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E910-03-019

April 30, 2003

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

Gentlemen,

Subject: Saxton Nuclear Experimental Corporation (SNEC)  
Operating License No. DPR-4  
Docket No. 50-146  
2002 Annual Report

The purpose of this letter is to submit a written report covering the status of the Saxton Nuclear Experimental Corporation (SNEC) Facility in accordance with Section 3.8.2 of the Saxton Nuclear Experimental Corporation (SNEC) Technical Specifications.

The report is for the period beginning January 1, 2002 through December 31, 2002.

Sincerely,

A handwritten signature in black ink, appearing to read "G. A. Kuehn", with a long horizontal flourish extending to the right.

G. A. Kuehn  
Vice President SNEC

cc: NRC Project Manager NRR  
NRC Project Scientist, Region 1

4020

**SAXTON NUCLEAR EXPERIMENTAL CORPORATION**

**2002**

**ANNUAL REPORT**

**FOR THE**

**SAXTON NUCLEAR EXPERIMENTAL CORPORATION FACILITY**

**January 1, 2002 - December 31, 2002**

## **EXECUTIVE SUMMARY**

During the report period January 1, 2002 through December 31, 2002, various activities were conducted at the Saxton Nuclear Experimental Corporation (SNEC) Facility to prepare for license termination. SNEC Facility Radiological Controls personnel continued to monitor radiological conditions at the site to assure protection of the health and safety of the general public and site personnel.

This report reviews those activities as required by the Technical Specifications Section 3.8.2 and includes:

- A. Information relating to changes in those management and supervisory positions designated in the Technical Specifications Section 3.1 (Organization and Responsibilities) as being responsible for decommissioning the facility.
- B. A summary of decommissioning, design, and maintenance changes made to the deactivated facility.
- C. Results of surveys and monitoring performed in accordance with Technical Specifications Section 3.6.2.1 (Radioactive Effluent Controls Program) and 3.6.2.2 (Radiological Environmental Monitoring Program).
- D. A review of the performance of access control and surveillance measures.

# **ANNUAL REPORT IN COMPLIANCE WITH PARAGRAPH 3.8.2 OF THE SNEC TECHNICAL SPECIFICATIONS**

**JANUARY 1, 2002 - DECEMBER 31, 2002**

This report was prepared in accordance with Section 3.8.2 of the SNEC Technical Specifications. The reporting period covers January 1, 2002 through December 31, 2002. Each section presented below corresponds to a reporting requirement of Section 3.8.2.

- A. Section 3.8.2.1 - The following is information relating to changes in those management and supervisory positions designated in Section 3.1 of the Technical Specifications:**

One incumbent Radiological Controls Technician was promoted to the position of GRCS to support decommissioning and final status survey activities.

- B. Section 3.8.2.2 - The following is a summary of decommissioning, design, and maintenance changes made to the deactivated facility:**

**1. CV Stabilization to Support Containment Vessel (CV) Concrete Removal**

- a. Cleaned the outside of the CV shell and performed the Final Status Survey (FSS) in the areas of the rock anchor hold down rings.
- b. Completed installation and welding of the CV rock anchor hold down rings to the external CV shell.
- c. Completed drilling, installation, grouting and testing of 40 rock anchor bolts.
- d. Completed the drilling, installation and testing of the eight annulus and bedrock dewatering wells. Installed an additional three sand wells.
- e. Completed installation of the dewatering management distribution system, including power distribution and an emergency back up generator.
- f. Completed cleaning and FSS of areas to be covered by the internal support rings.
- g. Completed installation of two GTS designed internal rock anchor support rings.
- h. Completed installation of the five internal support rings. This work was performed in conjunction with CV concrete removal.

**2. CV Concrete Removal**

- a. Completed installation of the CV dust suppression water collection system and exhaust ventilation system.
- b. Installed a cantilevered steel platform extending from the Decommissioning Support Building (DSB) and projecting 16' into the CV at elevation 812'.
- c. Installed a steel catwalk and ladders to provide access to the CV bottom.

