U. S. NUCLEAR REGULATORY COMMISSION

Region I

Report No. 50-320/82-14

Docket No. 50-320

License No. DPR-73 Priority -- Category C

Licensee: GPU Nuclear Corporation

P.O. Box 480

Middletown, Pennsylvania 17057

Facility Name: Three Mile Island Nuclear Station, Unit 2

Inspection At: Middletown, Pennsylvania

Inspection Conducted: November 7 - December 6, 1982

Inspectors: Joel S. Wiebe — 12/17/82
J. Wiebe, Senior Resident Inspector (TMI-2) — date signed

R. Barr, Radiation Specialist — 12/17/82 — date signed

B. O'Neill, Radiation Specialist — 12/17/82 — date signed

L. Thonus, Resident Inspector (TMI-2) — 12/17/82 — date signed

Accompanied by:
R. Boyd, Radiation Specialist (Intern) — 12/17/82 — date signed

L. Gage, Senior Nuclear Engineer
TMI Program Office, NRR — 12-17-82 — date signed

J. Klevan, Consultant — 12-17-82 — date signed

Approved by:
A. Fasano, Chief, Three Mile Island-2 Projects
Section, Projects Branch No. 2 — 12/17/82 — date signed

Inspection Summary:

Inspection conducted on November 7 - December 6, 1982 (Inspection Report Number 50-320/82-14)
Areas Inspected: Routine safety inspection conducted by site inspectors of licensee action on NRC circulars and previous inspection findings; routine plant operations; routine health physics and environmental areas; reactor building entries; radioactive material shipments; and licensee event reports. The inspection involved 100 inspector-hours.
Results: No violations were identified.

DETAILS

1. Persons Contacted

General Public Utilities (GPU) Nuclear Corporation

*S. Chaplin, Licensing Engineer
*J. Chwastyk, Manager, Plant Operations
W. Conaway, Manager, Radwaste Support
J. Flanigan, Radiological Engineering Manager
J. Hildebrand, Manager, Radiological Controls
F. Linsenbach, Radiological Controls Technician
W. Marshall, Operations Engineer
J. Renshaw, Manager, Radiological Field Operations
*P. Ruhter, Manager, Radiological Technical Support
J. Simpson, Plant Engineering TMI-2

Bechtel Northern Corporation

R. Parsons, Engineer

Other licensee personnel were also interviewed.

*denotes those present at the exit interview.

2. Licensee Action on NRC Circulars and Previous Inspection Findings

(Closed) Circular (79-03): Packaging greater than Type A quantities of low specific activity (LSA) radioactive material for transport. The licensee has recognized the difference between Department of Transportation (DOT) requirements and NRC requirements regarding shipment of LSA material. The licensee uses a general license as authorized in 10 CFR 71.12. The licensee has registered as a user for the types of containers they use to make greater than Type A shipments.

(Closed) Unresolved Item (320/80-12-01): Revise auxiliary building ventilation technical specifications (TS) to clarify requirements. The licensee requested a revision to the TS in a letter dated July 7, 1982. The revision was issued in an NRC Amendment of Order dated September 24, 1982. The change clarified that the auxiliary and fuel handling building ventilation systems were not redundant to each other by separating their operability requirements.

(Closed) Unresolved Item (320/81-14-01): Licensee to revise Administrative Procedure (AP) 1013 to include 10 CFR 50.59 review requirements. The licensee's procedure change request (PCR) 2-81-1201 was approved and Revision 8 to AP 1013 became effective on February 16, 1982. Revision 8 requires that personnel performing temporary modifications (jumper, lifted leads, etc.) verify that a 10 CFR 50.59 review has been performed.

(Closed) Violation (320/81-15-06): Failure to perform monthly surveillance activities on reactor building (RB) purge interlock. The inspector reviewed the licensee surveillance test data for the period January through November 1982 and found that the surveillance had been performed within the required time period.

3. Routine Plant Operations

Inspections of the facility were conducted to assess compliance with general operating requirements of TS 6.8.1 in the following areas: licensee review of selected plant parameters for abnormal trends; plant status from a maintenance/modification viewpoint including plant cleanliness; licensee control of ongoing and special evolutions including control room personnel awareness of these evolutions; control of documents including log keeping practices; and area radiological controls.

Random inspections of the control room during regular and back shift hours were conducted at least three times per week. The selected sections of the shift foreman's log and control room operator's log were reviewed for the period November 7 - December 6, 1982. Selected sections of other control room daily logs were reviewed for the period from midnight of the day of review to the time of review. Inspections of areas outside the control room occurred on November 15, 23, 24 and December 3, 1982. Selected licensee planning meetings were observed.

No violations were identified.

