U.S. NUCLEAR REGULATORY COMMISSION
Region I

Report No. 50-219/81-15

Docket No. 50-219

License No. DPR-16 Priority -- Category C

Licensee: GPU Nuclear Corporation

100 Interpace Parkway

Parsippany, New Jersey 07054

Facility Name: Oyster Creek Nuclear Generating Station

Inspection at: Forked River, New Jersey

Inspection conducted: April 30-May 1, 1981

Inspectors: K E Plumlee 3/23/82
K. E. Plumlee, Radiation Specialist date signed

Approved by: P J Knapp 3/23/82
P. J. Knapp, Chief, Facility Radiological Protection Section, Technical Inspection Branch date signed

Inspection Summary:
Inspection on April 30-May 1, 1981 (Report No. 50-219/81-15)
Areas Inspected: Routine, unannounced inspection by a regional based inspector of licensee actions on NRC:IE Bulletin No. 80-10, "Contamination of Nonradioactive Systems and Resulting Potential for Unmonitored, Uncontrolled Release to Environment", including: the identification of interfaces between nonradioactive and radioactive systems; the sampling program to identify any occurrence of an unmonitored release path; any interim measurements or safety evaluations, necessary to use nonradioactive systems that have become radioactive; and any scheduled corrective actions. This inspection involved 10 inspector-hours onsite by one NRC regional based inspector.
Results: No items of noncompliance were identified.

Region I Form 12
(Rev. April 77)

DETAILS

1. Persons Contacted

G. Busch, Licensing Engineer
J. Carroll, Jr., Director, Station Operations
K. Fickeissen, Manager, Plant Engineering
S. Fuller, Supervisor, Site QA
R. Garner, Programs and Controls Director
B. Somers, Group Chemical Supervisor
J. Sullivan, Unit Superintendent
D. Turner, Manager, Radiation Control

2. Review of Licensee Action on Bulletin 80-10

a. Bulletin 80-10 required the following licensee actions within 45 days of the date of the Bulletin:

(1) Identification of systems that are considered nonradioactive, or are described as nonradioactive in the FSAR, but could possibly become radioactive through interfaces with radioactive systems;

(2) Establishment of a routine sampling/analysis or monitoring program to promptly identify any contaminating events in the above systems which could lead to a subsequent unmonitored or uncontrolled liquid or gaseous release;

(3) Restriction of the use of any such systems that is or becomes contaminated, until the cause has been identified and corrected and the system has been decontaminated; or if the system operation is necessary before these actions are completed, prompt evaluation of the safety of operation in accordance with the requirements of 10 CFR 50.59; and,

(4) Assurance that any such operation is in compliance with 10 CFR 20.201, General Design Criterion 64 of Appendix A to 10 CFR 50, Appendix I to 10 CFR 50, and the facility's technical specifications.

b. Required Notification and Documentation

Bulletin 80-10 required, within an additional 15 days of the 45 day action date, a licensee letter notifying the Director of the NRC Region I office of the completion of the required actions and the availability of documentation for onsite review of the specifications taken to comply with the Bulletin.

c. Inspection of Documents

The inspector reviewed copies of the following documents maintained pursuant to Bulletin 80-10:

Title or Subject of Document	Document Date	Due Date
Notification to Director, NRC Region I	7/1/80*	7/5/80
S&W** Task No. 018***	6/17/80	6/20/80
PD-3.8.020, "Sampling Schedule"	5/8/80	6/20/80
S&W Safety Evaluation Auxiliary Boiler	7/17/80	N/A
JCPL Safety Evaluation RBCCW	8/4/80	N/A
JCPL Safety Evaluation RWCCW	8/4/80	N/A
JCPL Safety Evaluation Auxiliary Boiler	8/4/80	N/A

Reviews of these documents verified that the licensee had provided the required information.

d. Summary of Licensee Systems and Actions

The above referenced S&W Report, dated 6/17/80, reviewed the following systems and recommended the additional actions, shown below to comply with the requirements of Bulletin 80-10.

	Present Status		
Nonradioactive System	Radiation Monitor	Sample Program	Additional Action Required
Emergency Service Water	Yes	No	None
Service Water	Yes	No	None

* Received by NRC on July 5, 1980.
** "S&W" refers to Stone & Webster Engineering Corporation.
*** Consultant's report on identified systems and interfaces.

