

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Docket No: 50-146
License No: DPR-4

Report No: 96-01

Licensees: GPU Nuclear Corporation and
Saxton Nuclear Experimental Corporation

Facility: Saxton Nuclear Experimental Facility

Location: Saxton, Pennsylvania 16678

Dates: November 19-21, 1996

Inspector: Thomas F. Dragoun, Project Scientist

Approved by: John R. White, Chief, Radiation Safety Branch
Division of Reactor Safety

EXECUTIVE SUMMARY

Saxton Nuclear Experimental Facility
NRC Inspection Report No. 50-146/96-01

Addition of temporary trailer facilities and new building construction to support decommissioning was well planned. Safety practices and supervisory oversight of the small work force was good. The licensee's process of performing safety reviews as required by 10 CFR 50.59 is inconsistently implemented.

Report Details

Summary of Plant Status

Construction of the new decommissioning support building is near completion. Grading and placing of crushed stone for access roads to the new building was underway. Asbestos removal in the reactor containment continued.

DI Industrial Safety

a. Inspection Scope

The inspector reviewed the following areas:

- Control and monitoring of asbestos:
- Control of workplace industrial hazards; and,
- Conduct of the industrial safety program.

b. Observations and Findings

The inspector interviewed the TMI-based industrial hygienist/safety specialist, who was on site for a weekly visit, regarding the industrial hygiene and worker safety programs. The inspector noted that an industrial hygienist made frequent periodic visits (biweekly) to evaluate asbestos monitoring activities and sampling data to assure that the asbestos enclosures maintained proper integrity, and to verify the acceptability of worker breathing zones.

Respirators and protective clothing for the asbestos removal are required. The protective equipment and clothing appeared appropriate and was properly used. Use of confinements to control the spread of airborne asbestos in reactor containment was good. The packaging and handling of radioactively contaminated asbestos was performed in accordance with the regulatory requirements.

Lighting and ventilation in work areas inside containment was good. Scaffolding, walking, and working surfaces were in good condition. Openings were guarded. GFCI protected electrical distribution panels were installed in the work areas to provide temporary power. Fire prevention measures were appropriate. The licensee has adopted the requirements of the Three Mile Island safety manual for use at the site.

c. Conclusions

Control of industrial hazards and toxic material was effective and well planned

07 Quality Assurance in Operations

07.1 Review and Audit and Design Change Functions

a. Inspection Scope

The inspector reviewed:

- the licensee's practice and planned use of Readiness Review Committees;
- the licensee's process of conducting 10 CFR 50.59 reviews; and,
- selected engineering changes in the facility that were made in accordance with the requirements of 10 CFR 50.59.

b. Observations and Findings

The Manager, Decontamination and Decommissioning Engineering (DD&E) described the process for the conduct of 10 CFR 50.59 reviews and provided documentation of completed reviews. Since the Engineering department is expected to coordinate and plan changes in the facility, as necessary to support decommissioning activities, the licensee expects to assign an engineering staff to the site to conduct evaluations as required by 10 CFR 50.59.

In review of this area, the inspector noted that the quality of the reviews completed so far were inconsistent. While some reviews clearly identified the change, documented the safety evaluation that was performed to support the change, described the licensing basis that applied, and the basis for the determination that no unreviewed safety question existed, other reviews failed to be supported by the same quality of effort and documentation. The inspector noted that the licensee's process was unclear and lacked specific guidance. The inspector described the NRC expectation for the quality of 10 CFR 50.59 evaluations, and noted that it was imperative that the licensee improve the process for performing 50.59 evaluations prior to executing significant decommissioning activities. In response, the licensee committed to improve the process by establishing, implementing and maintaining an effective procedure designed to assure consistency in acceptability, approach, and quality. The Manager, DD&E, stated that a policy and procedure would be developed that was modelled on the TMI process and incorporate industry group experiences and recommendations for decommissioning. This will be completed before the start of decommissioning at the Saxton Site. This matter will be reviewed in a future inspection (Inspector Followup Item 50-146/96-01-01).

As a matter of policy and common practice, the licensee's upper management establishes Readiness Review Committees to provide a multi-disciplinary review of major projects. The inspector reviewed records of activities and findings of various committees that were established by the licensee, and noted that the efforts appeared to be effective in the independent evaluation of safety performance of activities. While there is no formal requirement for these types of review, the Vice President SNEC (Saxton Nuclear Experimental Corporation) stated his intention to use Readiness Review Committees (RRC) for evaluation and assessment of major

evolutions, such as removal of the reactor pressure vessel. Accordingly, RRC hold points will be incorporated into the project schedules in order to accommodate RRC review activities. The inspector noted that the practice appeared to be a good initiative in independently verifying and validating the effectiveness of processes, procedures, and work practices.

c. Conclusions

While some efforts relative to performing safety evaluations in accordance with 10 CFR 50.59 were acceptable, the inconsistent quality of effort and supporting documentation gave evidence that the licensee's program is not sufficiently developed to support significant decommissioning activities.

