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1/14/71

January 14, 1971

A. A. O'Kelly
H. G. Mangelsdorf

STATUS REPORT FOR SAXTON PLANT VISIT

Attached are a status report and an agenda for the plant visit of January 26, 1971. Reservations have been made for you at the Holiday Inn, Altoona, Pennsylvania, and the Saxton people (Montgomery, et al) will arrange to meet your arriving flight at the airport. Please call the ACRS office (Ethel) when you know your arrival time so pickups can be arranged.

J. E. Hard

J. E. Hard
Senior Staff Assistant

Attachments:
1. Saxton Status Report
2. Agenda for Visit to Saxton

cc: W. J. Kaufman, w/attachments

FILE: Saxton project file

▶	ACRS					
	JEHard:emb	[redacted]				
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JKH:emb
1/18/71

Project: Saxton

Status : Operating Plant Visit

Discussion: Saxton is a pressurized-water testing reactor currently authorized to operate at powers up to 28 MWt. It is the only reactor in the U. S. to employ a multi-layered pressure vessel. Its principal use is to test fuel and equipment and to train operating personnel. The owner-operator is the Saxton Nuclear Experimental Corporation, which is a wholly-owned subsidiary of General Public Utilities. Westinghouse provides technical support to SNEC.

The plant was built in the years 1960-62 and achieved initial criticality on April 13, 1962. The last ACRS review of Saxton was in August, 1967 when the Committee approved short-term reactor operation at 35 MWt. Since then, tests have been run, primarily for Westinghouse, on the following:

1. Glass burnable poison rods
2. Internally pressurized PuO_2-UO_2 fuel rods
3. Loose-lattice high power fuel rods
4. Load-follow high power fuel rods
5. Effects of coolant pH on fuel temperature
6. Fuel failure monitoring systems
7. Crevice corrosion and hydriding tests on fuel
8. Clad creep rates,
9. And many other subjects.

The biggest potential problem at Saxton appears to be operation with failed fuel in the reactor. This results in very high radioactivity levels in the primary coolant ($>100\ \mu Ci/cc$), in high radiation levels to personnel, and in large amounts of highly radioactive wastes. Several accidental releases of liquids and gases have occurred in the last two years. Emphasis on this matter and on the nature (character) of the fuel failures is recommended.

An agenda for the visit is attached.

* * *

OFFICE ▶						
NAME ▶						
DATE ▶						

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FORM AEC-318 (Rev. 9-53)

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JEH:mab
1/14/71

AGENDA FOR VISIT TO SAXTON
JANUARY 26, 1971

1. Tour of Saxton facility.

2. Review of current and future plans for use of facility.

3. Discussion on performance of loose-lattice and load-follow fuel. Nature of fuel failures.

4. Discussion on radiological effects of high activity primary coolant - personnel exposures, in-plant airborne activity, activity to environment.

5. Review of recent accidental releases of radwaste gases.

6. Review of performance of fuel failure monitoring system.

7. Discussion on effect of proposed downstream dam on site to flooding potential.

oOo

OFFICE ▶
SURNAME ▶
DATE ▶

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Form AEC-318 (Rev. 9-53)