

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-382/85-32

License: NPF-38

Docket: 50-382

Licensee: Louisiana Power and Light Company (LP&L)
142 Delaronde Street
New Orleans, Louisiana 70174

Facility Name: Waterford Steam Electric Station, Unit 3 (Wat-3)

Inspection At: Taft, St. Charles Parish, Louisiana

Inspection Conducted: December 9-13, 1985

Inspectors:

For Blaine Murray
J. Blair Nicholas, Senior Radiation
Specialist, Facilities Radiological
Protection Section

1/9/86
Date

For Blaine Murray
Russell Wise, Radiation Specialist
Facilities Radiological Protection
Section

1/9/86
Date

Approved:

Blaine Murray
Blaine Murray, Chief, Facilities
Radiological Protection Section

1/9/86
Date

Inspection Summary

Inspection Conducted December 9-13, 1985 (Report 50-382/85-32)

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Areas Inspected: Routine, announced inspection of the licensee's chemistry/radiochemistry program including review of corporate and onsite organizations and management controls, staffing and staff qualifications, training program, chemistry/radiochemistry program, facilities and equipment, post-accident sampling system (PASS), quality assurance (QA) program of chemistry/radiochemistry activities, quality control of analytical measurements, and radiochemistry confirmatory measurements. The inspection involved 74 inspector-hours onsite by two NRC inspectors.

Results: Within the areas inspected, no violations or deviations were identified.

DETAILS

1. Persons Contacted

LP&L

- *N. S. Carns, Assistant Plant Manager
- *D. E. Adams, Chemistry/Radiochemistry Unit Coordinator-Nuclear Support
- *R. E. Allen, Chemistry Engineer
- C. R. Booth, Chemist
- G. L. Dolese, Radiochemistry Supervisor
- C. B. Hawkins, Radiochemist
- *R. W. Kenning, Radiation Protection Superintendent
- M. L. Layton, Secondary Chemistry Supervisor
- *J. V. Messina, QA Representative-Operations
- W. M. Morgan, QA Manager-Vendor
- J. M. O'Hern, Technical Training Superintendent
- *T. C. Payne, Instruments and Controls Assistant Superintendent
- *P. V. Prasankumar, Technical Support Superintendent
- *B. P. Rocco, Effluent and Environmental Coordinator
- *J. J. Zabritski, Quality Engineering Manager

Others

- *J. G. Luehman, NRC Senior Resident Inspector

*Denotes those present during the exit briefing on December 12, 1985.

The NRC inspectors also interviewed several other Wat-3 employees during the inspection.

2. Licensee Action on Previous Inspection Findings

(Closed) Violation (382/8517-02): Failure to Establish Sampling Procedure - This violation involved the licensee's failure to establish an approved alternate sampling procedure to sample waste gas decay tanks when the designated sample points on the gas analyzer are out-of-service. The NRC inspectors reviewed the licensee's corrective actions including change 1 to Revision 2 of Chemistry Procedure CE-03-305, dated May 15, 1985, and found the corrective actions satisfactory. This violation is considered closed.

(Closed) Open Item (382/8517-01): Chemistry/Radiochemistry Technician Qualification Training - This item involved the incompleteness and unsatisfactory handling of the chemistry/radiochemistry technician qualification training documentation for initial qualification and 1984 requalification. The NRC inspectors reviewed the licensee's corrective

actions and found that the 1984 and 1985 chemistry/radiochemistry technician requalification training documentation had been completed and the records had been transmitted to the nuclear training department for permanent retention. The chemistry/radiochemistry technicians' initial qualification records had been completed and were being transmitted to the nuclear training department for permanent retention. This item is considered closed.

(Closed) Open Item (382/8517-03): Airborne Releases During Reactor Coolant Sampling - This item involved the release of radioactive gases into the primary sampling area and surrounding area in the primary chemistry laboratory during the collection of the reactor coolant samples. The NRC inspectors reviewed and verified the licensee's corrective actions including the welding of mechanical connections used on the piping in the reactor coolant sample panel and the installation of additional ventilation inside the sample panel hood. The licensee's corrective actions were found to be adequate. This item is considered closed.

