and the alternate shutdown panels is accomplished through transfer switches.

The fire detection design for the VEGP control room provides early warning of a fire in the control room and is therefore an acceptable deviation from the requirements of CMEB 9.5-1, section C.7.b.

If your staff requires any additional information, please do not hesitate to contact me.

Sincerely,



J. A. Bailey

JAB/RLK/caa

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