Nonradioactive System	Present Status: Radiation Monitor	Present Status: Sample Program	Additional Action Required
Circulating Water	No	No	None
Chlorination	No	No	None
Vacuum Priming	No	No	None
Well & Domestic Water	No	Yes	None
Dilution System	No	No	None
Fire Protection	No	No	None
Makeup Water	No	Yes	None
TBCCW	No	Yes	None
RBCCW	Yes	Yes	Relocate Monitor
Nitrogen Inerting, Purge & MU	No	No	None
Inst. Service & Breathing Air	No	No	Sample Program
Sewage Treatment	No	No	None
Auxiliary Boilers	No	Yes	Sample/Monitor Exhaust
Oil Transfer & Purification	No	Yes	None
Stator Cooling	No	No	None
Liquid Poison	No	No	None
Isolation Condenser	Yes	Yes	None
Turbine Oil	No	Yes	None
Rx Building Ventilation	Yes	No	None
Turbine Building Ventilation	No	No	None
Machine Shop Ventilation	No	No	Sample and/or Monitor
Office Building Ventilation	No	No	None
Radwaste Closed Cooling Water	No	Yes	None
Screen Wash	No	No	None
Feed Pump Room Ventilation	No	No	Install Monitor
Sump 1-5	No	No	Sample and/or Monitor

The S&W Report indicated that drawings for several systems should be updated to as-built status to assure that flow from one system to another can be properly traced. These systems are:

Floor and Equipment drain
Sewage treatment
Sumps
Makeup water demineralizer

The report also stated that an administrative procedure should be prepared to control the use of temporary hose and/or piping in the plant.

The licensee representative stated during the exit interview that monitoring or sampling will be implemented in the sanitary sewer discharge line and in the 30-inch diameter header that presently receives treated sanitary sewage liquid effluent, nonradioactive equipment drainage, and roof and yard drainage.

On or about July 1, 1981, the licensee planned to commence discharging raw sanitary sewage into an offsite publicly-owned sanitary sewage and treatment system. At the time of this inspection, the onsite treatment system remained in service. No existing interface was identified with any radioactive system, however, the possibility of misuse was considered sufficient to justify discharge monitoring or sampling.

The equipment drainage into the 30-inch header was monitored but other in-flow was not monitored. Specific examples were documented in Report No. 50-219/81-09, Paragraph 9, involving radioactive liquid leakage that was not entirely collected in the radioactive liquid waste system. These examples demonstrated a potential to leak into the 30-inch header and to the discharge canal.

The in-flow to the 30-inch header was being sampled periodically at a point which did not include the treated sewage effluent, roof, and yard drainage. The review of this system may result in the selection of a new sample point.

The implementation of sampling of the sewage and of the 30-inch header discharge will be followed up on a subsequent inspection. (219/81-15-01)

The inspector reviewed the applicable sections of the FSAR and plant drawings. The consultants (S&W) drawing file was not reviewed inasmuch as it was maintained in Cherry Hill, New Jersey.

Within the scope of this inspection, no omissions of required actions were identified.

e. Review of Licensee Sampling Program

The licensee reported the following liquid sample analyses obtained during March or April, 1981.

System	Identified Isotopes (uCi/ml)
Emergency	NDA*
Service Water	NDA
Well & Domestic Water	NDA
Makeup Water	NDA

*NDA - No detectable reactor activation or fission products.

System	Identified Isotopes (uCi/ml)	
Turbine Building Closed Cooling Water (TBCCW)	H-3	3.96 E-6
	Cs-137	2.56 E-6
	Co-60	2.40 E-6
Reactor Building Closed Cooling Water (RBCCW)	H-3	8.63 E-6
	Xe-133	9.98 E-6
	Xe-135	8.08 E-6
	Co-60	6.13 E-6
	I-133	4.61 E-6
	Cs-137	1.33 E-6
Auxiliary Boilers	Cs-137	9.21 E-7
Isolation Condensers	H-3	3.71 E-4
Augmented Offgas Building Closed Cooling Water (AOGCCW)	H-3	1.65 E-6
	Co-60	2.05 E-6
	Mn-54	6.12 E-7
New Radwaste Building Closed Cooling Water (RWCCW)	H-3	7.72 E-7
	Co-60	8.68 E-6

The inspector noted that the sample analysis for RBCCW, but for no other system, exceeded the 10 CFR 20, Appendix B, limit for release to unrestricted areas. None of the analyses exceeded the values used in the safety evaluations. Specifically, the evaluations showed the accidental discharge of the water contained in the RBCCW would not exceed the accidental release of liquid radioactive material evaluated in the Technical Specifications Bases. The S&W report indicated that the RBCCW monitor sensitivity is adequate to identify increases in RBCCW contamination. Any significant increase in the concentration of radioactive materials in the RBCCW will be reviewed by the licensee. In addition to the gaseous sampling program described in the table in paragraph 2.d above, air sampling was being conducted throughout the facility during the inspection in order to control working hazards during the outage. The inspector observed that no releases to the environment exceeded the 10 CFR 20, Appendix B, limit for release to unrestricted areas.

The inspector reviewed the indications on the ventilation system monitors.

No omissions of required sampling were identified. No items of noncompliance were identified.

5. Exit Interview

The inspector met with the individuals listed in paragraph 1 at the completion of the inspection on May 1, 1981. The inspector reviewed the inspection findings. The licensee representative committed to either periodically sample or monitor the sanitary sewer and the 30-inch diameter drain header.