

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) **Kewaunee Nuclear Power Plant** DOCKET NUMBER (2) **050000305** PAGE (3) **1 OF 02**

TITLE (4) **Turbine Trip/Reactor Trip**

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)		
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S)
03	16	84	84	002	01	06	01	84	NA		050000
											050000

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)

OPERATING MODE (9) N	20.402(b)	20.406(e)	<input checked="" type="checkbox"/>	50.73(a)(2)(iv)	73.71(b)
POWER LEVEL (10) 002	20.406(a)(1)(i)	50.38(e)(1)	<input type="checkbox"/>	50.73(a)(2)(v)	73.71(e)
	20.406(a)(1)(ii)	50.38(e)(2)	<input type="checkbox"/>	50.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)
	20.406(a)(1)(iii)	50.73(a)(2)(i)	<input type="checkbox"/>	50.73(a)(2)(viii)(A)	
	20.406(a)(1)(iv)	50.73(a)(2)(ii)	<input type="checkbox"/>	50.73(a)(2)(viii)(B)	
	20.406(a)(1)(v)	50.73(a)(2)(iii)	<input type="checkbox"/>	50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)
NAME **Charles S. Smoker - Plant System/Reliability Supervisor** TELEPHONE NUMBER **414 3881-2560**

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS
X	TG	RPD	B290	N					

SUPPLEMENTAL REPORT EXPECTED (14)
 YES (If yes, complete EXPECTED SUBMISSION DATE) NO
EXPECTED SUBMISSION DATE (15) **NA**

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single space typewritten lines) (16)

At 2345 on March 16, 1984, with the reactor at 2% power (main generator off line), the turbine overspeed trip test was begun.

Low electro-hydraulic (EHC) oil pressure, due to an oil leak on turbine control valves #3 and #4, caused the start of the second EHC pump. Manual isolation of the leak resulted in an EHC pressure spike causing the rapid opening of #4 turbine control valve. The increased steam demand caused steam generator 1B level to swell to the hi-hi setpoint coincident with P-7 (at power trip permissive) enabling due to hi turbine impulse pressure. This resulted in a turbine trip/reactor trip.

Immediate operator actions for a turbine trip/reactor trip were taken and systems verified stable.

There was no impact on public health or safety.

IE22

8406050220 840601
PDR ADOCK 05000305
S PDR

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Kewaunee Nuclear Power Plant	DOCKET NUMBER (2) 0 5 0 0 0 3 0 5 8 4 - 0 0 2 - 0 1	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
					0 2	OF 0 2

TEXT (If more space is required, use additional NRC Form 366A's) (17)

Mid-day on March 16, 1984, a load backdown for the scheduled annual refueling outage was initiated. At 2329 the main turbine generator (TG) was taken off line and reactor (RCT) power reduced to 2% (hot standby condition) in preparation for surveillance procedure SP 54-064, "Turbine Overspeed Trip Test".

At 2345, while performing this surveillance procedure, an electro-hydraulic control (TG) fluid leak was indicated by control operator observation of decreasing TG oil pressure and subsequent start of second TG pump. A nonlicensed operator was dispatched to the high pressure turbine (TRB) house to investigate. TG oil was observed to be flowing from #3 and #4 turbine control valves (FCV) rupture disc (RPD) drain (DRN) line. Manual action was taken to isolate the DRN line, and TG oil pressure quickly recovered. The TG demand signal (for overspeed trip testing) was still active causing #4 turbine control valve to open rapidly admitting steam to the high pressure TRB. High TRB impulse pressure due to the increased steam flow enabled permissive P-7 (10%), "turbine at-power trips". Coincident with this, the sudden steam demand caused steam generator (SG) 1B level to "swell" effecting a turbine trip with resultant reactor trip.

The turbine/reactor trip was followed up by the immediate operator actions of emergency operating procedure E-0-04, "Turbine and Reactor Trip". At the time of this event, individual rod position indication for rod (ROD) E-11 was out of service. Therefore, the operators also performed the immediate operator actions of emergency procedure E-CVC-35, "Emergency Boration", requiring emergency boration. Stable plant conditions were verified. There was no adverse affect on public health or safety.

Investigative/corrective maintenance revealed that the TG oil leak was due to RPD's on TRB FCV #3 and #4 rupturing.

Follow-up investigation by plant and turbine generator (TG) vendor personnel failed to positively identify the root cause of the RPD failures. However, lower than recommended nitrogen charge pressure on the accumulators (ACC) on the FCV actuators is believed to be a contributing factor.

Correspondence with the TG vendor indicates that the RPD in the TG system drain lines was intended to supplement the Single Channel Overspeed Trip system (S.C.O.T.S.). Since the S.C.O.T.S is no longer a functioning option on the Kewaunee turbine (it has been replaced by the redundant overspeed trip system), the need for RPD's in the TG system drain lines is precluded. Therefore, on the basis of the vendor's recommendation, the RPD's have been removed, and the lines plugged.

No further investigation or corrective action is planned.

WISCONSIN PUBLIC SERVICE CORPORATION



P.O. Box 1200, Green Bay, Wisconsin 54305

June 1, 1984

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Gentlemen:

Docket 50-305
Operating License DPR-43
Kewaunee Nuclear Power Plant
Reportable Occurrence 84-002-01

In accordance with the requirements of 10 CFR 50.73 "Licensee Event Report System", the attached Licensee Event Report for reportable occurrence 84-002-01 is being submitted.

Very truly yours,

A handwritten signature in cursive script, appearing to read "C. W. Giesler".

C. W. Giesler
Vice President - Power Production

JGT/jks

Attach.

cc - INPO Records Center
Suite 1500, 1100 Circle 75 Parkway
Atlanta, GA 30339
Mr. Robert Nelson, NRC Resident Inspector
RR #1, Box 999, Kewaunee, WI 54216
Mr. S. A. Varga, Chief
US NRC, Washington, DC 20555
Mr. J. G. Keppler, Regional Administrator
Region III, US NRC, 799 Roosevelt Road
Glen Ellyn, IL 60137

IE22
||