



**GPU Nuclear**

P.O. Box 388  
Forked River, New Jersey 08731  
609-693-6000  
Writer's Direct Dial Number:

February 15, 1983

Mr. Thomas T. Martin, Director  
Division of Engineering and Technical Programs  
U.S. Nuclear Regulatory Commission  
Region I  
631 Park Avenue  
King of Prussia, PA 19406

Dear Mr. Martin:

Subject: Oyster Creek Nuclear Generating Station  
Docket No. 50-219  
IE Inspection 50-219/82-24

This letter is submitted in response to your letter of January 12, 1983, regarding the findings of the September 27-30 and October 5-8, 1982 inspection by Mr. J.J. Kottan of your staff.

In accordance with 10 CFR 2.201, the attachment to this letter represents our response to the violations. If there are any questions regarding the supplied information, please contact me or Mr. Michael Laggart of my staff at (609) 971-4643.

Very truly yours,

Peter B. Fiedler  
Vice President and Director  
Oyster Creek

PBF:jal

cc: Mr. Ronald C. Haynes, Administrator  
U.S. Nuclear Regulatory Commission  
Region I  
631 Park Avenue  
King of Prussia, PA 19406

NRC Resident Inspector  
Oyster Creek Nuclear Generating Station  
Forked River, NJ 08731

8304110638 830329  
PDR ADOCK 05000219  
Q PDR

## Attachment

### Violation A:

10 CFR 20.201(b) requires that each licensee shall make or cause to be made such surveys as may be necessary to comply with the regulations in this part. 10 CFR 20.021(a) defines "survey" as an evaluation which includes the measurements of concentrations of radioactive materials.

Contrary to the above, for the period March 25, 1982, through September 30, 1982, inadequate gamma spectroscopy measurements of effluent samples were made in that the measurements were made using improper efficiency values for your gamma spectroscopy system.

### Response:

A systematic review of all calibrations and data has been implemented by the Chemistry Department. National Bureau of Standards traceable sources were ordered and received for all chemistry counting geometries to insure proper efficiencies. A new multi-channel analyzer is now on site and scheduled to be in operation by March 1983.

Full compliance is expected by April 1983, incorporating the use of the new analyzer. In the interim, management controls now insure that proper efficiencies are in use.

### Violation B:

Section 6.8.1 of the Technical Specifications requires that written procedures shall be established, implemented, and maintained that meet or exceed the requirements of ANSI N18.7-1972 and Appendix A Regulatory Guide 1.33-1972. ANSI N18.7-1972 and Appendix A of Regulatory Guide 1.33-1972 requires procedures for control of measuring and test equipment, including laboratory equipment; and chemical and radiochemical control procedures including validity of calibration techniques and adequacy of analyses.

1. Procedure 807.6, "QA Analyses by Contractor Laboratories", written pursuant to the requirements of Section 6.8.1 of the Technical Specifications, requires that ten percent of the samples sent to the contractor laboratory be split, spiked or standard samples.

Contrary to the above, Procedure 807.6 was not implemented in that split, spiked or standard samples were not sent to the contractor laboratory as required for the period October, 1981 to October, 1982.

Response B-1:

As part of the new Analytical Laboratory Quality Control Program (ALQCP), spiked, split, blind and/or standard samples will be sent to (or received from) QA approved contractor laboratories on a regular basis, at a frequency that will both satisfy 807.6 and provide acceptable quality assurance.

Full compliance with 807.6 is expected by March 1, 1983.

As part of the new Analytical Laboratory Quality Control Program, Procedure 807.6 is being rewritten to provide clear and complete instruction in how its objectives are to be met. Items to be covered in the rewritten procedure will include, but not be limited to the following:

- a. a detailed procedure for preparing a split sample.
  - b. the source of the material (radioactive and non-radioactive) to be used as a spike.
  - c. the person having direct responsibility for preparing the samples.
  - d. the frequency; or number of spiked, split or standard samples that each specific approved contractor laboratory will receive.
  - e. the parameters to be tested and their frequency of testing on a monthly, quarterly or annual basis.
  - f. Appropriate documentation, record keeping, and provision for the review of results by supervisory personnel. The estimated completion date for rewriting 807.6 is May 1, 1983.
2. Procedure 807.7, "Laboratory QA and QC - Standard, Spiked, and Blind Samples", written pursuant to the requirements of Section 6.8.1 of the Technical Specifications, requires that standard, spiked, and blind samples be prepared at a frequency determined by the Chemical Supervisor.

Contrary to the above, Procedure 807.7 was not implemented in that standard, spiked and blind samples were not prepared for the period October 1981 to October 1982.

Response B-2:

The response for Violation B.1 is also appropriate for Violation B.2.

3. Procedure 807.9, "Laboratory QA and QC - Control of Analytical Performance", written pursuant to the requirements of Section 6.8.1 of the Technical Specifications, requires that precision and accuracy determinations be performed on at least ten percent of the samples.

Contrary to the above, Procedure 807.9 was not implemented in that precision and accuracy determinations were not performed as required for the period October 1981 to October 1982.

