

# ABNORMAL OCCURRENCE REPORT

REPORT NUMBER: 50-29/74-2

REPORT DATE: June 19, 1974

OCCURRENCE DATE: June 16, 1974

FACILITY: Yankee Atomic Electric Company, Rowe, Massachusetts

IDENTIFICATION OF OCCURRENCE: Containment Isolation Actuation System  
Setpoint Drift.

CONDITIONS PRIOR TO OCCURRENCE: Refueling Shutdown, Shutdown Cooling System  
Operating, Reactor Coolant Temperature at 100°F.

## DESCRIPTION OF OCCURRENCE

During routine refueling interval surveillance testing of the Containment Trip Valve Isolation System, Procedure OP-4610, VC Trip Valve Test and Pressure Switch Calibration, one of the two identical pressure switches, PS-231, used to trip the system operated at 5.3 psig. Also, during the same test, the containment air particulate monitor sample lines isolation system pressure switch operated at 7.0 psig. This is a violation of Technical Specification Section D.2.e.8 which lists a maximum setpoint of 5.0 psig.

## DESIGNATION OF APPARENT CAUSE OF OCCURRENCE

PS-231 was set too close to the technical specification limit and normal instrumentation drift caused exceeding the limit.

The vapor container air particulate sample lines isolation system pressure switch's out-of-tolerance setpoint was also due to setpoint drift. The magnitude of the out-of-tolerance value (2 psi) is apparently due to the pressure switch having too great a span for its intended use.

## ANALYSIS OF OCCURRENCE

PS-231 is one of two identical pressure switches (the other being PS-230) used to trip the Containment Isolation System. If the containment pressure reaches  $\leq 5$  psig this system automatically closes 27 trip valves in the vapor container outgoing lines used for the operation of the plant.

PS-230 operated at  $< 5$  psig during the above referenced test, and therefore if containment isolation were required because of a LOCA the 27 trip valves would have tripped below the technical specification limit.

The vapor container air particulate monitor has its own system for isolating the two one-inch sampling lines. The two sample lines terminate in a sealed housing containing the air particulate paper drive mechanisms and detector.

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The Reactor Containment Pressure Analysis, YAEF FHSR Section 412 shows that during a LOCA vapor container pressure peaks out at 31.6 psig within 18 seconds. This pressure transient greatly exceeds the out-of-tolerance values of 5.3 and 7.0 psig. It can therefore be concluded that vapor container isolation valves would have all closed during a LOCA and exposure to personnel and radioactive material release would not have taken place because of the out-of-tolerance setpoints thus resulting in no additional risk to public health and safety.

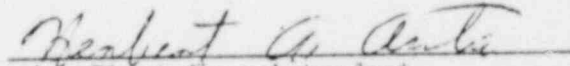
#### CORRECTIVE ACTION

The containment isolation actuation system pressure switch, PS-231, was readjusted to operate at 4.4 psig.

The containment air particulate sample lines isolation pressure switch was also readjusted to <5.0 psig. In the near future it will be replaced with a new pressure switch having a narrower span.

#### FAILURE DATA

N/A

  
Plant Superintendent

POOR ORIGINAL

FROM: Yankee Atomic Electric Company Rowe, Mass. 01367 H. A. Autio		DATE OF DOC 6-19-74		DATE REC'D 6-27-74		LTR X	TWX	RPT	OTHER
TO: J. P. O'Reilly		ORIG 1 signed	CC	OTHER	SENT AEC PDR X SENT LOCAL PDR				
CLASS	UNCLASS YXXX	PROP INFO	INPUT	NO CYS REC'D 1		DOCKET NO: 50-29			

## DESCRIPTION:

Ltr trans the following:

## ENCLOSURES:

AO 50-29/74-2: Reporting abnormal occurrence on 6-16-74, regarding containment isolation actuation system setpoint drift.

ACKNOWLEDGED

DO NOT REMOVE

PLANT NAME: Yankee

(1 cy rec'd)

FOR ACTION/INFORMATION

7-1-74 GC

BUTLER (L)	SCHWENCER (L)	ZIEMANN (L)	REGAN (E)
W/ CYS	W/ CYS	W/ CYS	W/ CYS
CLARK (L)	STOLZ (L)	DICKER (E)	
W/ CYS	W/ CYS	W/ CYS	W/ CYS
	VASSALLO (L)	KNIGHTON (E)	
W/ CYS	W/ CYS	W/ CYS	W/ CYS
KNIEL (L)	✓PURPLE (L)	YOUNGBLOOD (E)	
W/ CYS	W/7 CYS	W/ CYS	W/ CYS

## INTERNAL DISTRIBUTION

✓REG FILE	✓TECH REVIEW	DENTON	LIC ASST	A/T IND
✓AEC PDR	✓HENDRIE	GRIMES	DIGGS (L)	BRAITMAN
✓OGC	✓SCHROEDER	GAMMILL	GEARIN (L)	SALTZMAN
✓MUNTZING/STAFF	✓MACCARY	KASTNER	GOULBOURNE (L)	B. HURT
✓CASE	✓KNIGHT	BALLARD	KREUTZER (E)	
GIAMBUSSO	✓PAWLICKI	SPANGLER	LEE (L)	PLANS
BOYD	✓SHAO		MAIGRET (L)	MCDONALD
MOORE (L)(LWR-2)	✓STELLO	ENVIRO	REED (E)	CHAPMAN
DEYOUNG (L)(LWR-1)	✓HOUSTON	MULLER	SERVICE (L)	DUBE w/input
SKOVHOLT (L)	✓NOVAK	DICKER	SHEPPARD (L)	E. COUPE
✓GOLLER (L)	✓ROSS	KNIGHTON	SLATER (E)	
P. COLLINS	✓IPPOLITO	YOUNGBLOOD	SMITH (L)	✓D. THOMPSON (2)
DENISE	✓TEDESCO	REGAN	✓TEETS (L)	✓KLECKER
✓REG OPR	✓LONG	PROJECT MGR	WILLIAMS (E)	✓EISENHUT
✓FILE & REGION (3)	✓LAINAS		WILSON (L)	
✓MORRIS	✓BENAROYA	HARLESS		
✓STEELE	✓VOLLMER			

## EXTERNAL DISTRIBUTION

1 - LOCAL PDR NONE	(1)(2)(10)-NATIONAL LABS	1-PDR-SAN/LA/NY
✓1 - TIC (ABERNATHY)	1-ASLBP(E/W Bldg, Rm 529)	1-BROOKHAVEN NAT LAB
✓1 - NSIC (BUCHANAN)	1-W. PENNINGTON, Rm E-201 GT	1-G. ULRIKSON, ORNL
1 - ASLB	1-B&M SWINEBROAD, Rm E-201 GT	1-AGMED (RUTH GUSMAN)
1 - P. R. DAVIS	1-CONSULTANTS	Rm B-127 GT
✓16 - ACRS SENT TO LIC ASST	NEWMARK/BLUME/AGBABIAN	1-RD..MULLER, Rm F-1
7-1-74 TEETS		GT