

March 12, 1996

Mr. Neil S. Carns
President and Chief Executive Officer
Wolf Creek Nuclear Operating Corporation
Post Office Box 411
Burlington, Kansas 66839

Dear Mr. Carns:

SUBJECT: INTERNATIONAL NUCLEAR EVENT SCALE EVENT REPORTING FORM

The Nuclear Regulatory Commission (NRC) is forwarding the International Nuclear Event Scale (INES) Event Reporting Form that is being disseminated regarding your declaration of an Unusual Event on January 30, 1996. The event involved the formation of ice on the intake travelling screens of the Circulating Water and Service Water Systems and the formation of frazil ice on the intake trash rack of the Emergency Service Water System.

The NRC participates in the INES in a limited way, as was communicated to you through Generic Letter 92-09, issued on December 31, 1992. As stated in the Generic Letter, the INES rating is not intended to affect emergency classifications, event reporting to the NRC, or communications with the public. Because usage of the INES could lead to confusion with the existing four-level emergency response scale used in the United States, the NRC delays the INES rating for at least one week after the event is terminated. The NRC normally evaluates only those events classified as an Alert or higher on the U.S. emergency response scale for its INES applicability; however we may elect to evaluate other events as in this case. An INES Event Rating Form is then prepared utilizing available documentation pertaining to the event. Not every evaluated event will necessarily receive an INES classification, as some may be rated "out of scale". In this case, the event was classified as "level 2." A copy of the rating form is enclosed.

The NRC does not request a review or concurrence with the INES classification nor is any response requested. If you have any questions, please contact me at (301) 415-3063.

Sincerely,

Original signed by M. Fields for:
James C. Stone, Senior Project Manager
Project Directorate IV-2
Division of Reactor Projects
Office of Nuclear Reactor Regulation

Docket No. 50-482

Enclosure: Event Reporting Form

cc w/encl: See Next Page

150013

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DOCUMENT NAME: INESLTR.WC

OFFICE	PDIV-2/LA	PDIV-2/PM
NAME	EPeyton	JStone:pk ^{M. Fields}
DATE	3/13/96	3/12/96

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Mr. Neil S. Carns

- 2 -

cc w/encl:

Jay Silberg, Esq.
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Washington, D.C. 20037

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Kansas Corporation Commission
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Topeka, Kansas 66604-4027

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State of Kansas
Topeka, Kansas 66612

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Division of Environment
Kansas Department of Health
and Environment
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Arlington, Texas 76011

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Burlington, Kansas 66839

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Resident Inspectors Office
8201 NRC Road
Steedman, Missouri 65077-1302

Supervisor Regulatory Compliance
Wolf Creek Nuclear Operating Corporation
P. O. Box 411
Burlington, Kansas 66839

LETTER, DATED 3/12/96 , TO N.S. CARNS ON THE INTERNATIONAL NUCLEAR EVENT
SCALE REPORTING FORM

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THE INTERNATIONAL NUCLEAR EVENT SCALE (INES)

EVENT RATING FORM (ERF)

TO BE SENT TO THE IAEA INES COORDINATOR BY

• FAX: + 43 1 2060 29723

• PHONE: + 43 1 2060 22686

IAEA, WAGRAMERSTRASSE 5, P.O. BOX 100, A-1400 VIENNA, AUSTRIA

• E-MAIL: THOMAS@NEPO1.IAEA.ORG.AT

EVENT TITLE	PARTIAL LOSS OF ESSENTIAL SERVICE WATER DUE TO FRAZIL ICE ON INTAKE TRASH RACKS						EVENT DATE 30.01.96					
RATING	RATING DATE	OUT OF SCALE	BELOW SCALE	ON SCALE				SAFETY ATTRIBUTE				
PROVISIONAL <input type="checkbox"/>				0	1	2	3	4	5	6	7	DEGR. DEFENCE IN-DEPTH <input checked="" type="checkbox"/>
FINAL <input checked="" type="checkbox"/>	15.02.96					<input checked="" type="checkbox"/>						ON-SITE IMPACT
												OFF-SITE IMPACT
COUNTRY	USA	FACILITY NAME		WOLF CREEK GENERATING STATION				FACILITY TYPE	PWR			

ASPECTS OF SIGNIFICANCE TO THE PUBLIC:

YES

NO

ACCIDENT INCIDENT DEVIATION

- RADIOACTIVE RELEASES OFF-SITE
- RADIOACTIVE RELEASES ON-SITE
- WORKERS INJURED BY RADIATION
- WORKERS INJURED PHYSICALLY
- PLANT SAFETY IS UNDER CONTROL
- THE EVENT REPORTED IS A DISCOVERY OF A DEFICIENCY BY ROUTINE SURVEILLANCE
- A PRESS RELEASE WAS MADE (IF YES, PLEASE ATTACH IT)