(Closed) Open Item (382/8517-04): Radiochemistry Confirmatory Measurements - This item involved the low percent agreement of radiochemistry confirmatory measurement results with the NRC analysis results. The NRC inspectors performed radiochemistry confirmatory measurements during the current inspection and found the licensee's performance much improved. This item is considered closed.

3. Chemistry/Radiochemistry Organization and Management Controls

The NRC inspectors reviewed the licensee's corporate and onsite organizations and staffing regarding chemistry/radiochemistry activities to determine compliance with commitments in Chapter 13, "Conduct of Operations," in the Final Safety Analysis Report (FSAR) and requirements in Section 6.2, "Organization," in the Technical Specifications (TS), and Wat-3 procedures.

The NRC inspectors verified that the organizational structures of the corporate nuclear support organization and the onsite chemistry/radiochemistry section (C/RS) were as defined in the FSAR, TS, and Wat-3 procedures. The NRC inspectors reviewed the corporate and Wat-3 management control procedures and position descriptions for the assignment of responsibilities for the management and implementation of the Wat-3 chemistry/radiochemistry program. The NRC inspectors verified that the administrative control responsibilities specified by the Wat-3 procedures were being implemented.

The NRC inspectors reviewed the staffing of the corporate nuclear support chemistry section and the onsite C/RS and noted that the corporate nuclear chemistry section was fully staffed and the two staff members were the same as reported in previous NRC inspection reports. Since the previous

NRC inspection in May 1985, the onsite C/RS had filled the vacant chemistry technician position and the secondary chemistry supervisor position. At the time of the inspection, all C/RS staff positions were filled.

No violations or deviations were identified.

4. Chemistry/Radiochemistry Personnel Qualifications

The NRC inspectors reviewed the qualifications of the corporate nuclear chemistry technical support personnel and onsite C/RS personnel to determine compliance with commitments in Chapter 13, "Conduct of Operations," in the FSAR and requirements in Section 6.3, "Unit Staff Qualifications," in the TS.

The NRC inspectors reviewed the resumes of each of the corporate nuclear chemistry technical support personnel and onsite C/RS personnel and verified that they met the required qualifications specified in the FSAR, TS, and position descriptions. Based on the review, the NRC inspectors determined that the education and experience backgrounds of the present corporate and onsite C/RS staff met or exceeded the requirements committed to in the FSAR, TS, and positions. The NRC inspectors determined that the licensee, with the use of qualified contract personnel, had an adequate qualified staff to meet shift staffing requirements.

No violations or deviations were identified.

5. Chemistry/Radiochemistry Training Program

The NRC inspectors reviewed the licensee's chemistry/radiochemistry training program to determine compliance with commitments in Chapter 13.2, "Training," in the FSAR, and requirements in Section 6.4, "Training," in the TS, 10 CFR Part 19.12, and Wat-3 procedures.

The NRC inspectors reviewed the training program for C/RS personnel with the technical support training superintendent and determined that the training department had taken over all C/RS staff training with the exception of on-the-job analytical procedures and instrument operation qualification training which will be conducted within the C/RS.

The NRC inspectors reviewed the licensee's program for qualification and training of Wat-3 C/RS personnel as described in Wat-3 Administrative Procedure CE-01-001, "Training and Qualification of Chemistry Department Personnel," Revision 2, August 15, 1985. Based on the review, the NRC inspectors found the licensee's program being implemented in accordance with the above procedure.

The NRC inspectors reviewed the C/RS individual staff training records and qualification cards and found that the initial training records and

qualification cards for all nuclear chemistry technicians hired prior to January 1985 were completed and being transmitted to the nuclear training department for permanent record. The requalification records for 1984 and 1985 were completed and had been transmitted to the nuclear training department and entered into the computer permanent training record.

