OYSTER CREEK NUCLEAR GENERATING STATION
FORKED RIVER, NEW JERSEY 08731

Abnormal Occurrence
Report No. 50-219/74/28

Report Date

May 1, 1974

Occurrence Date

April 23, 1974

Identification of Occurrence

Violation of the Technical Specifications, paragraph 2.3.4, Electromatic Relie
Valve Pressure Switches, 1A83B and 1A83D, were found to trip at pressures in
excess of the maximum allowable value of 1070 psig. This event is considered
be an abnormal occurrence as defined in the Technical Specifications, paragrap
1.15A.

Conditions Prior to Occurrence

The plant was shut down for refueling.

The reactor mode switch was in the REFUEL position with reactor coolant tempe
approximately 100°F.

Description of Occurrence

On Tuesday, April 23, 1974, while performing surveillance on the five Electro
Relief Valve Pressure Switches, it was found that 1A83B and 1A83D tripped at
psig and 1096 psig, respectively. These values are in excess of the maximum
allowable trip points of 1084 psig and 1082 psig, respectively, which are der
by adding appropriate head correction factors to the Technical Specification
of 1070 psig. Switches 1A83B and 1A83D are associated with valves NR108B and
NR108D, respectively.

The "as found" and "as left" switch settings were:

Switch	Associated Valve	"Desired" Setting	"As Found" Setting	"As Left" Setting
1A83A	NR108A	1079 psig	1079 psig	1079 psig
1A83B	NR108B	1084 psig	1090 psig	1084 psig
1A83C	NR108C	1077 psig	1077 psig	1077 psig
1A83D	NR108D	1082 psig	1096 psig	1082 psig
1A83E	NR108E	1082 psig	1082 psig	1082 psig

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Apparent Cause of Occurrence

Set point repeatability has been tentatively identified as the cause of this occurrence.

Analysis of Occurrence

The relief valves are provided to remove sufficient energy from the primary system to prevent the safety valves from lifting during a transient. The limiting pressure transient is that which is produced upon a turbine trip from rated design power with a failure of the bypass system to function. Under these conditions, the five (5) relief valves are required to operate in order to prevent the pressure excursion from reaching the lowest set point of the primary system safety valves. It should be noted that a 25 psi margin exists between the resulting peak pressure and the lowest safety valve set point as added assurance that the safety valves will not lift during this transient. With valves NR108B and NR108D actuating at 6 psig and 14 psig, respectively, above the maximum allowable trip point of 1070 psig, and assuming the most limiting pressure transient had occurred, the lowest set point safety valve or valves may have been required to actuate in order to limit the pressure transient. Since the safety valve capacity is based upon providing sufficient vessel over-pressure protection upon failure of all pressure relieving devices, in addition to a failure of the reactor to scram, over-pressurization of the vessel would not have occurred.

Corrective Action

The involved pressure switches, 1A83B and 1A83D, were immediately reset to trip at allowable pressure levels. Until the problem of set point repeatability is solved, the Electromatic Relief Valve Pressure Switches will be surveilled each time the reactor is shut down and the reactor coolant temperature is reduced to <212°F.

Discussions with the Nuclear Steam Supply System vendor into the possibility of employing set points with instrument accuracy deviations taken into account for Technical Specification surveillances will continue. The successful termination of these discussions lies in the ability of the vendor to supply transient analysis information and to determine precisely the conservatisms utilized in those analyses that are relevant to the instrument set point analysis.

Failure Data

This is the first abnormal occurrence report of the failure of these switches to trip at their preset trip point.

Manufacturer data pertinent to these switches are as follows:

Manufacturer:	Dresser
Type:	1539VX
Serial Nos.:	BK3339 (1A83B)
	BK3338 (1A83D)