4. Routine Health Physics and Environmental Review

a. Plant Tours

The NRC site radiation specialists completed routine plant inspection tours. These inspections included all radiation protection control points and selected radiologically controlled areas. Observations included:

-- Access control to radiologically controlled areas

-- Adherence to Radiation Work Permit (RWP) requirements

-- Proper use of respiratory protection equipment

-- Adherence to radiation protection procedures

-- Use of survey meters including personnel frisking techniques

-- Cleanliness and housekeeping conditions

-- Fire protection measures.

No violations were identified.

b. Measurement Verification

Measurements were independently made by the inspector to verify the quality of licensee performance in the following areas:

-- Radioactive material shipping

-- Radiation and contamination surveys

-- Onsite environmental air and water sampling and analyses.

No violations were identified.

5. Reactor Building Entries

a. The site staff monitored reactor building (RB) entries conducted during the inspection period to verify the following items on a sampling basis:

-- The RB entry was properly planned and coordinated for effective task implementation including adequate as low as is reasonably achievable (ALARA) review, personnel training, and equipment testing.

-- Proper radiological precautions were planned and implemented, including the use of a Radiation Work Permit (RWP).

-- Specific procedures were developed for unique tasks and were properly implemented.

No violations were identified.

b. The site staff reviewed selected documents, applicable procedures, and RWPs concerning these entries.

Entries 119 through 132 were conducted during this inspection period.

No violations were identified.

c. The three control rod drive leadscrews (removed during the Quick Look inspection and suspended from the service structure) were staged inside the "B" D-ring on November 10, 1982. Sample segments from leadscrew "8H" were cut and removed from the reactor building during entry 122 on November 15, 1982. Two nine-inch segments of leadscrew "8H" were shipped offsite for analysis on December 2, 1982. One segment was shipped to Babcock and Wilcox in Lynchburg, Virginia, and the other to Battelle Northwest, Richland Washington.

The two remaining leadscrews are scheduled to be cut and shipped offsite during January 1983. The NRC site radiation specialists are continuing to closely monitor all leadscrew work activities.

No violations were identified.

d. As part of the NRC evaluation of the plant fire hazards and fire protection, a reactor building entry, which included an NRC employee and a contractor, was made on December 2, 1982. The entry team traversed all levels of the reactor building except the highly contaminated basement, to observe the condition of fire hoses and fire extinguishers and possible fire hazards created by material and equipment that had been brought into the building.

No significant hazards or fire protection equipment deficiencies were identified.

6. Radioactive Material Shipments

a. The NRC site radiation specialists inspected radioactive material shipments during the inspection period to verify the items listed below.

-- Licensee had complied with approved packaging and shipping procedures.

-- Licensee had prepared shipping papers, which certified that the radioactive materials were properly classified, described, packaged, and marked for transport.

-- Licensee had applied warning labels to all packages and had placarded vehicles.

-- Licensee had controlled the radioactive contamination and dose rates below the regulatory limits.

Inspector review of this area consisted of (1) examination of shipping papers, procedures, packages, and vehicles, and (2) performance of radiation and contamination surveys of each shipment.

During this inspection period, twenty-one radioactive material shipments were made by the licensee.

No violations were identified.

b. EPICOR II Prefilter Shipments

The following prefilters were shipped from TMI to the Idaho National Engineering Laboratory (INEL) in Scoville, Idaho.

PF-20 on November 17, 1982
PF-47 on November 29, 1982
PF-27 on December 1, 1982
PF-48 on December 6, 1982

No violations were identified.

7. Licensee Event Reports

The inspector reviewed Licensee Event Reports (LERs) required to be submitted in accordance with Technical Specifications (TS) 6.9.1.8 and 6.9.1.9 (and NUREG 0161) to verify the following: Event and cause description clearly reported event information; the required LER form was properly completed; and adequate corrective action was specified.

Initial screening of these events was completed to determine generic applicability, need for additional site verification, and the necessity for additional NRC management review.

The below listed LERs were reviewed.

-- LER 82-11/01L-1, dated September 16, 1981, Revised information on filter bypassing

-- LER 82-30/03L-0, dated October 25, 1982, Low fuel oil level in diesel generator DF-X-1B day tank

-- LER 82-32/03L-0, dated November 11, 1982, EPICOR II effluent monitor inoperable - blown fuse on sample pump

No violations were identified.

8. Unresolved Items

Unresolved items are findings about which more information is needed to ascertain whether it is a violation, a deviation, or acceptable. Unresolved items are addressed in paragraph 2.

9. Exit Interview

On December 6, 1982, a meeting was held with licensee representatives (denoted in paragraph 1) to discuss the inspection scope and findings. Other NRC personnel, other than the reporting inspectors, present at the exit interview are noted below.

-- A. Fasano, Chief, Three Mile Island-2 Project Section