No violations or deviations were identified.

6. Chemistry/Radiochemistry Program

The NRC inspectors reviewed the licensee's chemistry/radiochemistry program to determine compliance with commitments in Chapter 5, "Reactor Coolant System and Connected Systems," Chapter 9, "Auxiliary Systems," Chapter 10, "Steam and Power Conversion System," and Chapter 11, "Radioactive Waste Management," and requirements in Section 3/4.4.6, "Chemistry," in the TS and C/RS procedures.

The NRC inspectors' review of the chemistry/radiochemistry program found that the licensee had completed and approved all identified administrative procedures, surveillance procedures, chemical control procedures, instrument calibration and performance check procedures, sampling procedures, and analytical procedures. A review of selected procedures, logs, and analytical data indicated that the C/RS had established sufficient administrative and analytical procedures to meet the requirements of the FSAR and TS.

The NRC inspectors verified that the secondary chemistry laboratory instruments and the primary chemistry laboratory instruments had been calibrated according to procedures and a quality control program had been implemented.

No violations or deviations were identified.

7. Facilities and Equipment

The NRC inspectors inspected the secondary chemistry laboratory, secondary chemistry sampling area, primary chemistry laboratory, primary chemistry sampling panel, and radiochemistry counting room. The laboratories were equipped with the necessary chemicals, reagents, standards, labware, and analytical instrumentation to perform the required analytical procedures.

The NRC inspectors noted that the hydrogen and oxygen gas analyzer has been out of service since March 22, 1985. There have been many attempts to fix and modify the system and put it back in service. The gas analyzer and its function are required to satisfy TS 3.3.3.11, and surveillance requirement 4.3.3.11 for waste gas holdup system explosive gas monitoring. The out of service gas analyzer has resulted in one NRC violation, one licensee event report, and several QA findings as a result of internal

audits. The NRC inspectors discussed the modifications and repairs to the gas analyzer with the licensee and was informed that the problem was receiving high priority evaluation and that the gas analyzer was expected to be operational by December 31, 1985.

No violations or deviations were identified.

8. Postaccident Sampling System

The NRC inspectors reviewed the licensee's PASS to determine compliance with the requirements of NUREG-0737, Item II.B.3, and Section 6.8.4.d, "Postaccident Sampling," in the TS.

The NRC inspectors verified that the equipment and associated procedures satisfied the requirements of NUREG-0737, Item II.B.3, and TS for representative sampling and analysis of reactor coolant and containment atmosphere following a reactor incident. The licensee had completed PASS operator training for five chemistry technicians as part of their shift qualification. The remaining five chemistry technicians will receive PASS operator training in conjunction with their 1986 requalification training. The NRC inspectors verified that the initial in-line instrument calibration was performed in conjunction with the completion of a Condition Identification Work Authorization No. 01746, performed in June 1985, and that in-line instrument calibration task cards had been issued on a semi-annual frequency to complete the instrument calibrations by December 21, 1985. The licensee could not demonstrate PASS operability during the inspection due to the cold shutdown condition of the plant.

No violations or deviations were identified.

9. Quality Assurance Program

The NRC inspectors reviewed the licensee's QA organization and audit program regarding chemistry/radiochemistry activities to determine compliance with commitments in Chapter 17, "Quality Assurance," in the FSAR, requirements in Section 6.5.2.8, "Audits," in the TS, and QA manual procedures.

The NRC inspectors reviewed the QA department organization, selected QA audit procedures, audit plans for 1985 and 1986, and QA auditor assignments for operations QA. Audit reports generated from audits performed during 1984 and 1985 in the areas of primary chemistry, secondary and auxiliary chemistry, chemistry equipment calibration and inventory control, PASS, and vendors supporting radiochemistry activities were reviewed for scope to ensure thoroughness of program evaluation and timely followup of identified deficiencies. The NRC inspectors found that the audit plans and checklists were comprehensive and that the responses and corrective

actions to audit findings were timely. It was noted that the chemistry/radiochemistry audits were being performed by an audit team which included a lead auditor qualified to the requirements of ANSI/ASME N45.2.23-1978 and a qualified QA staff member knowledgeable in chemistry/radiochemistry activities at a nuclear power facility.

