NLL-EX 5-118
Input

MEMORANDUM TO: Joseph J. Holonich, Deputy Director
Division of Incident Response Operations
Office of Nuclear Security and Incident Response

FROM: William D. Beckner, Program Director
Operating Reactor Improvements Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

SUBJECT: INES Level Point Beach Event

EX 5

This memorandum transmits the Event Rating Form (ERF) for an event which occurred at the Point Beach Nuclear Facility. The event was rated as an International Nuclear Event Scale (INES) Level 2.

Attachment: Event Review Form (ERF)

cc w/attachment:
T. Reis
W. Beckner
D. Matthews
R. Borchardt
J. Holonich

CONTACT:
J. Dozier NRR/DRIP/RORP/OES
301-415-1014

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Division of Incident Response Operations
Office of Nuclear Security and Incident Response

FROM: William D. Beckner, Program Director
Operating Reactor Improvements Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

SUBJECT: INES Level 3 Point Beach Event

Ex 5

This memorandum transmits the Event Rating Form (ERF) for an event which occurred at the Point Beach Nuclear Facility. The event was rated as an International Nuclear Event Scale (INES) Level 2.

Attachment: Event Review Form (ERF)

cc w/attachment:
T. Reis
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301-415-1014

ADAMS ACCESSION NUMBER:

*See previous concurrence

DOCUMENT NAME: G:\RORP\OES\StaffFolders\Dozier\Inespointbeachdraft.wpd

OFFICE	RSE:OES:RORP	SC:OES:RORP	RA:RIII	PD:RORP	D:DRIP	AD:ADIP
NAME	JDozier	TReis	JDyer	WDBeckner	DBMatthews	RWBorchardt
DATE	07/ /2002	07/11/2002	07/ /2002	07/11/2002	07/ /2002	07/ /2002

OFFICIAL RECORD COPY

EVENT RATING FORM (ERF)

THE INTERNATIONAL NUCLEAR EVENT SCALE (INES)

EVENT TITLE	EVENT DATE
Potential Common Cause Failure of Auxiliary Feedwater	2001.11.29

RATING	RATING DATE	OUT OF SCALE	DEVIATION	INCIDENT			ACCIDENT				FACILITY TYPE			
			0	1	2	3	4	5	6	7				
PROVISIONAL ☐											Power Reactor ■	Research Reactor ☐		
FINAL ■	2002.07.10	☐	☐	☐	■	☐	☐	☐	☐	☐	Radwaste Facility ☐	Radiation Source ☐		
											Irradiation ☐	Transportation ☐		
											Fuel Fabrication ☐	Fuel Reprocessing ☐		
											Research Facility ☐	Mining/Milling ☐		
											Enrichment Facility ☐	Other ☐		

COUNTRY	FACILITY NAME
United States of America	Point Beach, Nuclear Management Co., United States of America
LOCATION	
Two Rivers, Wisconsin	

	YES	NO
OFF-SITE IMPACT		
RELEASE BEYOND AUTHORIZED LIMITS	☐	■
OVEREXPOSURE OF MEMBERS OF PUBLIC	☐	■
ON-SITE IMPACT		
CONTAMINATION SPREAD	☐	■
WORKER OVEREXPOSURE	☐	■
DAMAGE TO RADIOLOGICAL BARRIERS	☐	■
DEGRADATION OF DEFENCE IN-DEPTH	■	☐
PERSON INJURED PHYSICALLY OR CASUALTY	☐	■
IS THERE A CONTINUING PROBLEM	☐	■
PRESS RELEASE ISSUED (IF YES, PLEASE ATTACH)	☐	■

