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E910-03-039  
October 8, 2003

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555

Subject: Saxton Nuclear Experimental Corporation (SNEC)  
Operating License No., DPR-4  
Docket No. 50-146  
Licensee Event Report (LER) NO. 2003-002-00, Failure of the  
Decommissioning Support Facility Alarm

Gentlemen,

This letter transmits LER No. 2003-002-00, regarding the discovery of a problem with the intrusion alarm on the Saxton Nuclear Experimental Corporation (SNEC) Facility Decommissioning Support Facility.

For a complete description of the event refer to the text of the report provided on the attached NRC Forms 366 and 366A.

This condition did not adversely affect the health and safety of the public. If you have any questions please contact Mr. James J. Byrne at (717) 948-8461

  
G. A. Kuehn  
Program Director, SNEC

cc: NRC Project Manager  
NRC Project Scientist, Region 1

IE22

**LICENSEE EVENT REPORT (LER)**

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

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

<b>FACILITY NAME (1)</b> Saxton Nuclear Experimental Corporation Facility	<b>DOCKET NUMBER (2)</b> 05000146	<b>PAGE (3)</b> 1 OF 4
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TITLE (4)

**FAILURE OF THE DECOMMISSIONING SUPPORT FACILITY INTRUSION ALARM**

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 NAME	DOCKET NUMBER	
09	10	2003	2003	- 002 -	00	10	08	2003	FACILITY NAME	DOCKET NUMBER	
<b>THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)</b>											
<b>OPERATING MODE (9)</b>		N		20.2201(b)		20.2203(a)(2)(v)		X 50.73(a)(2)(i)		50.73(a)(2)(vii)	
<b>POWER LEVEL (10)</b>		000		20.2203(a)(1)		20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(x)	
				20.2203(a)(2)(i)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71	
				20.2203(a)(2)(ii)		20.2203(a)(4)		50.73(a)(2)(iv)		OTHER	
				20.2203(a)(2)(iii)		50.36(c)(1)		50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A	
				20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)			

**LICENSEE CONTACT FOR THIS LER (12)**

<b>NAME</b> James J. Byrne	<b>TELEPHONE NUMBER (Include Area Code)</b> (717) 948-8461
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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)**

<b>YES</b> (If yes, complete EXPECTED SUBMISSION DATE).	<b>X</b>	<b>NO</b>	<b>EXPECTED SUBMISSION DATE (15)</b>	<b>MONTH</b>	<b>DAY</b>	<b>YEAR</b>
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**ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)**

The Saxton Nuclear Experimental Corporation (SNEC) Facility is in the final stages of decommissioning. Upon initial entry into the Decommissioning Support Facility (DSF) on 9/10/03 the Radiological Controls Technician performing the entry noted that the DSF alarm was not armed as required by the SNEC Facility Technical Specifications. Entry into the DSF would allow undeterred entry into the SNEC Facility Containment Vessel.

A single root cause for this event could not be determined. A potential cause was a failure of the responsible Radiological Controls Technician to correctly arm the alarm on 9/9/03. To address this possible cause a requirement for a second individual to verify the arming of the intrusion alarms has been instituted. However a separate identical alarm, not required by Technical Specifications, in another area of the facility, which was armed by a different Radiological Controls Technician on 9/9/03, was also found not to be armed on 9/10/03. This could indicate some failure of the alarm system but testing to date did not identify any deficiencies. However, as the condition of the alarm is suspect the SNEC Facility Exclusion Area has been reduced to the shell of the Containment Vessel as allowed by the SNEC Facility Technical Specifications and the DSF alarm has been removed from service.

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**I. Plant Operating Conditions Before the Event**

The Saxton Nuclear Experimental Corp. (SNEC) facility is shutdown, defueled and undergoing decommissioning.

**II Status of Structures, Components, or Systems That Were Inoperable at the Start of the Event and that Contributed to the Event.**

None.

**III Event Description**

Upon initial entry of the Decommissioning Support Facility (DSF) on 9/10/03, a Radiological Controls Technician noticed that the DSF alarm System was not armed overnight, when the site was not manned. Entry into the DSF would allow undeterred entry into SNEC Facility Containment Vessel (CV).

