

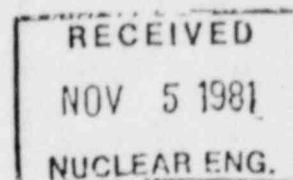
October 30, 1981

TOLEDO
EDISON

Log No. K81-37

FILE: RR 2 (NP-32-81-06)

Docket No. 50-346
License No. NPF-3



Mr. James G. Keppler
Regional Director, Region III
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

Reportable Occurrence 81-060
Davis-Besse Nuclear Power Station Unit 1
Date of Occurrence: October 16, 1981

Enclosed are three copies of Licensee Event Report 81-060 with supplemental information sheets which are being submitted in accordance with Technical Specification 6.9 to provide 14 day written notification of the subject occurrence.

Yours truly,

Terry D Murray

Terry D. Murray
Station Superintendent
Davis-Besse Nuclear Power Station

TDM/ljk

Enclosure

cc: Mr. Victor Stello, Jr., Director
Office of Inspection and Enforcement
Encl: 40 copies

Mr. Norman Haller, Director
Office of Management and Program Analysis
Encl: 3 copies
2 copies telecopy

Mr. Luis Reyes
NRC Resident Inspector
Encl: 1 copy

bcc: J. R. Dyer
J. Hirsch
J. W. Fay
R. E. Lapp
W. E. Nyer
C. M. Rice
D. A. Huffman
D. A. Lee
CNRB Members
Training Department
Shift Technical Advisors
Institute of Nuclear Power Ops
S. Jain

AND NOT DESIGNATED

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LICENSEE EVENT REPORT

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

CONTROL BLOCK: 1										(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)									
<div style="display: flex; justify-content: space-between;"> 0 1 0 H D B S 1 2 0 0 - 0 0 0 0 - 0 0 3 4 1 1 1 1 4 5 </div>										<div style="display: flex; justify-content: space-between;"> 8 9 14 15 25 26 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 </div>									
<div style="display: flex; justify-content: space-between;"> 0 1 L 6 0 5 0 0 0 3 4 6 7 1 0 1 6 8 1 8 1 0 3 0 8 1 9 </div>										<div style="display: flex; justify-content: space-between;"> 8 9 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 </div>									
EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)																			
(NP-32-81-06) On 10/16/81 an evaluation of the calibration method and the actual test																			
data on calibrating the hot leg temperature input to the Reactor Protection System																			
(RPS) revealed that the pressure/temperature trip setpoints on Channels 2 and 4, when																			
combined with the maximum postulated inaccuracies, were less conservative than the																			
accident analysis value used to determine the trip setpoint in Table 2.2-1 of Techni-																			
cal Specification 2.2.1. There was no danger to the health and safety of the public																			
or to station personnel.																			
<div style="display: flex; justify-content: space-between;"> <div> SYSTEM CODE: I A (11) CAUSE CODE: D (12) CAUSE SUBCODE: Z (13) COMPONENT CODE: X X X X X X X X (14) COMP. SUBCODE: X (15) VALVE SUBCODE: Z (16) </div> <div> LER NO. REPORT NUMBER: 8 1 (17) EVENT YEAR: 8 1 (21) SEQUENTIAL REPORT NO.: 0 6 0 (24) OCCURRENCE CODE: 0 1 (28) REPORT TYPE: T (30) REVISION NO.: 0 (32) </div> <div> ACTION TAKEN: E (18) FUTURE ACTION: G (19) EFFECT ON PLANT: Z (20) SHUTDOWN METHOD: Z (21) HOURS: 0 0 0 0 (22) ATTACHMENT SUBMITTED: Y (23) NRPD-4 FORM SUB.: N (24) PRIME COMP. SUPPLIER: Z (25) COMPONENT MANUFACTURER: Z 9 9 9 (26) </div> </div>																			
CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)																			
The cause of this occurrence is attributable to procedural deficiency in that the tol-																			
erances listed as acceptable in the procedure when combined with the instrument string																			
inaccuracies resulted in unacceptable overall inaccuracies. As a precautionary																			
measure, FCR 81-266 was implemented on 10/14/81 to reset the bistables. The procedure																			
and/or setpoint will be revised prior to the next performance of the procedure.																			
<div style="display: flex; justify-content: space-between;"> <div> FACILITY STATUS: E (28) % POWER: 0 9 9 (29) OTHER STATUS: NA (30) </div> <div> METHOD OF DISCOVERY: C (31) DISCOVERY DESCRIPTION: Engineering Analysis (32) </div> </div>																			
<div style="display: flex; justify-content: space-between;"> <div> ACTIVITY RELEASED: Z (33) CONTENT OF RELEASE: Z (34) AMOUNT OF ACTIVITY: NA (35) </div> <div> LOCATION OF RELEASE: NA (36) </div> </div>																			
<div style="display: flex; justify-content: space-between;"> <div> PERSONNEL EXPOSURES: 0 0 0 (37) TYPE: Z (38) DESCRIPTION: NA (39) </div> </div>																			
<div style="display: flex; justify-content: space-between;"> <div> PERSONNEL INJURIES: 0 0 0 (40) DESCRIPTION: NA (41) </div> </div>																			
<div style="display: flex; justify-content: space-between;"> <div> LOSS OF OR DAMAGE TO FACILITY: Z (42) TYPE: NA (43) </div> </div>																			
<div style="display: flex; justify-content: space-between;"> <div> PUBLICITY: N (44) DESCRIPTION: NA (45) </div> </div>																			
<div style="display: flex; justify-content: space-between;"> <div> ISSUED: N (46) DESCRIPTION: NA (47) </div> </div>																			
<div style="display: flex; justify-content: space-between;"> <div> NAME OF PREPARED: Sushil Jain </div> <div> PHONE: (419) 259-5306 </div> </div>																			

