

LICENSEE EVENT REPORT

CONTROL BLOCK: (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

01 | F | I | T | P | S | 3 | 2 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | 0 | 0 | 3 | 4 | 1 | 1 | 1 | 1 | 4 | 1 | 5

01 | REPORT SOURCE | L | 6 | 0 | 5 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 5 | 1 | 0 | 7 | 1 | 1 | 2 | 3 | 1 | 1 | 7 | 8 | 3 | 0 | 1 | 3 | 0 | 1 | 7 | 9 | 3

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 | While performing a routine surveillance test, the "A" AFW pump was found
03 | to have a seized shaft. The 2 remaining pumps were operable and available
04 | for use. T.S. 3.8.1.b.2 requires 3 operable pumps during dual unit opera-
05 | tion, however, it was permissible to continue operation of both units for
06 | up to 48 hours under T.S. 3.8.3. Within that time period, Unit 3 was
07 | shutdown for a scheduled refueling outage, at which time T.S. 3.8.1.b.2
08 | no longer applied.

09 | SYSTEM CODE | H | H | 11 | CAUSE CODE | E | 12 | CAUSE SUBCODE | Z | 13 | COMPONENT CODE | P | U | M | P | I | X | X | 14 | COMP. SUBCODE | B | 15 | VALVE SUBCODE | Z | 16 |

17 | LER/NO REPORT NUMBER | 7 | 8 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 |

18 | X | 19 | A | 20 | Z | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 |

10 | The root cause could not be determined, however, observations indicated
11 | that the pump had overheated. Possible causes of the overheating involved
12 | leakage of steam or feedwater past system valves. The pump will be
13 | repaired, and an existing program for repair or replacement of defective
14 | AFW valves will be expedited.

15 | FACILITY STATUS | 2 | 23 | 1 | 1 | 0 | 0 | 29 | OTHER STATUS | NA | 30 | METHOD OF DISCOVERY | B | 31 | DISCOVERY DESCRIPTION | Operator Observation | 32 |

16 | ACTIVITY CONTENT RELEASED OF RELEASE | 2 | 33 | 2 | 34 | 35 | AMOUNT OF ACTIVITY | NA | 36 | LOCATION OF RELEASE | 37 |

17 | PERSONNEL EXPOSURES NUMBER | 0 | 37 | 0 | 38 | 0 | 39 | TYPE | 2 | 40 | DESCRIPTION | NA | 41 |

18 | PERSONNEL INJURIES NUMBER | 0 | 42 | 0 | 43 | 0 | 44 | TYPE | 2 | 45 | DESCRIPTION | NA | 46 |

19 | LOSS OF OR DAMAGE TO FACILITY TYPE | 2 | 47 | 2 | 48 | 2 | 49 | DESCRIPTION | NA | 50 |

20 | PUBLICITY ISSUED DESCRIPTION | NA | 51 |

21 | NAME OF PREPARER | M. A. Schoppman | 52 | PHONE | 305/552-3802 | 53 |

22 | NRC USE ONLY | 54 | 55 | 56 | 57 | 58 | 59 | 60 |

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Additional Event Description

Three Auxiliary Feedwater (AFW) pumps are shared by Turkey Point Units 3 and 4. T.S. 3.8.1.b.2 requires that all three AFW pumps be operable during dual unit operation. While performing a routine Unit 3 surveillance test, the "A" AFW pump was found to have a seized shaft. Two days before the Unit 3 test of the "A" AFW pump, a similar Unit 4 test had been performed satisfactorily.

The "B" and "C" AFW pumps were operable and available for use. Since any single AFW pump is capable of supplying the total feedwater requirement of either unit, the occurrence had no adverse effect on public health and safety. Both units continued to operate under the provisions of T.S. 3.8.3. During the 48 hour period permitted by T.S. 3.8.3, Unit 3 entered a scheduled refueling outage, at which time T.S. 3.8.1.b.2 no longer applied.

Additional Cause Description

The "A" AFW pump was dismantled and the rotor was removed. The casing wear rings were seized to the impellers and cracks were observed on the diffuser blades. These observations indicated that the pump had overheated.

The root cause of the overheating could not be determined, however, possible causes are:

- 1) Due to steam leakage to the "A" AFW pump turbine, the pump shaft was rotating at a reduced RPM whenever the "B" or "C" AFW pump was being tested. The discharge pressure of the pump being tested could have caused the "A" AFW pump to be "deadheaded" and run without delivering flow.
- 2) Backleakage of hot feedwater from the steam generators to the "A" AFW pump may have led to vapor formation, in which case the pump could have been vapor bound when operated.

Pump Data

Ingersoll-Rand Co.
Type: CNTAM