

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

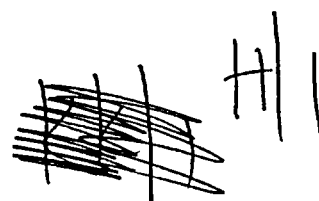
SUBJECT: INES Level 2 Point Beach Event

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

Handwritten signature and initials, possibly "H11", in the bottom right corner.

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

ADAMS ACCESSION NUMBER:

*See previous concurrence

DOCUMENT NAME: G:\RORP\OES\Staff\Folders\Dozier\PointBeach\INES2.wpd

OFFICE	RSE:OES:RORP	SC:OES:RORP	RA:RIII	PD:RORP	D:DRIP	AD:ADIP
NAME	JDozier	TReis	JEDyer	WDBeckner	DBMatthews	RWBorchardt
DATE	07/ 11 /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 Potential Common Cause Failure of Auxiliary Feedwater												EVENT DATE 2001.11.29			
RATING		RATING DATE	OUT OF SCALE	DEVIATION	INCIDENT			ACCIDENT			FACILITY TYPE				
PROVISIONAL	<input type="checkbox"/>			0	1	2	3	4	5	6	7	Power Reactor	<input checked="" type="checkbox"/>	Research Reactor	<input type="checkbox"/>
FINAL	<input checked="" type="checkbox"/>	2002.07.10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Radwaste Facility	<input type="checkbox"/>	Radiation Source	<input type="checkbox"/>
COUNTRY United States of America				FACILITY NAME Point Beach, Nuclear Management Co., United States of America								Irradiation	<input type="checkbox"/>	Transportation	<input type="checkbox"/>
LOCATION Two Rivers, Wisconsin												Fuel Fabrication	<input type="checkbox"/>	Fuel Reprocessing	<input type="checkbox"/>
												Research Facility	<input type="checkbox"/>	Mining/Milling	<input type="checkbox"/>
												Enrichment Facility	<input type="checkbox"/>	Other	<input type="checkbox"/>
OFF-SITE IMPACT												YES	NO		
RELEASE BEYOND AUTHORIZED LIMITS												<input type="checkbox"/>	<input checked="" type="checkbox"/>		
OVEREXPOSURE OF MEMBERS OF PUBLIC												<input type="checkbox"/>	<input checked="" type="checkbox"/>		
ON-SITE IMPACT															
CONTAMINATION SPREAD												<input type="checkbox"/>	<input checked="" type="checkbox"/>		
WORKER OVEREXPOSURE												<input type="checkbox"/>	<input checked="" type="checkbox"/>		
DAMAGE TO RADIOLOGICAL BARRIERS												<input type="checkbox"/>	<input checked="" type="checkbox"/>		
DEGRADATION OF DEFENCE IN-DEPTH												<input checked="" type="checkbox"/>	<input type="checkbox"/>		
PERSON INJURED PHYSICALLY OR CASUALTY												<input type="checkbox"/>	<input checked="" type="checkbox"/>		
IS THERE A CONTINUING PROBLEM												<input type="checkbox"/>	<input checked="" type="checkbox"/>		
PRESS RELEASE ISSUED (IF YES, PLEASE ATTACH)												<input type="checkbox"/>	<input checked="" type="checkbox"/>		
EVENT DESCRIPTION															
<p>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. 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. There was no indication of recirculation flow</p>															

available to operators in the control room. 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 defense in depth provisions remain to perform the safety function. LOIA is judged to be an "Expected" initiating event. 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:

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Division of Regulatory Improvement Programs
COVER PAGE

DATE: December 24, 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

DOCUMENT NAME: G:\RORP\OES\StaffFolders\Dozier\PointBeach\INES2.wpd

ADAMS ACCESSION NUMBER: ML

DATE ENTERED: / /02

FORM 665 ATTACHED and filled out: YES NO