#### Response B-3

Currently there are no Plant generated data available on the precision and/or accuracy of any of the methods in use. However, many of the methods in use were taken from ASTRA standards for which precision and accuracy statements are generally available.

As part of the new Analytical Quality Program, Procedure 807.9 will be rewritten to provide clear and complete instructions in how its objectives are to be met. Items to be covered in the rewritten procedure will include, but not be limited to the following:

- a. a schedule for each method and each analyst for duplicate analyses.
- b. a schedule for each method and each analyst for performing spiked sample analysis
- c. detailed procedures for Chemistry supervisory personnel to use in preparing spiked, split or standard samples, as outlined under the response for Violation B.1.

Due to the large amount of time required to determine precision and accuracy data for each analytical method routinely used in the OCNS laboratories, the expected completion date for this phase of the Analytical Laboratory Quality Control Program is January 1, 1984. However, those methods most critical to the safe operation of the Plant will be evaluated first and work will commence March 1, 1983.

4. Procedure 807.1, "Laboratory QA and QC - General Scope", written pursuant to the requirements of Section 6.8.1 of the Technical Specifications, requires that all duplicate samples results be reviewed by supervisory personnel.

Contrary to the above, Procedure 807.1 was not implemented in that twenty-one (21) percent of the duplicate sample results were not reviewed by supervisory personnel as required.

Response B-4:

As part of the new Analytical Quality Control Program under development, Procedure 807.1 will be deleted, since it is redundant and too general to be of value in either day-to-day operations or procedural or operational planning. However, the requirement of analytical results review by Chemistry supervisory personnel will be incorporated into the new program in a clear and workable manner.

Currently, all analytical results are reviewed by the Group Chemical Supervisor, Lead Chemist and Manager Plant Chemistry.

5. Procedure 908.2, "Calibration of the Beckman LS100 Liquid Scintillation Counter", written pursuant to the requirements of Section 6.8.1 of the Technical Specifications, requires that the liquid scintillation counter be calibrated on an annual basis.

Contrary to the above, Procedure 809.2 was not implemented in that the liquid scintillation counter was not calibrated as required for the period January 1981 to October 1982.

Response B-5:

Previous calibrations of the Beckman LS100 Liquid Scintillation Counter were done by the manufacturer. NBS traceable sources have been ordered to allow calibration to be conducted by on-site personnel. This will be implemented immediately following receipt of the standards.

Full compliance is expected by April 1983.

6. Procedure 809.3, "Calibration of the Beckman Widebeta Counting System", written pursuant to the requirements of Section 6.8.1 of the Technical Specifications, requires that full scale plateau and efficiency checks be performed following repairs.

Contrary to the above, Procedure 809.3 was not implemented in that full scale plateau and efficiency checks were not performed following repairs made during the period October 1981 to October 1982.

Response B-6:

Calibrations of the Beckman Widebeta Counting System were performed by the manufacturer. To insure that the required full scale plateau and efficiency checks are performed, NBS traceable sources have been ordered.

Capability for in-house calibration is expected by April 1983.



7. Procedure 809.5, "Calibration of TN 11 Multi-channel Analyzer", written pursuant to the requirements of Section 6.8.1 of the Technical Specifications, requires that corrective action be taken when the ratio of the observed activity to the actual activity in the daily standard exceeds 1.10.

Contrary to the above, Procedure 809.5 was not implemented in that for the period March 25, 1982 to September 30, 1982, corrective action was not taken as required when the ratio of the observed activity to the actual activity in the daily standard exceeded 1.10.

Response B-7:

The use of a single count room technician and a count room log book has been initiated. The Chemistry technicians have been instructed to log the efficiency check each day. If any deviations outside the normal limits are noted, these will be brought immediately to the attention of the Chemistry Management.

To insure full compliance, this log is now reviewed on a daily basis by the Group Chemical Supervisor.

To effect improvements in Chemistry Management control, the Chemistry function was transferred from Engineering to Operations on May 12, 1982. The purpose for this reorganization was two fold: one, to remove Chemistry from its peripheral position as an engineering support element and integrate it into the management envelope necessary for direct, effective and efficient support of Plant operations; two, subsequent to this functional realignment, institute and implement an effective management control system for the implementation of the Oyster Creek Chemistry Control Program.

Initial results of this endeavor have manifested themselves in a number of changes. A "Conduct of Chemistry Operations" procedure developed and implemented on September 23, 1982, provides general rules and instructions pertaining to the implementation of the Oyster Creek Chemistry Control Program.

To further enhance department administration and bolster effectiveness, additional chemistry expertise was obtained as evidenced by the employment of a Manager Plant Chemistry. The incumbent's credentials include 15 years of chemistry related nuclear power plant experience. Also, a Lead Chemist position and a second Chemistry supervisory position have been created and filled as supplementary actions to further improve management control.

In addition, the Chemistry Department's working routine has been modified to include closer management oversight through daily management review of test, sampling and trended data and weekly management first-line supervision staff meetings. Furthermore, a Chemistry Data Trending Program has been instituted and the large backlog of outstanding chemistry deficiencies (turned over to Operations during the reorganization) has been addressed. Currently, the majority of these findings have been resolved and the backlog virtually eliminated.

