

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

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 RECIP. NAME: REGION 2, Atlanta, Office of the Director

SUBJECT: LER 81-001/01T-0: on 810109 found defeated power range channel N41 & RPI inputs to turbine runback w/auto rod withdrawal sys out of svc is contrary to FSAR & Fuel reload safety analysis.

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EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10) On January 9, 1981, with the unit at 100% power, it was determined that operation of the Unit on January 7, 1981 with the RPI System input to the turbine runback and auto rod withdrawal defeated and power range channel N41 input out of service is contrary to the assumptions in the safety analysis prepared during the fuel reload safety evaluation. Still the probability of not sensing a dropped rod is small since three of the power range detectors were operable. This occurrence is reportable pursuant to Technical Specifications 6.9.2.a(6). No adverse consequences resulted from the above condition.

09 | SYSTEM CODE I | E | 11 | CAUSE CODE D | 12 | CAUSE SUBCODE Z | 13 | COMPONENT CODE I | N | S | T | R | U | 14 | COMP. SUBCODE E | 15 | VALVE SUBCODE Z | 16 | LER/RO REPORT NUMBER 17 | 8 | 1 | 21 | 22 | SEQUENTIAL REPORT NO. 0 | 0 | 1 | 24 | 26 | OCCURRENCE CODE 1 | 1 | 28 | 29 | REPORT TYPE T | 30 | REVISION NO. 0 | 32 | ACTION TAKEN G | 18 | G | 19 | EFFECT ON PLANT Z | 20 | SHUTDOWN METHOD Z | 21 | HOURS 0 | 0 | 0 | 0 | 22 | ATTACHMENT SUBMITTED Y | 23 | NPRD-4 FORM SUB. N | 24 | PRIME COMP. SUPPLIER N | 25 | COMPONENT MANUFACTURER W | 1 | 2 | 0 | 26 |

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27) A review of the H. B. Robinson Unit 2 FSAR and fuel reload safety evaluation identified that the rod drop analysis assumes that turbine runback occurs and that auto rod withdrawal is defeated. No procedures existed to prevent bypassing both simultaneously. The RPI input was immediately reinstalled, and detector N41 was put back in service. Procedures are being developed to prohibit having both the RPI Bottom Indication System and one power range detector out of service simultaneously until final resolution of the issue.

15 | FACILITY STATUS E | 28 | % POWER 1 | 0 | 0 | 29 | OTHER STATUS NA | 30 | METHOD OF DISCOVERY D | 31 | DISCOVERY DESCRIPTION Observation | 32 | 16 | ACTIVITY RELEASED Z | 33 | CONTENT Z | 34 | AMOUNT OF ACTIVITY NA | 35 | LOCATION OF RELEASE NA | 36 | 17 | PERSONNEL EXPOSURES NUMBER 0 | 0 | 0 | 37 | TYPE Z | 38 | DESCRIPTION NA | 39 | 18 | PERSONNEL INJURIES NUMBER 0 | 0 | 0 | 40 | DESCRIPTION NA | 41 | 19 | LOSS OF OR DAMAGE TO FACILITY TYPE Z | 42 | DESCRIPTION NA | 43 |

20 | PUBLICITY ISSUED N | 44 | DESCRIPTION NA | 45 | NRC USE ONLY 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | NAME OF PREPARER R. B. Starkey, Jr. PHONE: (803) 383-4524

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SUPPLEMENTAL INFORMATION

FOR

LICENSEE EVENT REPORT 80-001

1. Cause Description and Analysis: On January 7, 1981, the Power Range Channel N41 was taken out of service. Previous to this, the Rod Position Indication System (RPI) input to the turbine runback system and auto rod withdrawal circuit had been defeated due to spurious rod drop indications in an effort to prevent unnecessary thermal cycles to Reactor Coolant System (RCS) components. On January 9, 1981, it was determined, by a review of the H. B. Robinson Unit 2 FSAR and fuel reload safety evaluation, that both of these documents assume that turbine runback and auto rod withdrawal defeat occur following a control rod drop. These systems are actuated by any one RPI bottom signal or a rapid flux decrease on any one Power Range Channel. By having N41 inoperable, a few rods located in the core region nearest N41 might not be detected by the other three power range detectors if they were to drop. Based on this review, therefore, the event was identified as reportable pursuant to Technical Specification 6.9.2.a.6.

Since an RCCA drop event did not occur during this time, no adverse consequences resulted from the above situation.

2. Corrective Action: All affected systems were immediately returned to service when it was determined that having both inputs to the turbine runback and auto rod withdrawal systems defeated may be contrary to the FSAR and fuel reload safety analysis.
3. Corrective Action to Prevent Recurrence: A review of this issue is continuing with both Westinghouse (NSSS) and Exxon (fuel supplier). Discussions with utilities with plants of the same type and vintage as Robinson 2 indicate strongly that the runback feature is not needed to insure core limits are satisfied following a rod drop. Preliminary discussions with Exxon re-enforces this indication. Therefore, although the current FSAR addresses this feature, it is believed that analyses will clearly demonstrate that the runback is not required.

Until this issue is completely resolved, administrative controls will be implemented to ensure that both runback initiating circuits are not defeated at power levels greater than 70%. These controls will be implemented by January 31, 1981.

At this time, a schedule for final resolution of this issue is not available. However, following final resolution, a supplemental report to the LER will be issued.