No violations or deviations were identified.

10. Quality Control of Radiological Analytical Measurements

The NRC inspectors inspected the radiochemistry counting room and reviewed the licensee's program for calibration and quality control of radiological analytical measurements to determine compliance with the requirements in Section 6.8, "Procedures and Programs," in the TS.

The NRC inspectors inspected the licensee's radiochemistry counting room and health physics counting room instrument calibration and quality control procedures, counting instrument calibration data and performance check data, and other documentation of instrument performance. Data for the period January through November 1985 were reviewed.

No violations or deviations were identified.

11. Analytical Measurements

a. Confirmatory Measurements

Confirmatory measurements were performed on the following standard and samples in the NRC Region IV mobile laboratory at the Wat-3 site during the inspection:

1. NRC Particulate Filter Standard (SRS-17818-109)
2. Containment Atmosphere Charcoal Cartridge
3. Containment Atmosphere (1 Liter Gas Marinelli)
4. Waste Gas Decay Tank "C" (30cc gas bulb)
5. Liquid Radwaste Tank "B" (1 Liter Marinelli Beaker)
6. Reactor Coolant System Gas (30cc gas bulb)
7. Reactor Coolant System Degassed Liquid (20ml scintillation vial)
8. Reactor Coolant System Tritium Sample

The confirmatory measurements test consisted of comparing measurements made by the licensee and the NRC mobile laboratory. The NRC's mobile laboratory measurements are referenced to the National Bureau of Standards (NBS) by laboratory intercomparisons. Confirmatory measurements are made only for those nuclides identified by the NRC as being present in concentrations greater than 10 percent of the respective isotopic values for liquid and gas concentrations as stated in 10 CFR Part 20, Appendix B, Table II.

Attachment 1 contains the criteria used to compare results.

b. Results

At the time of the inspection, the licensee had three high purity germanium (HPG) detectors in the radiochemistry counting room and one HPG detector in the health physics counting room. Two of the radiochemistry counting room detectors were out-of-service being calibrated. All four detectors are used for routine isotopic analysis of radioactive samples to demonstrate compliance with TS and regulatory requirements. The HPG detector labeled (1) is located and maintained in the radiochemistry counting room and is primarily used for isotopic analysis of reactor coolant system samples. The HPG detector labeled (2) is located and maintained in the health physics counting room and is used primarily for isotopic analysis of radioactive waste samples and building atmosphere. The analytical results from the two detectors tested were compared with the NRC results. The licensee performed the tritium analysis on their liquid scintillation counting system. The individual sample analyses and comparison of analytical results of the confirmatory measurements are tabulated in Attachment 2.

The licensee's gamma isotopic results from the listed samples in Attachment 2 showed 98 percent agreement with the NRC analysis results based on 47 agreement results out of 48 nuclides identified and compared. The licensee's tritium result on the reactor coolant system sample was in agreement with the NRC analysis result.

Confirmatory measurements were performed by the licensee on a liquid unknown sample prepared by the Radiological Environmental Sciences Laboratory (RESL) in Idaho Falls, Idaho, using known nuclide concentrations of ^{89}Sr , ^{90}Sr , tritium and gamma emitting nuclides. The licensee's analytical results were compared to the known sample activities and the results of the comparisons are presented in Attachment 2, sample 9. The licensee's results were in 100 percent agreement with the certified activities in the sample except for the identification of ^{58}Co in the sample which was not in the prepared sample and was possibly a result of contamination introduced by the licensee during handling of the sample.

No violations or deviations were identified.