This deficiency is a violation of the SNEC Facility Technical Specifications (TS), Section 1.1.3.2 which states the following:

*The Containment Vessel (CV) and the Decommissioning Support Facility (DSF) shall be equipped with an intrusion alarm system. Intrusion alarms will be activated whenever the site is not manned. Operability shall be verified in accordance with Section 3.5.3.1.b.*

Additionally the same Radiological Controls Technician reported that the Radiological Controls Count Room Trailer alarm was also not armed during the same period. This alarm was set by a different Radiological Controls Technician and is the same type as the DSF alarm but is not required by the SNEC Facility Technical Specifications.

**IV Assessment of Safety Consequences and Implications of the Event**

There were no safety consequences as a result of the event. There was no evidence of unauthorized entry and no other intrusion alarms were identified during the period that the DSF alarm was not operational.

**V Previous Events and Extent of Condition**

Event Report 2001-01 reported an event in which the Radiological Controls Technician performing the end of the day checklist failed to verify that a door, which would permit access to the CV, was locked. Corrective action implemented for this event was the briefing of all site personnel on the importance of physically verifying that actions are complete. This corrective action was inadequate to prevent recurrence, as it didn't include briefing of new personnel.

LER 2003-001-00 reported an event in which the CV intrusion alarm (IA/XA) for the west CV door had been in an alarm condition for the past several days. A misadjusted alarm switch and the Radiological Controls Technician failure to properly verify its operability with First Energy Dispatch caused this event.

**VI Identification of Root Cause**

No definitive root cause has been determined for this event, however, the following two possible causes have been identified:

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- a. Attention to Detail - The Radiological Controls Technicians may have entered the wrong codes during arming of alarms.
- b. Equipment Failure - Since both the DSF and Count Room Trailer alarms were found unarmed, a system malfunction may have occurred overnight which deactivated the alarms. Two different Radiological Controls Technicians set these alarms as indicated by the End of Day Checklist for 9/09/03. It is considered unlikely that two different Technicians did not adequately set two different alarms on the same evening.

## VII Corrective Actions

### Immediate and Short Term:

#### Attention to Detail

The Radiological Controls Technicians who were responsible for closing and locking the DSF and Count Room Trailer on 9/09/03 were interviewed. Both technicians stated that they were sure that the alarm systems were armed when they exited the site. The technicians appeared to have an adequate understanding of how the system is armed and de-armed.

The Radiological Controls Technician who was responsible for opening the DSF and Count Room Trailer on 9/10/03 was also interviewed. The technician stated that he was sure that both alarm systems were not armed when entered. The technician appeared to have an adequate understanding of how the system is armed and de-armed.

The Radiation Safety Officer (RSO) initiated an administrative requirement to have a second individual verify that the CV/DSF intrusion alarms are armed at the end of SNEC operations for the day.

Individuals who have access to the site outside of normal working hours were interviewed to determine if they entered these areas between setting the alarms on 9/9/03 and the initial entry to these areas on 9/10/03. All of these personnel stated that they did not enter the site during this period.

#### Equipment Failure

Nationwide Security was contacted to determine if they received any intrusion alarms between 9/09/03 and 9/10/03 and if an alarm failure was indicated. No alarms were received and the system appeared to be operating satisfactorily (no trouble alarms were indicated) however they have no method of determining whether the alarm was armed. ALSENCO Security was also contacted concerning the possibility of a power failure or other event causing the alarm systems to de-arm. An ALSENCO Security maintenance technician stated that he didn't believe that this was possible but they have had failures due to defective cards. If there is a defect with a card, the alarm system should not be capable of arming. Testing showed that both the DSF and Count Room alarms are capable of arming and de-arming.

A complete test of the DSF intrusion alarm was conducted on 9/10/03, which included arming and de-arming the system, local and remote alarm verification, and verification of sensors within the DSF. No deficiencies were identified.

Independent testing (i.e., entering a wrong code, arming and de-arming the systems) of the DSF alarm was also conducted by a different individual. The system appears to be operating satisfactorily, but the keypad numbers occasionally stick when they are pressed.

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As permitted by the SNEC Facility Technical Specifications the Exclusion Area alarm has been moved to the door between the Containment Vessel and the DSF. This change puts the Exclusion Area alarms on a single alarm system monitored by First Energy Dispatch.

**Long Term:**

Final Status Survey of the SNEC Facility Containment Vessel has recently been completed. Upon NRC acceptance of the results of this survey a pending change to the Technical Specifications will be issued which will eliminate the requirement for an alarmed exclusion area.