- d. Utilizing a Komatsu 120 backhoe, 2660.9 tons of concrete was demolished and removed from the CV.
  - e. 727 B-25 shipping boxes were loaded and shipped to Duratek for processing and disposal.
  - f. Welded a patch over the core drill breach of the bottom head.
  - g. The Komatsu 120 backhoe was decontaminated and released.
3. CV Final Status Survey (FSS) preparations
- a. The polar crane and upper areas of the CV dome were cleaned and post remediation surveys were performed.
  - b. Twenty-four radiologically contaminated pipe penetrations were removed from the CV shell and closure plates were welded in their place.
4. Balance of Plant
- a. Concrete debris was removed from the Saxton Steam Generating Station (SSGS) footprint. The material was then crushed and stock piled for future surveying.
  - b. The soil processing shed, water well tank, and stored materials in the old Penelec Warehouse and Garage were relocated.
  - c. The old Penelec Warehouse and Garage were demolished and bricks were crushed for future surveying.
  - d. Decommissioning and removal of the water processing tank farm began.
  - e. Two trailers located on the old Westinghouse Warehouse pad were relocated and pad was demolished.
5. Intake & discharge tunnels
- a. Removed debris and silt from the SSGS Intake Tunnel.
  - b. Sealed the Intake Tunnel inlet with concrete.
  - c. Continued to pump water and maintain SSGS Discharge and Intake Tunnels.
6. Other
- a. Continued shipping decommissioning related radioactive waste (i.e., dry activated waste, concrete debris, contaminated steel, etc.).

- C. Section 3.8.2.3 - Results of surveys and monitoring performed in accordance with Technical Specifications Sections 3.6.2.1 (Radioactive Effluent Controls Program) and 3.6.2.2 (Radiological Environmental Monitoring Program).

The results of the Radioactive Effluent Controls Program and the Radiological Environmental Monitoring Program were submitted to the NRC via GPU Nuclear Letters E910-03-017 and E910-03-018 both dated April 30, 2003.

- D. Section 3.8.2.4 - The following is a review of the performance of access control and surveillance measures:

Access Control

1. A uniformed SNEC Site Watchman (Unarmed Security Officer) continues to provide access control to the site during normal work hours. All SNEC personnel continue to display security badges during normal work hours. Temporary badges are issued to visitor personnel. A site escort is required until the visitor receives Site Specific Access Training in accordance with 10CFR19.12.
2. SNEC Facility Management is responsible for maintaining access control to the Exclusion Area. The Exclusion Area (Decommissioning Support Facility and Containment Vessel) is maintained locked and a security alarm system is activated during non-working hours.
  - a. There were no break-ins or known attempted break-ins at the SNEC Facility during the year 2002.

Surveillances

All Technical Specification surveillances were performed in the required frequency as described in TS Section 3.5.3.1, unless specifically noted below. The following surveillance inspections were reviewed for this report:

1. Verification that Exclusion Area access points are secured at the completion of each authorized entry.

All surveillance inspections were performed satisfactorily in the year 2002.
2. Verification of the operability of the Exclusion Area intrusion alarms performed quarterly.

All surveillance inspections were performed satisfactorily in the year 2002.
3. The Station Ventilation System Effluent Particulate Monitor channel checks, source checks, channel test and channel calibration shall be performed at a frequency specified in the SNEC Facility Offsite Dose Calculation Manual (ODCM).

One deficiency was identified during the Station Ventilation System Effluent Particulate Monitor calibration. The particulate filter sample holder "O" ring was found missing during the surveillance. A SNEC Corrective Action Program (CAP) Form was generated to document the event and to determine corrective actions. The investigation concluded that the presence of the "O" ring is desirable and is recommended by the manufacturer.

However, an inspection of the sample holder revealed that the end cap without the "O" ring still produces a tight fit or seal. The particulate filter should be tightly drawn towards the seating surface during sample pump operation. The absence of the "O" ring will not significantly degrade the performance of the system with regard to collection of material on the particulate filter or system operability to successfully detect radioactivity and shut down ventilation during an alarm condition. Corrective actions involved installation of a new "O" ring and a procedure change for Rad Con Technicians to inspect the "O" rings on a weekly basis. This event had no impact on the safety of the public or the environment.

4. The Station Ventilation System HEPA filter will be tested to verify efficiencies in accordance with the requirements of the ODCM.

The annual Station Ventilation System HEPA filter DOP test was performed on 8/20/02. The filters were changed and re-tested on 10/31/02 because of an elevated reading on the HEPA filter differential pressure gauge. There were no surveillance deficiencies involving Station Ventilation System HEPA filter testing in 2002.