12. Routine and Emergency Facilities for the NRC Mobile Laboratory

The NRC inspectors discussed with the licensee the installation of support electrical and telephone facilities for the NRC mobile laboratory both onsite for routine inspections and at the emergency operations facility (EOF) at the Wat-3 training center during radiological incident response activities. The NRC inspectors outlined the mobile laboratory's support requirements as follows:

- a. The parking location should be on a level concrete slab in an area away from overhead electrical transmission lines.
- b. Electrical power should be provided to the vehicle through three independent (nonground faulted) 115 volt 30 ampere circuits equipped with twist-lock receptacles located within 50 feet of the parked vehicle.
- c. Telephone line and modular connection should be provided at the vehicle parking site.

The NRC inspectors discussed several onsite locations with the licensee and indicated a preferred area on the east side of the reactor auxiliary building near the east entrance in close proximity to the area occupied by the mobile laboratory during this inspection. A suitable site on the east side of the EOF was also discussed. The licensee stated that they would investigate how the support requirements could be met at both the onsite location and at the EOF and initiate proper installation of facilities as soon as possible.

13. Exit Briefing

The NRC inspectors met with the NRC senior resident inspector and the licensee representatives identified in paragraph 1 at the conclusion of the inspection on December 12, 1985. The lead NRC inspector summarized the scope of the inspection, discussed the inspection findings, and presented the results of the confirmatory measurements performed on the various intercomparison samples.

Criteria for Comparing Analytical Measurements

The following are the criteria used in comparing the results of capability tests and verification measurements. The criteria are based on an empirical relationship established through prior experience and this program's analytical requirements.

In these criteria, the judgement limits vary in relation to the comparison of the resolution.

$$\text{Resolution} = \frac{\text{NRC VALUE}}{\text{NRC UNCERTAINTY}}$$

$$\text{Ratio} = \frac{\text{LICENSEE VALUE}}{\text{NRC VALUE}}$$

Comparisons are made by first determining the resolution and then reading across the same line to the corresponding ratio. The following table shows the acceptance values.

RESOLUTION	AGREEMENT RATIO
<4	0.4 - 2.5
4 - 7	0.5 - 2.0
8 - 15	0.6 - 1.66
16 - 50	0.75 - 1.33
51 - 200	0.80 - 1.25
>200	0.85 - 1.18

The above criteria are applied to the following analyses:

- (1) Gamma Spectrometry.
- (2) Tritium analyses of liquid samples.
- (3) Iodine on adsorbers.
- (4) ⁸⁹Sr and ⁹⁰Sr determinations.
- (5) Gross Beta where samples are counted on the same date using the same reference nuclide.

Attachment 2

Confirmatory Measurements Results

1. NRC Particulate Filter Standard (SRS-17818-109)
(Standardized 11:00 CST, July 1, 1985)

<u>Wat-3 Nuclide</u>	<u>Wat-3 Det.</u>	<u>Wat-3 Results (uCi/sample)</u>	<u>NRC Results (uCi/sample)</u>	<u>Wat-3/NRC Ratio</u>	<u>Comparison Decision</u>
⁵⁷ Co	(2)	1.86±0.01E-02	1.94±0.01E-02	0.96	Agreement
⁶⁰ Co	(2)	4.69±0.03E-02	5.05±0.02E-02	0.93	Agreement
⁸⁸ Y	(2)	1.08 E-01	1.17±0.0E-01	0.93	Agreement
¹⁰⁹ Cd	(2)	1.18±0.01E+00	1.22±0.01E+00	0.97	Agreement
¹¹³ Sn	(2)	7.21±0.04E-02	7.41±0.03E-02	0.97	Agreement
¹³⁷ Cs	(2)	4.68±0.02E-02	4.78±0.02E-02	0.98	Agreement
¹³⁹ Ce	(2)	3.31±0.02E-02	3.54±0.01E-02	0.93	Agreement
²⁰³ Hg	(2)	6.14±0.08E-02	7.14±0.06E-02	0.86	Agreement

