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United States Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261/LICENSE NO. DPR-23

LICENSEE EVENT REPORT NO. 2003-001-00
FAILURE TO COMPLETE TECHNICAL SPECIFICATIONS
REQUIRED ACTION WITHIN THE ALLOWED COMPLETION TIME

Ladies and Gentlemen:

The attached Licensee Event Report is submitted in accordance with the requirements of 10 CFR 50.73. Should you have any questions regarding this matter, please contact Mr. C. T. Baucom.

Sincerely,

A handwritten signature in black ink that reads 'Timothy P. Cleary for'.

Timothy P. Cleary
Plant General Manager

CAC/cac

Attachment

c: Mr. L. A. Reyes, NRC, Region II
Mr. C. P. Patel, NRC, NRR
NRC Resident Inspector, HBRSEP

Handwritten initials 'JER2' in black ink, located in the bottom right corner of the page.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

FACILITY NAME (1) H. B. Robinson Steam Electric Plant, Unit No. 2	DOCKET NUMBER (2) 05000261	PAGE (3) 1 OF 6
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TITLE (4)
Failure to Complete Technical Specifications Required Action within the Allowed Completion Time

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
02	24	2003	2003	- 001 - 00		04	24	2003	FACILITY NAME	DOCKET NUMBER 05000
OPERATING MODE (9)		1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check all that apply) (11)							
POWER LEVEL (10)		100%	20.2201(b)			20.2203(a)(3)(ii)			50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)
			20.2201(d)			20.2203(a)(4)			50.73(a)(2)(iii)	50.73(a)(2)(x)
			20.2203(a)(1)			50.36(c)(1)(i)(A)			50.73(a)(2)(iv)(A)	73.71(a)(4)
			20.2203(a)(2)(i)			50.36(c)(1)(ii)(A)			50.73(a)(2)(v)(A)	73.71(a)(5)
			20.2203(a)(2)(ii)			50.36(c)(2)			50.73(a)(2)(v)(B)	OTHER Specify in Abstract below or in NRC Form 366A
			20.2203(a)(2)(iii)			50.46(a)(3)(ii)			50.73(a)(2)(v)(C)	
			20.2203(a)(2)(iv)			50.73(a)(2)(i)(A)			50.73(a)(2)(v)(D)	
			20.2203(a)(2)(v)	X		50.73(a)(2)(i)(B)			50.73(a)(2)(vii)	
			20.2203(a)(2)(vi)			50.73(a)(2)(i)(C)			50.73(a)(2)(viii)(A)	
			20.2203(a)(3)(i)			50.73(a)(2)(ii)(A)			50.73(a)(2)(viii)(B)	

LICENSEE CONTACT FOR THIS LER (12)

NAME C. T. Baucom	TELEPHONE NUMBER (include Area Code) 843-857-1253
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO
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EXPECTED SUBMISSION DATE (15)

MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

At 0000 hours on February 24, 2003, with the unit operating at full power, Technical Specifications (TS) Limiting Condition for Operation (LCO) Applicability requirement 3.0.3 was entered based on failure to meet the required actions of TS LCO 3.1.7. Upon discovery that the required actions of TS LCO 3.1.7 were not met, appropriate action was taken and the required actions were subsequently satisfied at 0043 hours. Safe operation of the plant was not affected by this event. The required action in effect at the time was associated with Condition A, Required Action A.1, which provides actions for inoperability of an analog rod position indication (ARPI). The cause of the event was determined to be operator error. The day-shift operator responsible for performing Required Action A.1 failed to recognize that the recorder had been halted during the February 23, 2003, 0800 hours observation and that this condition continued during the 1600 hours observation. Corrective actions for the event have been completed. The failure to meet the required actions associated with TS LCO 3.1.7 is a condition prohibited by the plant's Technical Specifications. Therefore, this condition is reportable based on 10 CFR 50.73(a)(2)(i)(B), "Any operation or condition prohibited by the plant's Technical Specifications."

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NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

I. DESCRIPTION OF EVENT

At 0000 hours on February 24, 2003, with the unit operating at full power, Technical Specifications (TS) Limiting Condition for Operation (LCO) Applicability requirement 3.0.3 was entered based on failure to meet the required actions of TS LCO 3.1.7. Upon discovery that the required actions of TS LCO 3.1.7 were not met, appropriate action was taken and the required actions were subsequently satisfied at 0043 hours.