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NRC USE ONLY

GPO 917-928

TOLEDO EDISON COMPANY
DAVIS-BESSE NUCLEAR POWER STATION UNIT ONE
SUPPLEMENTAL INFORMATION FOR LER NP-32-81-06

DATE OF EVENT: October 16, 1981

FACILITY: Davis-Besse Unit 1

IDENTIFICATION OF OCCURRENCE: Two channels of Reactor Protection System (RPS) pressure/temperature trip strings less conservative than Technical Specification values when combined with maximum postulated instrument and calibration inaccuracies

Conditions Prior to Occurrence: The unit was in Mode 1 with Power (MWT) = 2772 and Load (Gross MWE) = 926.

Description of Occurrence: On October 16, 1981, an engineering evaluation of the method of calibration used in Surveillance Test ST 5030.06, "Reactor Coolant System (RCS) Temperature Input to RPS Refueling Period Calibration" and results of actual test data from the April 1981 calibration was made. This temperature input is used for the high temperature and pressure/temperature trips of the RPS. The evaluation revealed that the maximum postulated string error for the test performed in April 1981 is 1.63°F. This exceeds the 1.24°F used in calculation of the actual RPS pressure/temperature trip setpoint in the field. Based on the calibration data from April 1981, the evaluation further revealed that although the actual high temperature trip setpoints in the field were conservative on all four RPS channels, the pressure/temperature input strings on Channels 2 and 4, when combined with maximum postulated inaccuracies, were less conservative than the accident analysis value used to determine the trip setpoint in Table 2.2-1 (functional unit 6) of the Technical Specifications.

Designation of Apparent Cause of Occurrence: The cause of this occurrence is attributable to procedural deficiency in that the tolerances listed as acceptable in the procedure when combined with the instrument string inaccuracies resulted in unacceptable overall inaccuracies.

Analysis of Occurrence: There was no danger to the health and safety of the public or to station personnel. The actual pressure/temperature trip setpoint in RPS Channels 2 and 4 was less conservative only by 5.17 psig (0.41°F). The NSSS vendor has indicated that this non-conservatism has an impact of reducing the minimum design DNBR from 1.43 to approximately 1.416. The vendor has also stated that the pressure/temperature trip includes an inherent 15 psig margin of conservatism which more than offsets the effect of 5.17 psig non-conservatism. Furthermore, the RPS pressure/temperature trip is not used as a controlling trip for any of the accidents analyzed in Chapter 15 of the FSAR.

Corrective Action: As a precautionary measure, Facility Change Request 81-266 was written and implemented on October 14, 1981 to reset the pressure/temperature bistables to ensure tripping within the acceptable design DNBR limit. Nuclear Engineering Department is developing a set of guidelines to revise Surveillance Test ST 5030.06 to reduce the overall inaccuracies in the calibration procedure and/or to increase the margin between the actual setpoint in the field and the accident analysis value. The procedure and/or the setpoint will be revised prior to the next performance of this test.

Failure Data: No previous occurrences of this type have been experienced.

LER #81-060