



COMMONWEALTH
EDISON
COMPANY

General Offices: 212 West Michigan Avenue, Jackson, Michigan 49201 • Area Code 517 788-0550

March 18, 1974

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Mr. John P. O'Leary, Director
Directorate of Licensing
US Atomic Energy Commission
Washington, DC 20545



Re: Docket No 50-155
License No DPR-6
Big Rock Point

Dear Mr. O'Leary:

This will apprise you of an abnormal occurrence (AO 2-74) in which the diesel generator at the Big Rock Point Plant failed to start on March 7, 1974. The DRO Region III Division was notified by telephone and TWX on March 8 and 11, 1974, respectively.

Following replacement of the transformer on the emergency diesel generator local voltmeter (output) circuit, the diesel failed to start on a test attempt prior to returning the unit to service. The starting mode switch was placed in the "test" position and the cranking motor cycled only three times with the engine failing to start. (Normal cranking cycle is approximately six cranks.) On a second attempt with the mode switch placed in the "test" position, the engine did not crank at all. The mode switch was then placed in the "manual" start position and the diesel generator was started successfully. Two additional starts were then attempted with the mode switch placed in the "test" position and the diesel started successfully on both attempts. The unit was then returned to service operation following the last successful start. The elapsed time between the first unsuccessful attempt to start and the first successful start consisted of approximately 11 minutes (a correction of the 12-minute interval reported in the March 11, 1974 TWX).

The reactor was at a steady-state power operation of 50 MWe (net) at this time.

There was no previous history of cranking control failure of this nature.

On March 8, 1974, an inspection of the control circuit components revealed pitting on one of two parallel sets of contacts on the MSX relay. It was cleaned and the unit tested satisfactorily.

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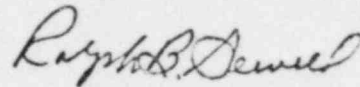
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The failure of the diesel generator to start was attributed to either an intermittent component failure in the cranking circuit, improper sequencing associated with the starting mode switch or pitting of the contacts on the MSX relay.

A test was conducted on March 14, 1974, to simulate interruption of the cranking cycle with subsequent start failure on the first attempt. However, the unit started satisfactorily and the test did not explain the cause of the failure unless it had been due to the pitted contacts. In an effort to prevent similar future failures, an inspection of the starting control components will be included in the annual preventive maintenance program.

A redundant emergency power supply was provided by plant modifications during the 1960s. This power supply is a separate tie to Michigan Power Pool electrical grid. As the Big Rock Point Plant capacity is small compared to the Power Pool electrical capacity (less than 1% of the Power Pool capacity), the loss of output of the Big Rock Point Plant would not cause a loss of the grid.

Yours very truly,



WGF/map

Ralph B. Sewell
Nuclear Licensing Administrator

CC: JCKeppler, USAEC

ABNORMAL OCCURRENCE REPORT

CONTROL BLOCK: 000892

FACILITY: BPP 1 CATEGORY: REPORT TYPE: T SOURCE: L DOCKET #: 05D-0155 EVENT DATE: 03.03.74 REPORT DATE: 03.18.74
 01 7 8 9 56 57 58 59 60 61 68 69 74 75 80
 02 7 8 9 DESCRIPTION OF EVENT:
 03 7 8 9 DURING TEST FOLLOWING MAINTENANCE, DIESEL GENERATOR FAILED
 04 7 8 9 TO START. CRANKING MOTOR MALFUNCTIONED DUE TO PITTING ON
 05 7 8 9 ONE OF TWO PARALLEL SETS OF CONTACTS ON MSX RELAY. CLEANED MSX
 06 7 8 9 RELAY AND UNIT TESTED SATISFACTORILY. REDUNDANT POWER
 07 7 8 9 SOURCE WAS AVAILABLE. (AO-2-74)

SYSTEM NO.: 15 PROXIMATE CAUSE CODE: E
 07 7 8 9 10 11 12 13
 08 7 8 9 DESCRIPTION OF CAUSE:
 09 7 8 9 PITTING OF CONTACTS ON MSX RELAY. ALSO SUSPECT POSSIBLE
 10 7 8 9 INTERMITTENT COMPONENT FAILURE IN CRANKING CIRCUIT OR STARTING
 11 7 8 9 MODE SWITCH PROBLEM.

STATUS OF REACTOR CODE: A-CONSTRUCTION B-PREOPERATIONAL, INITIAL STARTUP AND POWER ASCENSION TESTS C-ROUTINE STARTUP OPERATION D-ROUTINE SHUTTING DOWN OPERATION E-STEADY STATE OPERATION AT _____% POWER
 F-LOAD CHANGES DURING ROUTINE POWER OPERATION G-SHUTDOWN (HOT OR COLD, EXCEPT REFUELLING) H-REFUELLING I-OTHER, INCLUDING SPECIAL TESTS (DESCRIBE)
 METHOD OF DISCOVERY (DESC.): A-OPERATIONAL EVENT B-ROUTINE TEST/INSPEC C-SPECIAL TEST/INSPEC D-EXTERNAL SOURCE

STATUS: E % POWER: 0.62 OTHER STATUS: B DISC.: B DESCRIPTION:
 11 7 8 9 10 11 12 13 44 45
 12 7 8 9 FORM OF ACTIVITY RELEASED: L: LIQUID S: SOLID G: GAS CONTENT OF RELEASE: N: NOBLE GAS H: HALOGEN P: PARTICULATE AMOUNT OF ACTIVITY: LOCATION OF RELEASE:

PERSONNEL EXPOSURES:
 NUMBER: DESCRIPTION:
 13 7 8 9 11 12
 PERSONNEL INJURIES:
 NUMBER: DESCRIPTION:
 14 7 8 9 11 12
 OFFSITE CONSEQUENCES:
 15 7 8 9
 DAMAGE TO FACILITY:
 16 7 8 9
 PUBLICITY:
 17 7 8 9
 ADDITIONAL FACTORS:
 18 7 8 9
 19 7 8 9

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