

**AEC DISTRIBUTION FOR PART 50 DOCKET MATERIAL**  
(TEMPORARY FORM)

CONTROL NO: 5628

FILE:

<b>FROM:</b> Metropolitan Edison Company Reading, Pennsylvania 19603 J. G. Miller			<b>DATE OF DOC</b> 7-19-73		<b>DATE REC'D</b> 7-23-73		<b>LTR</b> x	<b>MEMO</b>	<b>RPT</b>	<b>OTHER</b>	
<b>TO:</b> A. Schwencer			<b>ORIG</b> 1 signed		<b>CC</b> 39	<b>OTHER</b>		SENT AEC PDR X SENT LOCAL PDR X			
<b>CLASS</b>	<b>UNCLASS</b> XXX	<b>PROP INFO</b>	<b>INPUT</b>		<b>NO CYS REC'D</b> 40		<b>DOCKET NO:</b> 50-289				
<b>DESCRIPTION:</b> Ltr re their 5-21-73 ltr..re..control circuits of all related safety equipment....furnishing revised Section entitled "Nuclear Service Closed Cooling Water Pumps NS-P-1A,1B & 1C..						<b>ENCLOSURES:</b>  <b>ACKNOWLEDGED</b>  <b>DO NOT REMOVE</b>					
<b>PLANT NAME:</b> Three Mile Island Unit # 1											

FOR ACTION/INFORMATION 7-23-73 fod

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Regulatory File Cy.

July 19, 1973

Mr. A. Schwencer, Chief  
Pressurized Water Reactors  
Branch No. 4  
Directorate of Licensing  
U.S. Atomic Energy Commission  
Washington, DC 20545

SUBJECT: THREE MILE ISLAND NUCLEAR STATION  
UNIT 1  
DOCKET NO. 50-289

Dear Mr. Schwencer:

On May 21, 1973 Met-Ed responded to your letter of March 7, 1973 which requested that a design review of the control circuits of all safety related equipment be performed.

In our response concerning the Nuclear Service Closed Cooling Water Pumps we made several incorrect statements. I am enclosing 40 copies of a revised section entitled "Nuclear Service Closed Cooling Water Pumps NS-P-1A, 1B and 1C".

Very truly yours,

*J. G. Miller*  
J. G. Miller  
Vice President

asb

Enclosures



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NUCLEAR SERVICE CLOSED COOLING WATER PUMPS NS-P-1A, 1B, 1C

Elementary Diagrams: SS-208-350, 351, 352, 353, 354, 359

NS-P-1A may be started if: 1) its control switch CS3, tag #CS/NS-P-1A is turned to the start position. This action provides a direct start, or 2) the control switch CS3 is in standby, pump "C" is manually stopped (CS3/1C & 52/1C0, the auto-start lockout is not energized (27/86A) and pump "B" fails, or, 3) the control switch CS3 is standby, pump "C" is started (CS3/1C & 52/1C), the auto-start lockout is not energized (27/86A), and pump "B" fails, or 4) with the pump selector switch 43SS/P in the "pump A" position and the E. S. Diesel Sequence #3 signal present.

The pump breaker is equipped with a position switch (device 33), a contact of which is in parallel with the breaker "B" auxiliary switch, (draw-out), so that when the breaker is withdrawn from its operating position, (not fully inserted in its cubicle), the position switch closes, maintaining positive continuity of the interlock circuit independent of breaker position.

Thus, NS-P-1A may be started manually, or by E. S. Sequence #3, or automatically when NS-P-1B fails under conditions calling for use of one pump (B) (regardless of the position of the NS-P-1C breaker) or under conditions calling for use of two pumps (B & C) and pump B fails.

NS-P-1B may be started by: 1) moving the control switch CS3, tag #CS/NS-P-1B-P, to the start position and if its circuit breaker on bus 1S is not closed (52aX3), or 2) the control switch CS3 is in standby and pump "A" failed (62/1A), the auto-start lockout is not energized (27/86A), and if pump B-1S breaker is not closed (52aX3), or 3) CS3 in standby position, pump "C" failed (62/1C), pump "A" not in auto-start (RX), pump B-1S breaker is not closed, (52aX3), and the auto-start lockout is not energized (27/86), or 4) pump is selected for operation from bus 1P (43 SS/P), E.S. Diesel Sequence #3 signal present, circuit breaker on bus 1S is not closed.

NS-P-1B may be operated from either bus 1S or 1P. Operation from bus 1S is similar in detail to the above.

NS-P-1B is equipped with a breaker position contact, (device no. 33), in parallel with the breaker auxiliary switch, (drawout), so that when the breaker is withdrawn from the operating position, (not fully inserted in its cubicle), the position switch is closed maintaining positive continuity of the circuit.

Thus the pump "B" failed relays 62/NS-P1B-P or 62/NS-P1B-S which automatically start pumps "A" and "C" will operate regardless of the position of their respective breakers.

The operation of pump NS-P-1C is similar to detail in NS-P-1A.