The required action in effect at the time was associated with Condition A, "One ARPI [Analog Rod Position Indication] per group inoperable for one or more groups." Required Action A.1 states, "Verify the position of the rods with inoperable position indicators by using the movable incore detectors*." The asterisk (*) refers to a footnote that states, "During Cycle 22, the position of Control Rod H-10, Shutdown Bank B, can be determined by verifying gripper coil parameters of the Control Rod Drive Mechanism have not changed state, until the repair of the indication system is completed." The completion time associated with Required Action A.1 is once per 8 hours. The use of the alternative action described by the footnote was being employed to satisfy Required Action A.1 for Control Rod H-10, which had been previously declared inoperable due to erratic indication [System Identifier Code: JD - Reactor Power Control System].

At approximately 0800 hours on February 23, 2003, the Required Action A.1 had been satisfied as stated in the H. B. Robinson Steam Electric Plant (HBRSEP), Unit No. 2, control room shift log. The 0800 hours entry on February 23, 2003, states, "Verified position of rod H-10 using gripper coil voltage. Chart recorder indicates no interruption of current to the stationary gripper coil and voltage is >0.185 VDC. Current voltage is: 270. This satisfies the required actions for ITS [Improved Technical Specifications] 3.1.7 Condition A." Although it was not known at the time, it was later determined that the chart recorder had been inadvertently stopped when the operator performed the verification.

The next completion of Required Action A.1 was scheduled for 1600 hours, in accordance with the "once per 8 hours" completion time. At approximately 1600 hours, the operator went to the Rod Control Room to perform the observations for the required action. When the operator was performing the required observations, he noted markings on the chart recorder paper and assumed that another operator had already completed the check of the chart recorder. The operator did not look

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closely enough to realize that the markings were his own from 0800 hours that day and that the recorder was in the stopped (also called halted) condition.

The day-shift operator was relieved by the night-shift operator at approximately 1800 hours. The night-shift operator proceeded to perform the observations in the Rod Control Room at 2400 hours. He noticed that the recorder was on, but the paper had not advanced since approximately 0830 hours. The night-shift operator reported his findings to the Control Room Shift Supervisor, who dispatched the Shift Technical Advisor (STA) to the Rod Control Room. When the STA arrived (approximately 0010 hours), he noted that the chart recorder was halted. The STA pressed the HALT/RUN button on the recorder and the recorder paper began advancing.

The Control Room Log states that TS LCO 3.0.3 was entered at 2400 hours due to failure to perform the applicable required actions (i.e., verification of rod position in accordance with Required Action A.1 or reduction of reactor power to $\leq 50\%$ within 8 hours in accordance with Required Action A.2). TS LCO 3.0.3 states that when an LCO is not met and the associated required actions are not met, the unit shall be placed in a mode or other specified condition in which the LCO is not applicable. TS LCO 3.0.3 further states that action shall be initiated within 1 hour to place the unit, as applicable, in MODE 3 within 7 hours; MODE 4 within 13 hours; and, MODE 5 within 37 hours.

The Control Room Log also states that procedure SP-1505, "Determination of the H10 Rod Position Using the Movable Incore Detector System," was started at 0010 hours. SP-1505 was completed at approximately 0043 hours. Completion of SP-1505 restored compliance with Required Action A.1 and allowed TS LCO 3.0.3 to be exited. Operations personnel resumed the required observations once per 8 hours in accordance with LCO 3.1.7, Required Action A.1.

A condition report (number 85523) was initiated and the corrective action program significant adverse condition investigation has been completed. This reportable event and the associated significant adverse condition investigation was reviewed by the Plant Nuclear Safety Committee on April 2, 2003.

The failure to meet the required actions associated with TS LCO 3.1.7 is a condition prohibited by the plant's Technical Specifications. Therefore, this condition is reportable based on 10 CFR 50.73(a)(2)(i)(B), "Any operation or condition prohibited by the plant's Technical Specifications."

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II. CAUSE OF EVENT

The cause of the event was determined to be operator error. The day-shift operator responsible for performing Required Action A.1 failed to recognize that the recorder had been halted during the 0800 hours observation and that this condition continued during the 1600 hours observation. The cause and circumstances of this human performance error were investigated. Potential causal factors were considered, including distractions, hurried or rushed, schedule pressure, fatigue, fitness for duty, work environment, stress, and overconfidence. It was concluded that none of these factors directly contributed to the cause of this event.

The method being used for compliance with LCO 3.1.7, Required Action A.1, was based on an amendment to the HBRSEP, Unit No. 2, TS that had been approved by the NRC on February 13, 2003, by Amendment No. 197. This amendment approved the use of the alternative method for monitoring the position of Control Rod H-10 in lieu of using the movable incore detectors once per 8 hours. The alternative method involves use of a chart recorder to monitor stationary gripper coil voltage. During the investigation of this event, the training materials associated with the implementation of the TS amendment were reviewed. The training was deemed to be sufficient, although it was noted that the training materials lacked details pertaining to the operation of the chart recorder. A corrective action was implemented to address this item.