Furthermore, a material and equipment upgrading program is in progress. Construction of a new Chemistry Laboratory is scheduled to commence during the second quarter of 1983. New state-of-the-art equipment has been purchased or placed on order to replace all existing sampling and testing laboratory components. This project is expected to be completed during December 1983.

Also, with the support of our Technical Functions Division, a program to completely rewrite all of the Chemistry Procedures is being implemented and in conjunction with this rewrite, the aforementioned Analytical Laboratory Quality Control Program (ALQCP) is now in the process of being developed. This program involves the review and consolidation of existing quality assurance related chemistry procedures into a single, concise and workable document. The completion date for this program and the chemistry procedures rewrite is September 1983.

The aforementioned is a general description of those actions taken and planned to improve the implementation of management control for Oyster Creek Operations.

Violation C:

Section 6.8.1 of the Technical Specifications requires that written procedures shall be established, implemented, and maintained that meet or exceed the requirements of ANSI N 18.7-1972 and Appendix A of Regulatory Guide 1.33-1972. Section 6.8.2 of the Technical Specifications requires that the procedures of Section 6.8.1 shall be reviewed by the Plant Operations Review Committee and approved by the Director, Station Operations prior to implementation. ANSI N18.7-1972 and Appendix A Regulatory Guide 1.33-1972 include procedures used for effluent sample analyses.

Contrary to the above, the procedures used by a vendor laboratory for performing strontium and tritium analyses of effluent samples, and the procedures used by a contractor on site for calibrating the Ge(Li) detector, which is used for analyzing effluent samples, were not reviewed and approved as required for the period October 1, 1981 to October 1, 1982.

Response C:

The violation as stated above is denied by GPU Nuclear.

Section 6.8.1 of the Technical Specifications requires that written procedures shall be established, implemented, and maintained that meet or exceed the requirements of ANSI N 18.7-1972 and Appendix A of Regulatory Guide 1.33-1972. ANSI N 18.7-1972 states that "it is intended that this standard be used in conjunction with American National Standard N45.2-1971 Quality Assurance Program Requirements for Nuclear Power Plants." ANSI N 18.7-1972 also states that "this standard incorporates flexibility that provides for compliance by any organization. No single approach to administrative controls is prescribed; rather, several ways to meet the criteria are presented. The controls selected shall be those preferred by the operating organization."

GPU Nuclear Corporation establishes control over those procedures written in accordance with ANSI N 18.7-1972 and Appendix A of Regulatory Guide 1.33-1972 in two ways. The first addresses those procedures directly used by plant personnel or contractors working under our procedural program. The intent of Section 6.8.2 of the Technical Specification is to establish the review and approval procedure as outlined in Section 5.4 of ANSI N 18.7-1972 for these types of procedures.

The second addresses those procedures used by vendors contracted for support services as outlined in the procurement document in accordance with ANSI N 45.2.13. These procedures are controlled through the GPU Nuclear Corporation Quality Assurance Plan which evaluates and qualifies these vendors to ensure that the QA programs and procedures used by the vendors are "consistent with regulatory requirements" and that "procedures and instructions are implemented." This qualification process is intended to meet the review and approval process of Section 5.4 of ANSI N 18.7-1972 for these outside vendor procedures.

The vendor laboratory referenced in the violation has informed us by letter that they consider their procedures as proprietary. Their detailed procedures are however, available for audit and review. The vendor was surveyed by GPU Nuclear on April 28, 1980, reevaluated in 1981, and again reevaluated September 21, 1982. They were determined to be qualified to perform activities involving radiological and chemical analysis of both liquids and gases. In addition the vendor has informed us that the Low-Level Waste Branch in the Licensing Division of NRC has reviewed and approved the analysis procedures. The vendor continues to perform strontium and tritium analyses of effluent samples but the calibrating of the Ge(Li) detector is now performed by GPUN personnel using PORC approved procedures.

The controls of procedures established by GPU Nuclear Corporation are "those preferred by the operating organization" and meet the intent of the Technical Specifications, ANSI N 18.7-1972 and Regulatory Guide 1.33-1972 for establishing, reviewing, and approving of procedures.

#### Violation D:

Section 6.8.1 of the Technical Specifications requires that written procedures shall be established, implemented, and maintained that meet or exceed the requirements of ANSI N18.7-1972 and Appendix A of Regulatory Guide 1.33-1972. ANSI N18.7 and Appendix A of Regulatory Guide 1.33-1972 require procedures for control of radioactivity. Section 6.8.2 of the Technical Specifications requires that the procedures of Section 6.8.1 shall be reviewed by the Plant Operations Review Committee and approved by the Director, Station Operations prior to implementation.

Contrary to the above, the procedures used for operation and calibration for the health physics gamma spectrometer until October 8, 1982 were not reviewed and approved prior to implementation as required.



Response D:

At the time of the inspection the subject procedures were awaiting Plant Operations Review Committee (PORC) approval. As identified in the inspection on October 7, 1982, procedures 910.45, 910.46, and 910.47 were reviewed and approved by the PORC. Full compliance was achieved on October 18, 1982 upon issuance of the procedures for use.