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Dan A. Nauman
Vice President
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December 18, 1987

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Dr. J. Nelson Grace
Regional Administrator
U. S. Nuclear Regulatory Commission
Region II, Suite 2900
101 Marietta Street, N. W.
Atlanta, Georgia 30323

Subject: Virgil C. Summer Nuclear Station
Docket No. 50/395
Operating License No. NPF-12
Special Report (SPR 87-009)

Dear Dr. Grace:

Attached is a Special Report for the Virgil C. Summer Nuclear Station. This report is submitted in accordance with the requirements of Action Statement (b) of Technical Specifications Section 3.3.3.7, "Fire Detection Instrumentation."

Should there be any questions, please call at your convenience.

Very truly yours,

D. A. Nauman
D. A. Nauman

CJM/DAN:jez

Attachment

c: D. W. Dixon, Jr./T. C. Nichols, Jr.	R. L. Prevatte
E. C. Roberts	J. B. Knotts, Jr.
O. S. Bradham	Marsh & McLennan
E. R. Moore	I&E Washington
W. A. Williams, Jr.	Document Management Branch
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R. M. Campbell, Jr.	RTS
K. E. Nodland	NPCF
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EVENT DESCRIPTION

Fire detection Zone F on the 463'-0" elevation of the Control Building was declared inoperable on November 5, 1987 due to sporadic Integrated Fire Systems computer alarms. The zone was removed from service for maintenance troubleshooting into the cause of the alarms. A fire watch patrol was established in accordance with the requirements of Action Statement (a) of Technical Specifications section 3.3.3.7, "Fire Detection Instrumentation," and remained in effect until the zone was returned to service on November 25, 1987.

Fire detection equipment for this zone consists of ionization smoke detectors which actuate a preaction sprinkler system and the Control Room computer alarm. Maintenance investigation into the problem determined that the alarm was caused by signal noise in the Fire System computer loop remote cabinet for this zone and did not affect the operation of the smoke detectors and associated preaction sprinkler system.

ACTION TAKEN

Maintenance installed test equipment on the system and determined that the alarms were being generated from noise in the computer portion (loop remote cabinet) of the circuitry. The smoke detectors and preaction sprinkler system operation were unaffected by the invalid alarm.

Extensive troubleshooting by maintenance personnel isolated and replaced various system subcomponents which were contributing to the noise. The zone was tested after the repairs and shown to be fully operational prior to being returned to service on November 25, 1987. Computer alarms observed since the system was returned to service indicate that the repairs reduced the frequency of the occurrence but did not totally resolve the problem.

The Licensee will continue to monitor and evaluate the performance of the computer system in an attempt to identify the source of the invalid alarms. As previously stated, the noise does not affect the operability of the system as defined in the Technical Specifications.