



GPU Nuclear Corporation
Post Office Box 480
Route 441 South
Middletown, Pennsylvania 17057-0191
717 944-7621
TELEX 84-2386
Writer's Direct Dial Number:

December 19, 1983
5211-83-372

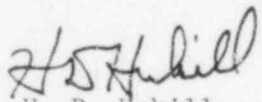
Dr. Thomas E. Murley
Region I, Regional Administrator
U. S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Dear Sir:

Three Mile Island Nuclear Station, Unit 1 (TMI-1)
Operating License No. DPR-50
Docket No. 50-289
Inspection Report No. 83-28
Notice of Violation Response

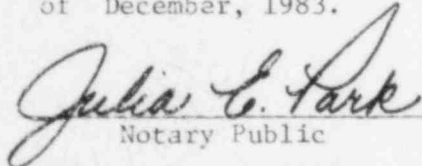
Attachment A to this letter is the GPUN response to Appendix A of Inspection Report 50-289/83-28 "Notice of Violation".

Sincerely,


H. D. Hukill
Director, TMI-1

HDH:RAS:vjf
Attachment
cc: R. Conte

Sworn and Subscribed to
Before me this 19th day
of December, 1983.


Notary Public

JULIA E. PARK, Notary Public
Middletown, Dauphin County, Pa.
My Commission Expires Nov. 3, 1985

8402070175 840126
PDR ADOCK 05000289
Q PDR

ATTACHMENT A

NRC Inspection No. 50-289/83-28-01

FINDING:

- A. Section 6.8.1 of the Technical Specifications requires that written procedures important to safety shall be established, implemented and maintained covering the items referenced below. Item 6.8.1.i which is referenced by Section 6.8.1 requires a Quality Assurance Program for effluent monitoring using the guidance in Regulatory Guide 4.15.

Contrary to the above, as of October 21, 1983, written procedures were not established, implemented, and maintained for a Quality Assurance Program for effluent monitoring using the guidance in Regulatory Guide 4.15.

This is a Severity Level V Violation (Supplement I).

RESPONSE:

I. Corrective Steps Taken and Results Achieved

Radiological Controls Procedure 1627 has existed as the quality assurance procedure for effluent monitoring. The following items are contained in RCP 1627.

1. Intra-laboratory blind duplicate sampling and analysis, for analyses that can be performed onsite.
2. ON/OFFSITE interlaboratory blind duplicate sampling and analysis, for analyses that can be performed onsite
3. OFFSITE Intra-laboratory blind duplicates for Strontium-89 and Strontium-90.

The vendor contracted for offsite analyses also performs a Quality Assurance Program for compliance with Regulatory Guide 4.15 and is audited by GPUNC for compliance with Regulatory Guide 4.15.

II. Corrective Steps Which Have Been Taken to Avoid Further Violations

A review has been performed comparing RCP 1627 to the guidance in Regulatory Guide 4.15. To meet the guidance of Regulatory Guide 4.15, RCP 1627 will be revised to include sample comparisons not previously addressed. Another offsite laboratory will be used for interlaboratory sample comparisons for analyses that cannot be performed onsite (i.e., P-32, Fe-55, Sr-89 and Sr-90) in accordance with Regulatory Guide 4.15.

III. Date When Full Compliance Will Be Achieved

Revised RCP 1627 will be implemented by April 1984. Additional offsite laboratory analyses for sample comparisons will be achieved by July, 1984.

FINDING

- B. Section 4.22.1.1 of the Technical Specification requires that prior to release of each batch of liquid waste a sample shall be taken from that batch and analyzed for the radioactivity content in accordance with Table 4.22-1. Table 4.22-1 requires that a sample of each batch of liquid waste be analyzed for not only principal gamma emitters but also other gamma emitters that are measurable and identifiable to a detectable concentration of $5E-7$ microcurie per milliliter ($\mu\text{Ci/ml}$).

Contrary to the above, a liquid waste sample (Liquid Release Permit Number 6-83-L) was not analyzed for Silver-110m and Antimony-125, although significant gamma energy peaks from these isotopes were present in concentration greater than $5E-7$ $\mu\text{Ci/ml}$.

This is a Severity Level IV Violation (Supplement I).

RESPONSE:

I. Corrective Steps Taken and Results Achieved

These samples were analyzed for Ag-110m and Sb-125, but in the review process on the gamma scan results these particular peaks were not properly distinguished as energy peaks associated with Ag-110m and Sb-125. The particular liquid release cited has been corrected to include Ag-110m and Sb-125 as positively identified nuclides in release number 6-83-L. All records have been updated to include the nuclides not previously identified in the release.