<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

SHORT DESCRIPTION OF THE EVENT: Shortly before 0300 EST, on 30 January 1996, operators at the Wolf Creek Generating Station received indication of decreasing water levels in the Circulating (CW) and Service (SW) Water pump intake structure and started both Essential Service Water (ESW) pumps. The decrease in water level was caused by the formation of ice on the intake travelling screens. At 0437 operators manually tripped the reactor from 80% power in anticipation of the need to trip the CW pumps. Following reactor trip, five control rods failed to fully insert, (10 to 29 cm out). This failure to fully insert did not directly affect the event, but it did complicate the operators' response. Decay heat was removed through the steam generators using the atmospheric relief valves with feed from the Auxiliary Feedwater pumps. At 0614 the Turbine-driven Auxiliary Feedwater pump was secured and declared inoperable due to a shaft gland leak. At 0847 the "A" ESW pump was secured due to low ESW pump intake level caused by the formation of "frazil" ice below the surface of the water on the intake trash rack. Although the "B" ESW train remained in operation throughout the event, there were several occasions when the "B" ESW pump intake water level decreased to a level that threatened to render this pump inoperable as well.

JUSTIFICATION OF THE RATING: The manual reactor trip and loss of the Main Condenser following the imminent loss of the Circulating Water pumps resulted in initiation of the safety related Auxiliary Feedwater System. Core cooling with the Motor-driven Auxiliary Feedwater

CONTACT	NAME	Richard J. Barrett
PERSON	ADDRESS	USNRC, Washington, DC 20555
FOR FURTHER	PHONE	(301) 415-7482
INFORMATION	FAX	(301) 816-5151

PLEASE ATTACH ADDITIONAL INFORMATION ON JUSTIFICATION OF THE EVENT RATING AND DIFFICULTIES ENCOUNTERED, IF NEEDED

JUSTIFICATION OF THE RATING: (Continued)

pumps (after the turbine-driven auxiliary feedwater pump was declared inoperable) was dependent upon either the ESW system (provides emergency diesel generator cooling) or offsite power. Offsite power remained available through the event. The "B" ESW train and one SW pump remained in operation throughout the event. The SW pump could also have been used to supply ESW loads. In addition, the plant had sufficient make-up inventory and a diesel driven fire pump that could have been used to feed the steam generators if necessary. Based on Severity Classification Criteria for Degradation of Defense in Depth with an Initiator (Table II), this event would be rated a Level 1/2. However, there are additional factors that were considered. Taken together, these additional factors justify rating the event as a Level 2. The first additional factor was the common cause failure potential introduced by the "frazil" ice phenomena. The second factor was that a control room operator did not align the ESW System in accordance with the operating procedure which resulted in a decrease in flow through the ESW pump intake structure warming lines. This decrease in warming flow was a contributor to the loss of the "A" ESW train and the potential loss of the "B" ESW train due to "frazil" ice buildup on the trash racks early that morning.

On-site and off-site impact criteria were not relevant for this event.

LETTER, DATED 3/12/96 , TO W.S. CARNS ON THE INTERNATIONAL NUCLEAR EVENT
SCALE REPORTING FORM

DISTRIBUTION (w/enclosure)

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The NRC does not request a review or concurrence with the INES classification nor is any response requested. If you have any questions, please contact me at (301) 415-3063.

Sincerely,

Original signed by M. Fields for:
James C. Stone, Senior Project Manager
Project Directorate IV-2
Division of Reactor Projects
Office of Nuclear Reactor Regulation

Docket No. 50-482

Enclosure: Event Reporting Form

cc w/encl: See Next Page

DOCUMENT NAME: INESLTR.WC

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NAME	EPeyton	JStone:pk ^{for}
DATE	3/13/96	3/12/96

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Shaw, Pittman, Potts & Trowbridge
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PROVISIONAL													ON-SITE IMPACT	
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COUNTRY	USA	FACILITY NAME		WOLF CREEK GENERATING STATION						FACILITY TYPE		PWR		

ASPECTS OF SIGNIFICANCE TO THE PUBLIC:

	YES	NO
ACCIDENT <input type="checkbox"/>		
INCIDENT <input checked="" type="checkbox"/>		
DEVIATION <input type="checkbox"/>		

- RADIOACTIVE RELEASES OFF-SITE YES NO
- RADIOACTIVE RELEASES ON-SITE YES NO
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