EVENT DESCRIPTION

On November 29, 2001, the licensee identified a potential common mode failure of the auxiliary feedwater (AFW) system upon a loss of instrument air. Specifically, a loss of instrument air would cause the AFW minimum flow recirculation valves to fail closed. At the time, there were no backup air or nitrogen accumulators associated with these specific valves. If the discharge or flow control valves for the AFW pumps had been throttled or closed while the minimum flow recirculation valves were also closed, the AFW pumps would have been placed in a condition of insufficient flow. This could have resulted in pump damage in a short interval of time. The licensee also identified that early in the post reactor trip emergency operating procedures, the operators were directed to control the AFW system flow without specific written guidance to maintain minimum AFW flow. The plant operators were directed to control flow to the steam generators to maintain desired level and to prevent overcooling of the reactor coolant system. The AFW minimum flow recirculation valves are air-operated valves. Without the short-term recovery of instrument air (within less than 10 minutes), the AFW minimum flow recirculation valves would fail closed potentially damaging the AFW pumps and causing the loss of secondary heat removal capability. Heat removal capability through primary

system feed and bleed would also be adversely affected since instrument air is required to operate the pressurizer power-operated relief valves and nitrogen backup was not available. A loss of instrument air would cause a loss of normal feedwater and would initiate a dual-unit reactor trip. In addition, other initiating events, e.g., fire, loss of off-site power, may have a similar vulnerability. The licensee's corrective actions included prompt operator training, procedural changes to the emergency operating procedures, and the addition of back-up pneumatic supplies for the AFW pump minimum flow recirculation valves.

RATING JUSTIFICATION AND DIFFICULTIES ENCOUNTERED

This event was rated in accordance with the INES User's Manual (2001) Edition. There were no off-site or on-site releases or consequences in this event. Also, no actual initiating events occurred. To obtain the INES rating, section IV-3.2.1.3 (b) "Events without a real initiator" of the INES User's Manual was used. The initiating event was assumed to be a loss of instrument air (LOIA). LOIA causes a loss of secondary cooling capability if all afw pumps are damaged due to insufficient flow. Using Table IV of the INES User's manual, the operability of the degraded safety function (core cooling) was considered Adequate (C) because there are diverse means for reactor core cooling. The generic frequency of the initiating event (LOIA) for the industry is 1E-2, thus it has an "expected" frequency. Therefore, the event rating for impact on defense in depth without an actual initiator is INES Level 2.

CONTACT PERSON FOR FURTHER INFORMATION					
NAME	Jerry Dozier	AFFILIATION	US Nuclear Regulatory Commission		
ADDRESS					
PHONE	(301) 415-1014	FAX	(301) 415-1032	E-MAIL	jxd@nrc.gov

TO BE SENT TO THE IAEA INES COORDINATOR
• IAEA,WAGRAMERSTRASSE 5 , P.O. BOX, 100 A-1400 VIENNA, AUSTRIA
• FAX: + 43 1 2600 29723
• E-MAIL: D. Delattre@IAEA ORG
Or D.RUATTI@IAEA.ORG
• PHONE : + 43 1 2600 26068 or 26079

In addition, the following should be added to the *Related Documents* area for the event:

Full Text of Document:
A COPY OF THIS LETTER AND ITS ENCLOSURES IS AVAILABLE ELECTRONICALLY FOR PUBLIC INSPECTION IN THE NRC PUBLIC DOCUMENT ROOM OR FROM THE PUBLICLY AVAILABLE RECORDS (PARS) COMPONENT OF THE NRC'S DOCUMENT SYSTEM (ADAMS). ADAMS IS ACCESSIBLE FROM THE NRC WEB SITE AT http://www.nrc.gov/reading-rm/adams.html (THE PUBLIC ELECTRONIC READING ROOM). THE ADAMS ACCESSION NUMBER FOR THIS REPORT IS _____.

Division of Regulatory Improvement Programs
COVER PAGE

DATE: December 23, 2002

●●● ROUTING LIST ●●●

	NAME	DATE
1.	J. Dozier	07/ /02
2.	T. Reis	07/ /02
3.	W. Beckner	07/ /02
4.	J. Dyer	07/ /02
5.	D. Matthews	07/ /02
6.	R. Borchardt	07/ /02
7.	W. Beckner (Signature)	07/ /02
8.	J. Dozier/E-mail to Holonich	07/ /02

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Ex 5

ADAMS ACCESSION NUMBER: ML DATE ENTERED: / /02

FORM 665 ATTACHED and filled out: **YES** **NO**