

# LICENSEE EVENT REPORT

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

CONTROL BLOCK \_\_\_\_\_ ①

② P A T M I 1 2 0 0 - 0 0 0 0 0 0 - 0 0 0 3 4 1 1 1 1 1 4 \_\_\_\_\_ ⑤

LICENSEE CODE 14 15 LICENSE NUMBER 25 26 LICENSE TYPE 30 57 CAT 58

⑥ L 6 0 5 0 0 0 2 8 9 7 1 2 0 4 7 8 8 1 2 1 5 7 8 ⑨

REPORT SOURCE 60 61 DOCKET NUMBER 66 69 EVENT DATE 74 75 REPORT DATE 80

### EVENT DESCRIPTION AND PROBABLE CONSEQUENCES ⑩

⑫ During normal station operation, ambient environmental conditions caused the sta-

⑬ tion river water discharge delta temperature limit of 12 degrees (F) to be exceeded

⑭ by 2 degrees (F) for 2.5 hours thereby violating TMI-1 (TS 2.1.b.1) and TMI-2 (ETS

⑮ 3.1.1.a(1)). This event posed no threat to the health and safety of the public.

⑯ Previous events of a similar nature were 77-20, 77-05, 77-02, 76-28, 76-09, 78-08,

⑰ 77-07, 74-08, 74-01.

⑧ 9

SYSTEM CODE ⑪ Z Z 11 CAUSE CODE ⑫ C 12 CAUSE SUBCODE ⑬ Z 13 COMPONENT CODE ⑭ Z Z Z Z Z Z 14

COMP SUBCODE ⑮ Z 15 VALVE SUBCODE ⑯ Z 16

⑰ LER-RO REPORT NUMBER 17 7 8 21 22

EVENT YEAR 21 22

SEQUENTIAL REPORT NO. ⑲ 0 3 1 24 26

OCCURRENCE CODE ⑳ 0 4 28 29

REPORT TYPE ⑳ T 30 31

REVISION NO. ⑳ 0 32

ACTION TAKEN ⑲ X 18 ⑳ Z 19 33 34

FUTURE ACTION ⑲ Z 19 33 34

EFFECT ON PLANT ⑳ Z 20 35

SHUTDOWN METHOD ⑲ Z 21 36

HOURS ⑳ 0 0 0 37 40

ATTACHMENT SUBMITTED ⑲ Y 23 41

NPRD-4 FORM SUB ⑲ N 24 42

PRIME COMP. SUPPLIER ⑲ Z 25 43

COMPONENT MANUFACTURER ⑲ Z Z Z Z 26 44 47

### CAUSE DESCRIPTION AND CORRECTIVE ACTIONS ⑳

⑲ This event was caused by high relative humidity and ambient air temperature in

⑳ combination with low ambient river temperature which caused a heating, rather than

㉑ cooling, of the station river discharge by the mechanical draft cooling towers (MDCT)

㉒ To minimize this effect, the MDCT's were shut down.

⑳ FACILITY STATUS ㉑ 5 28 1 0 0 29 NA 30 OTHER STATUS 44

METHOD OF DISCOVERY ㉑ A 31 Operator Observation 45 46

DISCOVERY DESCRIPTION ㉑ 45 46

⑳ ACTIVITY RELEASED OF RELEASE ㉑ 7 13 7 14 NA 35 AMOUNT OF ACTIVITY 44

LOCATION OF RELEASE ㉑ NA 45

⑳ PERSONNEL EXPOSURES ㉑ 0 0 0 37 2 38 NA 39 DESCRIPTION 11 12 13

⑳ PERSONNEL INJURIES ㉑ 0 0 0 40 NA 41 DESCRIPTION 11 12 13

⑳ LOSS OF OR DAMAGE TO FACILITY ㉑ 2 42 NA 43 DESCRIPTION 11 12 13

781226 0194

⑳ PUBLICITY ㉑ Y 44 Weekly News Release 45

⑳ ISSUE DESCRIPTION ㉑ 45

NRC USE ONLY 68 69

NARRATIVE TO LER 78-31/4T

During normal station operation on December 4, 1978, a combination of environmental conditions, specifically ambient air temperature of 61 degrees (F), near 100% relative humidity and 42 degrees (F) river water temperature caused the Mechanical Draft Cooling Towers (MDCT) to warm rather than cool the station discharge.

A review of the circumstances surrounding this event indicate that the unusual environmental conditions as stated, caused the 12 degree delta temperature ( $\Delta T$ ), limit to be exceeded. In addition, to minimize the impact of this event, the MDCT's were temporarily shut down.

The Pennsylvania Department of Environmental Resources (PaDER), under Pennsylvania Code Title 25.97.82, has established thermal pollution limitations to prevent injury to the public health or to animal or aquatic life in waters of the Commonwealth. The heat content of discharges shall be limited to an amount which could not raise the temperature of the entire stream (assuming complete mixing) at the point of discharge 5 degrees (F) above the ambient river temperature. Data submitted to and accepted by the PaDER in June of 1977 demonstrates that when using a conservative 1/6 the river width for TMI's mixing zone (as opposed to the entire river as stated in 25 Pa. 97.82), a discharge flow rate of 60 MGD (as did occur on 12-4-78) could exhibit a  $\Delta T$  of up to 26.58 degrees (F) before exceeding the allowable 5 degrees (F) rise in river temperature under 25 Pa. 97.82.

Based upon the preceding information and the fact that in this instance the  $\Delta T$  did not rise above 26.58 degrees (F), we conclude that there was not a significant adverse environmental impact nor threat to the safety and health of the public.