II. Corrective Steps Which Have Been Taken to Avoid Further Violations

The new Radionuclide Identification and Quantitative Measurement System (RIQMS) recently purchased is a gamma spectrometry unit which provides qualitative and quantitative analysis of gamma spectra. The new system provides output which automatically flags any unidentified peaks. This function was previously done manually. Technicians and Foremen have been and will continue to be formally trained on the new system.

III. Date When Full Compliance Will Be Achieved

All 1983, 1982 and 1981 liquid releases will be audited for similar occurrences. Any similar problems identified with liquid permits will be corrected by January 15, 1984. Any corrections to liquid release permits will be evaluated for subsequent revisions to the appropriate Semi-Annual Report. This will be accomplished by April, 1984.

FINDING

- C. Section 4.22.1.1 of the Technical Specifications requires that the radioactivity concentration of liquids discharged from continuous release points shall be determined by collection and analysis of samples in accordance with Table 4.22-1. Table 4.22-1 requires that the quarterly composite sample be analyzed for Phosphorous-32. Contrary to the above, the 1st quarter of 1983 liquid composite sample was not analyzed for Phosphorous-32.

This is Severity Level IV Violation (Supplement I).

RESPONSE:

I. Corrective Steps Taken and Results Achieved

The RM-1.7 quarterly composite, 1st quarter 1983, sample analysis for P-32 was omitted because it was not requested specifically on the "OFFSITE RADIOANALYSIS FORM". The form was preprinted and listed all Tech. Spec. required analyses except P-32. For this particular sample P-32 was not entered manually. The offsite vendor was contacted to determine if the sample could be re-analyzed for P-32. The sample could not be reanalyzed to produce meaningful data due to P-32's short half-life (8 days). The "OFFSITE RADIOANALYSIS FORM" has been revised to include all Tech. Spec. required analyses (including P-32). Past monthly results of P-32 for the same required sample were reviewed. After reviewing past results from January 1982 to September 1983, it was found that there was no positive activity detected for P-32, and all results were less than $1E-6$ uCi/ml (required LLD from Tech. Specs.) Therefore, no positive activity will be assigned for P-32 analyses not performed.

II. Corrective Steps Which Have Been Taken to Avoid Further Violations

A copy of this inspection finding along with the corrective actions will be routed to all Group Radiological Controls Supervisors to make them aware of the potential consequences involved with the omission of Tech. Spec. samples or analyses. The offsite vendor under contract will again be made aware of the required analyses for specific samples that are sent to them.

III. Date When Full Compliance Will Be Achieved

Full compliance will be achieved by January 15, 1984.

FINDING

- D. Section 4.22.1.1 of the Technical Specifications requires that post release analysis of samples composited from batch releases shall be performed in accordance with Table 4.22-1. Table 4.22-1 lists the required lower limit of detection for various analyses.

Contrary to the above, analytical results of Strontium-89 for February, March, and May, 1983 samples and gross alpha for March 1983 sample did not meet the required lower limit of detections.

This is a Severity Level V Violation (Supplement I).

RESPONSE:

I. Corrective Steps Taken and Results Achieved

Reference to March 1983 WECST composite sample not meeting gross alpha lower limit of detection cannot be verified by plant staff. Vendor sample #46847 for the WECST composite sample shows a value of $<5E-8$ uCi/ml for gross alpha. Tech. Spec. LLD limit is $1E-7$ uCi/ml. Also for March 1983 WECST composite sample (vendor #46847) results indicated less than $4E-8$ uCi/ml for Sr-89. Tech. Spec. limits $5E-8$ uCi/ml. In either case the LLD limit in Tech. Specs. was met for the March 1983 WECST composite sample.

Analytical results for February and May 1983 did not meet the required lower limit of detection.

Vendor procedures used to analyze our Tech. Spec. Samples were re-evaluated to determine what changes may be necessary to alleviate the above problem. In reviewing the procedures several items were identified that could cause the LLD limit to not be met.

II. Corrective Steps Which Have Been Taken to Avoid Further Violations

Vendor procedures used to analyze our Tech. Spec. samples will be revised to ensure meeting required sensitivities.

III. Date When Full Compliance Will Be Achieved

Vendor procedures will be revised by March 15, 1984.