2. Containment Atmosphere Charcoal Cartridge
(Sampled 17:42 CST, December 9, 1985)

<u>Nuclide</u>	<u>Wat-3 Det.</u>	<u>Wat-3 Results (uCi/cc)</u>	<u>NRC Results (uCi/cc)</u>	<u>Wat-3/NRC Ratio</u>	<u>Comparison Decision</u>
¹³¹ I	(2)	3.55±0.05E-09	3.30±0.04E-09	1.08	Agreement
¹³³ I	(2)	3.57±0.20E-10	3.44±0.16E-10	1.04	Agreement

3. Containment Atmosphere (1 Liter Gas Marinelli)
(Sampled 17:30 CST, December 9, 1985)

<u>Nuclide</u>	<u>Wat-3 Det.</u>	<u>Wat-3 Results (uCi/cc)</u>	<u>NRC Results (uCi/cc)</u>	<u>Wat-3/NRC Ratio</u>	<u>Comparison Decision</u>
^{131m} Xe	(2)	7.91±0.73E-06	7.93±0.60E-06	1.00	Agreement
^{133m} Xe	(2)	6.22±0.26E-06	5.63±0.24E-06	1.11	Agreement
¹³³ Xe	(2)	7.30±0.02E-04	6.91±0.01E-04	1.06	Agreement
¹³⁵ Xe	(2)	6.98±0.30E-07	6.66±0.31E-07	1.05	Agreement

4. Waste Gas Decay Tank "C" (30cc gas bulb)
 (Sampled 10:15 CST, December 10, 1985)

<u>Nuclide</u>	<u>Wat-3 Det.</u>	<u>Wat-3 Results (uCi/cc)</u>	<u>NRC Results (uCi/cc)</u>	<u>Wat-3/NRC Ratio</u>	<u>Comparison Decision</u>
⁸⁵ Kr	(2)	8.23±2.99E-04	7.99±1.60E-04	1.03	Agreement
^{131m} Xe	(2)	1.98±0.16E-03	1.15±0.07E-03	1.72	Agreement
^{133m} Xe	(2)	1.90±0.03E-03	1.67±0.002E-3	1.13	Agreement
¹³³ Xe	(2)	2.13±0.001E-1	1.96±0.001E-1	1.08	Agreement
¹³⁵ Xe	(2)	1.14±0.03E-04	9.91±0.18E-05	1.15	Agreement

5. Liquid Radwaste Tank "B" (1 Liter Marinelli Beaker)
 (Sampled 11:20 CST, December 10, 1985)

<u>Nuclide</u>	<u>Wat-3 Det.</u>	<u>Wat-3 Results (uCi/ml)</u>	<u>NRC Results (uCi/ml)</u>	<u>Wat-3/NRC Ratio</u>	<u>Comparison Decision</u>
⁵⁴ Mu	(2)	1.85±0.03E-05	1.85±0.03E-05	1.00	Agreement
⁵⁸ Co	(2)	2.21±0.01E-04	2.24±0.01E-04	0.99	Agreement
⁵⁹ Fe	(2)	2.47±0.27E-06	2.60±0.23E-06	0.95	Agreement
⁶⁰ Co	(2)	6.45±0.22E-06	6.21±0.19E-06	1.04	Agreement
⁹⁹ Mo	(2)	2.72±0.19E-05	2.71±0.15E-05	1.00	Agreement
^{99m} Tc	(2)	2.65±0.06E-05	3.29±0.06E-05	0.81	Agreement
¹²² Sb	(2)	1.51±0.42E-06	1.27±0.31E-06	1.19	Agreement
¹³¹ I	(2)	1.86±0.002E-3	1.87±0.002E-3	1.00	Agreement
¹³³ I	(2)	1.11±0.01E-04	1.11±0.01E-04	1.00	Agreement
¹³⁴ Cs	(2)	8.53±0.33E-06	8.80±0.27E-06	0.97	Agreement
¹³⁶ Cs	(2)	1.81±0.09E-05	1.85±0.03E-05	0.98	Agreement
¹³⁷ Cs	(2)	4.00±0.05E-05	3.92±0.04E-05	1.02	Agreement
¹⁴⁰ Ba	(2)	6.25±1.43E-06	5.76±1.13E-06	1.08	Agreement
¹⁴⁰ La	(2)	2.14±0.15E-06	2.05±0.12E-06	1.05	Agreement