R1 Radiological Protection

R1.1 Implementation of Revised 49 CFR Parts 100-179 and 10 CFR Part 71

a. Inspection Scope (Temporary Instruction 2515/133)

The inspector reviewed the following areas:

- Qualifications of the supervisor overseeing radioactive waste shipments;
- Training certifications of personnel involved in radioactive waste shipping activities;
- Shipping procedures; and,
- Implementation of SI units and revised A1/A2 values as required by the revised Department of Transportation regulations.

b. Observations and Findings

Interviews with the radioactive waste handling supervisor and review of applicable records indicated that he had extensive experience and was highly qualified. The computer program "RADMAN," used to classify shipments and prepare shipping documents, was determined to contain revised A1/A2 values, waste stream data based on site characterization studies, and the uniform manifest format required by the burial site.

The inspector reviewed the licensee preparations, documentation, and plans for a shipment of contaminated dirt and asbestos, scheduled to occur in about two weeks. The planning and preparation was well done and in accord with regulatory requirements.

c. Conclusions

Revised DOT and NRC transportation regulations were properly implemented.

R1.2 Radiation Protection Program

a. Inspection Scope

The inspector reviewed:

- Use of Radiation Work Permits,
- Protective clothing use,
- Personnel dosimetry and exposure records,
- Routine area and personnel exit surveys,
- ALARA Implementation,
- Pre-job Briefings, and
- HP Technician Job Coverage

b. Observations and Findings

Radiation area warning signs, postings, and barricades inside the containment were effective in identifying radiological hazards, controlling personnel access, and conveying information. HP technicians provided full time job coverage. Exit surveys for skin and clothing contamination were effectively accomplished by use of a sensitive, computerized, whole body scanner.

The inspector noted that the Radiation Work Permits were based on initial job radiation conditions and did not appear to be frequently updated. In followup in this area, the inspector determined that only the Group Radiological Control Supervisor (GRCS) is authorized to change a RWP; that comprehensive worker pre-job briefings are conducted by the GRCS using a standardized checklist that references important safety aspects of the job. The briefings typically include photographs of the jobsite, a detailed description of current radiological conditions, a discussion of the radiation protection requirements, and the ALARA methods and measures expected to be implemented. The GRCS stated that the practices and policies established by the radiation protection program were designed to accommodate the needs and requirements of a small work-force that may not have any extensive experience in working in radiologically controlled areas.

c. Conclusions

The radiation protection program was established, implemented, and maintained to meet the regulatory requirements in 10 CFR 20.

X.1 Exit Interview (Inspection Procedure 30703)

The inspector presented the inspection results to members of licensee management at the conclusion of the inspection on November 21, 1996. The licensee acknowledged the findings presented.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

Perry Caramel, Site Supervisor
 William Heysek, Licensing Department
 Joe Kuehn, Jr., Vice President SNEC
 Arthur Paynter, Radiation Safety Officer
 Rick Miller, Industrial Hygienist
 Sylvia Morris, Public Affairs
 Louis Shamanek, Assistant Site Supervisor
 Lawrence Simon, Radwaste Shipping Supervisor
 Galen Tomlinson, GRCS

Saxton Citizens Task Force

Charlie Barker, Task Force Member
 Roger Granlund, Independent Assessor (Penn. State RSO)

Commonwealth of Pennsylvania

Kenneth Singh, Bureau of Radiation Protection

INSPECTION PROCEDURES USED

IP 30703: ENTRANCE AND EXIT INTERVIEWS
 TI 2515/133: Implementation of Revised 49 CFR Parts 100-179 and 10 CFR
 Part 71

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-146/96-01-01 IFI Revise policy for conduct of 50.59 safety reviews

Closed

None

LIST OF ACRONYMS USED

ALARA	As Low As Reasonably Achievable
CFR	Code of Federal Regulations
DD&E	Decontamination and Decommissioning Engineering
DOT	Department of Transportation
GFCI	Ground fault circuit interrupter
GPU	General Public Utilities Corporation
GRCS	Group Radiological Controls Supervisor
I-H	industrial hygiene
IP	Inspection procedure
NRC	Nuclear Regulatory Commission
RWP	Radiation Work Permit
SI	International System
TMI	Three Mile Island power station
TS	Technical Specifications