

official

FEB 04 1986

Florida Power and Light Company
✓ ATTN: Mr. C. O. Woody
Group Vice President
Nuclear Energy Department
P. O. Box 14000
Juno Beach, FL 33408

Gentlemen:

SUBJECT: CONFIRMATORY MEASUREMENTS RESULTS
DOCKET NOS. 50-250 AND 50-251

As part of the NRC Confirmatory Measurements Program, and supplemental to Inspection Reports 50-250/84-32 and 50-251/84-33, spiked liquid samples were sent on July 22, 1985, to your Turkey Point facility for selected radiochemical analyses. We are in receipt of your analytical results transmitted to us by your letter L-85-369. Verification of reported data values were discussed with members of your staff on December 16, 1985. Provided as Enclosure 1 is a comparison of your reported results to the known values. The acceptance criteria for the comparisons are listed in Enclosure 2.

In our review of these data, all comparative results were in agreement. These data should be reviewed in greater detail by cognizant staff members for any significant trends in the data among successive years in which samples have been analyzed by your facility. Any biases noted may be indicative of a programmatic weakness and your efforts should be put forth in determining reasons for such biases.

These results and any results from previous years pertaining to these analyses will be discussed at future NRC inspections.

Sincerely,
*original signed by
Vincent W. Panciera*

Vincent W. Panciera, Acting Chief
Reactor Projects Branch 2
Division of Reactor Projects

- Enclosures:
1. Confirmatory Measurement Comparisons
 2. Criteria for Comparing Analytical Measurements

cc w/encls: (See page 2)

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cc w/encls:

- ✓ C. M. Wethy, Vice President
Turkey Point Nuclear Plant
- ✓ C. J. Baker, Plant Manager
Turkey Point Nuclear Plant
- ✓ R. J. Acosta, Plant QA Superintendent
- ✓ J. Arias, Jr., Regulatory and Compliance
Supervisor

bcc w/encls:

- WRC Resident Inspector
- Document Control Desk
- State of Florida

RII
JHarris
1/16/86

RII
WClone
1/16/86

RII
DCollins
1/25/86

RII
SE1rod
1/31/86

ENCLOSURE 1

CONFIRMATORY MEASUREMENT COMPARISONS OF H-3, FE-55, SR-89, AND SR-90 ANALYSIS
FOR TURKEY POINT NUCLEAR PLANT ON JULY 22, 1985

Isotope	Licensee (uCi/unit)	NRC (uCi/unit)	Resolution	Ratio (Licensee/NRC)	Comparison
H-3	3.09 E-5	2.98±.06 E-5	50	1.04	Agreement
Fe-55	1.10±.06 E-5	1.04±.02 E-5	52	1.06	Agreement
Sr-89	1.19±.05 E-4	1.25±.04 E-4	31	.85	Agreement
Sr-90	1.13±.008 E-5	1.38±.06 E-5	23	.82	Agreement

ENCLOSURE 2

CRITERIA FOR COMPARING ANALYTICAL MEASUREMENTS

This enclosure provides criteria for comparing results of capability tests and verification measurements. The criteria are based on an empirical relationship which combines prior experience and the accuracy needs of this program.

In these criteria, the judgement limits denoting agreement or disagreement between licensee and NRC results are variable. This variability is a function of the NRC's value relative to its associated uncertainty. As the ratio of the NRC value to its associated uncertainty, referred to in this program as "Resolution"¹ increases, the range of acceptable differences between the NRC and licensee values should be more restrictive. Conversely, poorer agreement between NRC and licensee values must be considered acceptable as the resolution decreases.

For comparison purposes, a ratio² of the licensee value to the NRC value for each individual nuclide is computed. This ratio is then evaluated for agreement based on the calculated resolution. The corresponding resolution and calculated ratios which denote agreement are listed in Table 1 below. Values outside of the agreement ratios for a selected nuclides are considered in disagreement.

NRC Reference Value for a Particular Nuclide

$$^1 \text{ Resolution} = \frac{\text{Associated Uncertainty for the Value}}{\text{NRC Reference Value for a Particular Nuclide}}$$

Licensee Value

$$^2 \text{ Comparison Ratio} = \frac{\text{NRC Reference Value}}{\text{Licensee Value}}$$

TABLE 1 - Confirmatory Measurements Acceptance Criteria
Resolutions vs. Comparison Ratio

<u>Resolution</u>	<u>Comparison Ratio for Agreement</u>
<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