NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Haddam Neck	0 5 0 0 0 2 1 3	1 OF 0 4

TITLE (4)
Containment Cable Vault Fire Protection System Test

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
										0 5 0 0 0
0 3	2 0	8 5	8 5	0 0 8	0 1	0 5	0 7	8 5		0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	1 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
Gary J. Silberquit	2 0 3 2 6 7 - 2 5 5 6

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	
E	K 0	X X X	S 4 2 0	No							

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

While performing the annual test of the fire protection system for the Containment Cable Vault, the actuation of the CO_2 system did not shut off the Containment Cable Vault Exhaust Fan.

Immediate corrective action taken was to correctly wire the exhaust fan controls to match design documents and then to verify that the fan would operate as required.

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FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
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TEXT *(If more space is required, use additional NRC Form 366A's)* (17)

On March 20, 1985 at 1510 hours, while the plant Operations Department was performing the Containment Cable Vault CO_2 System Flow Test, Valve and Ventilation Test, it was discovered that the actuation of the CO_2 system (KQ) did not shut off the Containment Cable Vault Exhaust Fan (FAN). This is inconsistent with Technical Specification 4.15.B.1.b.

Reportability

This event is reportable because of its deviation from the plant's Technical Specifications (50.73(a)(2)(i)(C)).

Fan Control Description

The schematic drawing for the fan controls shows that both the supply and exhaust fan are controlled by the same circuit breaker (52) and contactor (29). In the event of a CO_2 system actuation, the contactor would trip them both off, as well as close the electro-pneumatically controlled intake damper (UDMP).

In reality, the exhaust fan was wired directly to the line side of the contactor after the circuit breaker thereby voiding any control the contactor may have had over the exhaust fan's operation.

A chronological history of the fan scheme and surveillance is as follows:

1965	System originally designed and installed.
November 3, 1966	Schematic drawings of the fan controls were revised to relocate the fan controls. It is believed that this revision was to correct the control scheme, but this modification was not changed in the field.
March, 1980	Plant Design Change Request 326 modified the CO_2 fire suppression system. The system retest that was performed functionally checked the CO_2 system but did not verify operation of the fan/damper controls because they weren't affected by this modification.
March 20, 1981	Plant Surveillance Procedure SUR 5.5-20 was approved (supporting the new Plant Fire Protection Technical Specifications) to test the cable vault CO_2 system and verify flow, valve, and ventilation/damper operation.

This original procedure required Connecticut Yankee Quality Control (CYQC) to witness and verify the following:

6.16 Verify supply fan F-31-A operating and inlet damper is open.

6.18 Discharge both main bank test cylinders.

6.19 Check supply fan F-31-A OFF and its inlet damper shut.

March 24, 1981 — This test was satisfactorily performed.

May 19, 1981 — Revision 1 was made to SUR 5.5-20 to have CYQC witness and verify the following:

6.16 Verify supply fan F-31-A operating and inlet damper is open, and exhaust fan F-32-A operating.

6.18 Discharge both main bank test cylinders.

6.19 Check supply fan F-31-A OFF and its inlet damper shut, and exhaust fan F-32-A OFF..

January 28, 1982 — Revision 2 made no pertinent changes.

March 24, 1982 — SUR 5.5-20, Rev. 2 was performed and the above steps were signed and witnessed.

June 29, 1982 — Revision 3 made no pertinent changes.

January 11, 1983 — An "As Built Verification Program" failed to discover the inconsistencies described above.

January 17, 1983 — Generation Fire Protection Engineering issued CYAPCO's Fire Hazard Analysis which states for the Containment Cable Vault Protection:

- Intake and exhaust fans shutdown on actuation of the CO_2 system, and
- Automatic fire dampers in the intake and exhaust ducts shutdown on actuation of the CO_2 system.

March 23, 1983 — SUR 5.5-20, Rev. 3 was performed and the above steps were signed and inspected.

March 8, 1984 — SUR 5.5-20, Rev. 3 was performed and the above steps were signed and inspected.

July 6, 1984 — Revision 4 modified the procedure to meet new format requirements. No pertinent changes.

March 20, 1985 — SUR 5.5-20, Rev. 4 was performed and the subject discrepancy was discovered.

Failure Cause

Investigation into the reasons why this procedure could have been performed three times prior to discovering the wiring error reveals that step 6.19 was misinterpreted. The step requires CYQC to verify that the supply and exhaust fans are off and the supply damper closed. However, this was incorrectly read as a step to be performed rather than a condition to be verified. (Accordingly, the fans were deenergized and the damper closed at this step and then checked off and shut respectively.)

It is felt that because of the recent increased emphasis by management on procedural compliance, the wiring error was discovered at this time and not previously.

Corrective Action

The immediate corrective action taken was to correctly wire the fan to be controlled in the manner prescribed. When the test was performed March 20, 1985, the supply fan contactor was verified to operate on CO_2 discharge. After the scheme was wired correctly, a retest of the contactor controlling both F-31-A and F-32-A proved operability of the scheme and, therefore, the satisfactory completion of SUR 5.5-20.

Surveillance Procedure SUR 5.5-20 will be revised prior to next performance of this test to clearly define the method of verifying that the system operated properly.

CONNECTICUT YANKEE ATOMIC POWER COMPANY

HADDAM NECK PLANT

RR#1 • BOX 127E • EAST HAMPTON, CONN. 06424

May 7, 1985

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D. C. 20555

Reference: Facility Operating License No. DPR-61
Docket No. 50-213
Reportable Occurrence 50-213/LER 85-008-01

Gentlemen:

This letter forwards the Licensee Event Report 85-008-01, revised to reflect a corrected typographical error.

Very truly yours,

Richard H. Graves
Station Superintendent

RHG/JDB
Attachment: LER 85-008-01
cc: Dr. T. E. Murley, Region 1

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