The operator's conclusion that the chart recorder paper had already been reviewed and annotated for the 1600 hours observation indicates that the operator knew the requirements that needed to be satisfied. The error occurred because the operator failed to validate and confirm the information observed. If the operator had appropriately identified at 1600 hours that the recorder was halted, TS compliance would have been maintained by simply performing SP-1505 at that time. The condition prohibited by the TS arose because the required action time for Required Actions A.1, A.2, and D.1 had elapsed. Together, Required Actions A.1, A.2, and D.1 effectively required the unit to be $\leq 50\%$ power within 16 hours from the previous completion of LCO 3.1.7, Required Action A.1. The 16 hour time limit is based on 8 hours allowed to complete Required Action A.1, plus 25% of 8 hours as allowed by TS Surveillance Requirement (SR) Applicability 3.0.2, and 6 hours to be in MODE 3 in accordance with Required Action D.1 for the required action and associated completion time not met.

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III. ANALYSIS OF EVENT

LCO 3.1.7, Required Action A.1, establishes the appropriate compensating action and completion time for inoperability of an ARPI. If this action cannot be performed, Required Action A.2 allows the unit to be operated at $\leq 50\%$ power indefinitely with no other compensating action. As stated in the bases for LCO 3.1.7, rod positions are monitored and controlled during power operation to ensure that the power distribution and reactivity limits defined by the design power peaking and shutdown margin are preserved. The bases for Required Action A.2 also states that reduction of thermal power to $\leq 50\%$ of rated thermal power more than offsets the increase in core peaking factors due to rod position.

The failure to meet these required actions within the associated completion times requires entry into Condition D of LCO 3.1.7, which states, "Required Action and associate Completion Time not met." Required Action D.1 states that the unit is to be in MODE 3 within a 6 hour completion time. Required Action D.1 can be exited when the unit reaches $\leq 50\%$ power because at that time the requirements of Required Action A.2 would be met. Therefore, the cumulative completion time to reduce power to $\leq 50\%$ was 16 hours from the successful completion of the Required Action A.1. The failure to meet the 16 hour time limit required entry into LCO Applicability 3.0.3. Completion of procedure SP-1505, which satisfied Required Action A.1, allowed LCO Applicability 3.0.3 to be exited, and the recurring completion time of "once per 8 hours" for Required Action A.1 was resumed.

LCO 3.1.7, Required Action A.1, was subsequently satisfied at 16 hours and 43 minutes after the last completion of that required action. This exceeded the 16 hour cumulative time limit for the reactor to be $\leq 50\%$ power by 43 minutes. This also exceeded the allowed time to complete Required Action A.1 by 6 hours. As stated in the license amendment request and associated NRC safety evaluation for the alternate position monitoring for H-10, a rod drop or misalignment would be detectable by the excore nuclear detectors. This provides assurance that if a malfunction associated with Control Rod H-10 had occurred, it would have been detected and appropriate actions taken at that time. Additionally, completion of SP-1505 at 0043 hours confirmed that Control Rod H-10 had not moved from the required, fully withdrawn position. Therefore, safe operation of the plant was not affected by this event.

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IV. CORRECTIVE ACTIONS

The corrective actions for this event that have been completed include the following:

- discussion of this event with each shift at turnover as an interim action,
- a caution tag was placed on the chart recorder warning operators that opening the cover on the recorder will halt the recorder and that pressing the RUN/HALT button will restart the recorder after the cover is closed,
- a night order (03-004) was issued, which clarifies the operation of the recorder,
- a signoff was added to the auxiliary operator log for the review and proper operation of the chart recorder, and
- additional training information was distributed to the operations crews that includes photographs of the recorder and specific details of the different displays.

V. ADDITIONAL INFORMATION

A. Failed Component Information:

There were no failed components associated with this event.

B. Previous Similar Events:

A review of recent (past 3 years) events at HBRSEP, Unit No. 2, for conditions prohibited by the TS was conducted. Licensee Event Report 2002-001-00 identifies steam generator safety valve inoperability discovered during testing that resulted in a condition prohibited by the TS. This event occurred due to equipment malfunction and is not relatable to this event. Licensee Event Report 2001-001-00 identifies a condition where a reactor core protection channel for detection of low reactor coolant system flow was found out-of-tolerance. This event was attributed to human error and lack of procedural guidance. The instrument and control system calibrations are performed by maintenance personnel and use different procedures than those used by the operators in conducting activities associated with the Control Rod H-10 verifications. Therefore, the cause and corrective actions identified by Licensee Event Report 2001-001-00 would not have been expected to prevent the failure to meet the required actions for Control Rod H-10 ARPI inoperability.