6. Reactor Coolant System Gas (30cc gas bulb)
(Sampled 16:42 CST, December 9, 1985)

<u>Nuclide</u>	<u>Wat-3 Det.</u>	<u>Wat-3 Results (uCi/cc)</u>	<u>NRC Results (uCi/cc)</u>	<u>Wat-3/NRC Ratio</u>	<u>Comparison Decision</u>
^{131m}Xe	(1)	1.82±0.17E-02	1.25±0.16E-02	1.45	Agreement
^{133m}Xe	(1)	3.89±0.07E-02	3.66±0.07E-02	1.06	Agreement
^{133}Xe	(1)	3.21±0.003E+0	2.89±0.003E+0	1.11	Agreement
^{135}Xe	(1)	1.22±0.01E-02	9.98±0.12E-03	1.23	Agreement

7. Reactor Coolant System Degassed Liquid (20ml scintillation vial)
(Sampled 14:50 CST, December 9, 1985)

<u>Nuclide</u>	<u>Wat-3 Det.</u>	<u>Wat-3 Results (uCi/ml)</u>	<u>NRC Results (uCi/ml)</u>	<u>Wat-3/NRC Ratio</u>	<u>Comparison Decision</u>
^{54}Mn	(1)	4.38±0.06E-03	5.02±0.06E-03	0.87	Agreement
^{58}Co	(1)	1.52±0.01E-02	1.76±0.01E-02	0.87	Agreement
^{59}Fe	(1)	1.14±0.06E-03	1.23±0.06E-03	0.92	Agreement
^{60}Co	(1)	9.03±0.35E-04	1.07±0.04E-03	0.84	Agreement
^{99m}Tc	(1)	2.30±0.36E-04	2.49±0.29E-04	0.93	Agreement
^{131}I	(1)	1.83±0.002E-1	2.05±0.002E-1	0.89	Agreement
^{132}I	(1)	3.17±0.09E-3	3.19±0.07E-3	0.99	Agreement
^{133}I	(1)	2.21±0.01E-02	2.46±0.01E-02	0.90	Agreement
^{134}Cs	(1)	8.50±0.37E-04	9.26±0.38E-04	0.92	Agreement
^{136}Cs	(1)	1.95±0.09E-03	2.14±0.05E-03	0.91	Agreement
^{137}Cs	(1)	4.37±0.06E-03	4.74±0.06E-03	0.92	Agreement

8. Reactor Coolant System Tritium Sample
(Sampled 9:30 CST, December 10, 1985)

Nuclide	Wat-3 Results (uCi/ml)	NRC Results (uCi/ml)	Wat-3/NRC Ratio	Comparison Decision
³ H	8.96E-02	9.30E-02	0.96	Agreement

9. RESL Unknown Liquid Sample
(Standardized 12:00 MST, January 11, 1985)

Nuclide	Wat-3 Results (uCi/ml)	NRC Results ^{1/} (uCi/ml)	Wat-3/NRC Ratio	Comparison Decision
³ H	5.66E-05	5.85±0.±1E-05	0.97	Agreement
⁸⁹ Sr	2.40±0.3E-04	2.46±0.08E-04	0.98	Agreement
⁹⁰ Sr	2.60±0.1E-05	2.71±0.11E-05	0.96	Agreement
¹³⁷ Cs	1.18E-05	1.22±0.02E-05	0.97	Agreement
⁶⁰ Co	1.15E-05	1.09±0.02E-05	1.06	Agreement
⁵⁸ Co	3.34E-05	Not Present	----	Disagreement

^{1/}

NRC results were taken from the standard certification supplied to the Region IV office as prepared by RESL and traceable to the National Bureau of Standards.