

SAXTON NUCLEAR EXPERIMENTAL CORPORATION

ANNUAL REPORT

FOR THE PERIOD OF

JANUARY 1, 1982 - DECEMBER 31, 1982

Annual Report in compliance with Paragraph B.5.b of the Technical Specifications

1. "Information relating to changes in those staff positions that are designated as being responsible for the deactivated facility."

In September 1982, a new Manager for the Radiological & Environmental Monitoring Program was appointed, and the Vice President of SNEC was designated as the responsible Corporate Officer, pursuant to NRC Regulation 10CFR 21.21(a).

2. "A summary of entries into the Containment Vessel or Radioactive Waste Disposal Facility, and the reasons for entry."

Entries were made into the Containment Vessel and/or Radioactive Waste Disposal Facility, as follows:

<u>Date</u>	<u>Purpose</u>
1) 03-19-82	First Quarter Radiological Survey
2) 04-02-82	Environmental Survey and First Quarter TLD Change
3) 05-13-82	Radiological Sampling
4) 06-08-82	Site Inspection
5) 06-09-82	Second Quarter Radiological Survey
6) 09-22-82	Third Quarter Radiological Survey
7) 10-01-82	Third Quarter Environmental Survey and TLD Change
8) 10-18-82	Installation of Security Bars on Windows
9) 12-16-82	Fourth Quarter Radiological and Environmental Surveys and TLD Change
10) 12-17-82	In addition to the above, TMI Nuclear Station Communication Department video documentation

3. "A summary of maintenance and design changes made to the deactivated facility."

In March, 1982, the drain pipe in the Containment Vessel was cut and capped in an attempt to prevent the flow of water to the Containment Vessel sump.

In October, 1982, security bars were installed on selected windows and doors of the Control and Auxiliary (C&A) Building, and the Radioactive Waste Disposal Facility (RWDF) Building.

4. "Results of surveys of radioactivity levels and of water sample analyses."

Results of the 1982 Quarterly Inspections of the facility are as follows:

- 1) Radiation levels at the exclusion area fence ranged from <0.01 mR/hr to <0.06 mR/hr.
- 2) Radiation levels at the Containment Vessel's breather pipe filter ranged from <0.05 mR/hr to <0.02 mR/hr.
- 3) Radiation levels at the 20 permanently marked survey points in the Containment Vessel ranged from <0.02 mR/hr. to <0.12 mR/hr. Smear surveys from the same 20 points yielded a range of <500 to 9,000 dpm.
- 4) Radiation levels in the Containment Vessel above elevation 812' ranged from .05 to 0.1 mR/hr.

See attachments: Table 1 - SNEC Pipe Tunnel Water 1982
Table 2 - SNEC RWDF Building Water 1982

Inspection of the Containment Vessel lower levels indicates the vessel is dry and free of water.

The water in the Containment Vessel sump, reported by SNEC letter to NRC Office of Inspection and Enforcement dated April 27, 1982, was removed from the sump, packaged with Vermiculite in two 55 gallon drums, and stored in the Containment Vessel.

5. "A summary of the performance of security and surveillance measures."

There were no observed attempted break-ins, vandalism, or other security breaches at the facility during 1982.

TABLE 1

SNEC PIPE TUNNEL WATER 1982 (uCi/ml)

<u>Isotope</u>	<u>1st Qtr.</u> <u>3/19/82</u>	<u>2nd Qtr.</u> <u>6/9/82</u>	<u>3rd Qtr.</u> <u>9/22/82</u>	<u>4th Qtr.</u> <u>12/17/83</u>
I-131	<3.0E-8	<1.5E-7	<1.2E-7	<1.1E-7
Cs-134	<3.4E-8	<2.6E-7	<1.5E-7	<1.5E-7
Cs-137	2.2E-7 <u>+2.4E-8</u>	2.0E-7 <u>+6.2E-8</u>	2.7E-7 <u>+1.1E-7</u>	4.5E-7 <u>+7.8E-8</u>
Co-58	<3.1E-8	<2.4E-7	<1.4E-7	<1.4E-7
Co-60	<4.4E-8	<3.6E-7	<2.0E-7	<2.0E-7
G-Beta	<5.53E-6	1.4E-6 <u>+2.2E-7</u>	2.3E-7 <u>+4.0E-8</u>	*

*Gross Beta analysis was inadvertently omitted
from the request for analysis.

TABLE 2

SNEC RWDF BUILDING WATER 1982 (uCi/ml)

<u>Isotope</u>	<u>1st Qtr.</u> <u>3/19/82</u>	<u>2nd Qtr.</u> <u>6/9/82</u>	<u>3rd Qtr.</u> <u>9/22/82</u>	<u>4th Qtr.*</u> <u>12/17/83</u>
I-131	<1.0E-7	<1.4E-7	<1.8E-7	<2.0E-8
Cs-134	<1.5E-7	<1.5E-7	<2.6E-7	<7.0E-9
Cs-137	$\frac{2.6E-7}{+7.0E-8}$	$\frac{2.7E-7}{+5.5E-8}$	<3.6E-7	$\frac{3.2E-7}{+3.3E-8}$
Co-58	<1.4E-7	<1.4E-7	<2.4E-7	<6.0E-9
Co-60	<2.0E-7	<2.0E-7	<3.6E-7	<6.0E-9
G. Beta	<3.9E-6	$\frac{1.8E-7}{+1.2E-7}$	$\frac{1.8E-7}{+3.8E-8}$	$\frac{3.8E-7}{+1.0E-8}$

*The difference in LLD levels between Quaters 1-3, and 4 are due to a change in analytical laboratories.