4.4.4

Docket: 50-445

Texas Utilities Electric Company ATTN: M. D. Spence, President, TUGCO Skyway Tower 400 North Olive Street Lock Box 81 Dallas, Texas 75201

Gentlemen:

This refers to the results of confirmatory measurements performed by your radiochemistry laboratory on a liquid "unknown" sample supplied upon request with nown isotopic activities by the NRC's reference laboratory, Radiological and Environmental Sciences Laboratory (RESL) in Idaho Falls, Idaho. The sample was sent to your laboratory in conjunction with an NRC confirmatory measurements inspection conducted in January 1984. The isotopic activities used by RESL in the preparation of the liquid sample were traceable to the National Bureau of Standards radioactivity measurements systems by laboratory intercomparisons. The comparative analysis results are tabulated below for your review. These results will appear in the next NRC confirmatory measurements inspection report.

Attachment 1 explains the criteria used to compare results.

RESL Unknown Liquid Sample (Standardized 12:00 MDT, August 16, 1983)

Nuclide	TUGCO Result (uCi/ml)	NRC Result 1/ (uCi/ml)	TUGCO/NRC Ratio	Comparison Decision
Tritium	5.5E-05	6.19 ± 0.18E-05	0.89	Agreement
89 _{Sr}	1.5E-04	2.16 ± 0.04E-04	0.69	Disagreement
90 _{Sr}	2.2E-05	3.43 ± 0.10E-05	0.64	Disagreement
60 _{Co}	4.5E-06	4.36 ± 0.09E-06	1.03	Agreement
137 _{Cs}	2.9E-06	3.34 ± 0.07E-06	0.87	Agreement
144 _{Ce}	4.5E-06	3.91 ± 0.12E-06	1.15	Agreement

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

FRPS / Nicholas; df

FRPSON EPERPBON DRSSS MBMurray CorREHall RLBan 7/17/84 7/18/84

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8408140383 840804 PDR ADOCK 05000445 A PDR Should you have any questions concerning this letter, we will be pleased to discuss them with you.

Sincerely,

Richard L. Bangart, Director

Region IV Comanche Peak Task Force

Attachment: As Stated

cc w/attachment:
Texas Utilities Electric Company
ATTN: B. R. Clements, Vice
President, Nuclear
Skyway Tower
400 North Olive Street
Lock Box 81
Dallas, Texas 75201

Texas Utilities Electric Company
ATTN: H. C. Schmidt, Manager
Nuclear Services
Skyway Tower
400 North Olive Street
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Texas Utilities Generating Company ATTN: Mr. R. A. Jones, Manager Plant Operations P. O. Box 2300 Glen Rose, Texas 76043

Texas Utilities Generating Company
ATTN: Mr. R. D. Delano, Chemistry and
Environmental Engineer
P. O. Box 2300
Glen Rose, Texas 76043

bcc to DMB (IEO6)

RIV File

bcc distrib. by RIV:
RPB1
RPB2
TOB EPERPB
J. Collins, RA
R. Bangart, FRPS
B. Murray, FRPS

D. Kelley, SRI-Ops Section Chief (RPS-B) R. Denise, DRRP&EP S. Treby, ELD B. Nicholas, FRPS Juanita Ellis David Preister

ATTACHMENT NO. 1

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.

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

Ratio = LICENSEE VALUE

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

The above criteria are applied to the following analyses:

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

Course Cheanne Clark