



Nuclear Fuel Services, Inc.
P.O. Box 337, MS 123
Erwin TN 37650

(615) 743-9141

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

**21G-94-0137
GOV-01-60
ACF-94-215**

August 29, 1994

Mr. Stewart D. Ebnetter, Regional Administrator
U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
101 Marietta Street, NW, Suite 2900
Atlanta, GA 30323

REFERENCE: 1) **DOCKET 70-143/SNM-124**
2) **ORIGINAL SEMI-ANNUAL EFFLUENT LOSS
REPORT SUBMITTAL (21G-93-0143)**

**SUBJECT: BI-ANNUAL EFFLUENT MONITORING REPORT
(JANUARY - JUNE, 1994)**

Dear Mr. Ebnetter:

In accordance with the requirements set forth in Title 10 CFR, Part 70.59, Nuclear Fuel Services, Inc., (NFS) submits the attached report (Attachment A) of its effluent monitoring for the period January-June 1994.

Included as Attachment B is the amended Effluent Monitoring Report for the first half of 1993. This constitutes a final effluent release report based upon complete isotopic data sets.

If you have any questions or need further information, please contact Ms. B. M. Moore, Environmental Manager at (615) 743-1737, or me. Please reference our unique document identification number (21G-94-0137) in any correspondence concerning this letter.

Sincerely,

NUCLEAR FUEL SERVICES, INC.

A. M. Maxin
Vice President
Safety and Regulatory

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Attachment

cc: Director, Office of Nuclear Material
Safety and Safeguards
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Mr. Robert C. Pierson, Chief
Licensing Branch
Division of Fuel Cycle Safety
and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555

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NUCLEAR FUEL SERVICES, INC.
Erwin, Tennessee

REPORT OF EFFLUENT MONITORING AND
RELEASE TO UNRESTRICTED AREAS

License No.: SNM-124
Docket No.: 70-143

Period Covered: JANUARY 1, 1994
JUNE 30, 1994

I. Gaseous Effluents

Radionuclide	Quantity Released (Curies)		
Uranium-234	3.25E-05	+/-	3.03E-06
Uranium-235	5.72E-07	+/-	5.37E-08
Uranium-236	3.57E-09	+/-	5.46E-10
Uranium-238	3.33E-07	+/-	4.51E-08
Plutonium-238	1.69E-09	+/-	4.29E-10
Plutonium-239	9.03E-10	+/-	2.30E-10
Plutonium-240	8.15E-10	+/-	2.07E-10
Plutonium-241	1.11E-07	+/-	2.83E-08
Plutonium-242	1.16E-12	+/-	2.95E-13
Americium-241	1.04E-09	+/-	2.65E-10
Thorium-228	6.03E-07	+/-	2.01E-08
Thorium-230	1.91E-07	+/-	6.38E-09
Thorium-232	6.68E-07	+/-	2.23E-08

II. Liquid Effluents

Radionuclide			
Uranium-234	1.20E-02	+/-	7.21E-04
Uranium-235	3.60E-04	+/-	2.70E-05
Uranium-238	1.81E-03	+/-	1.30E-04
Thorium-228	4.45E-05	+/-	7.66E-06
Thorium-230	3.81E-05	+/-	5.74E-06
Thorium-232	4.30E-05	+/-	6.05E-06
Thorium-234	2.89E-03	+/-	2.01E-04
Plutonium-238	2.26E-05	+/-	4.96E-06
Plutonium-239	4.09E-04	+/-	7.90E-05
Technetium-99	2.16E-03	+/-	1.30E-04

In accordance with the requirements set forth in Title 10 CFR, Part 70.59, Nuclear Fuel Services, Inc., (NFS) submits the amended report of its effluent monitoring at the Erwin, Tennessee plant for the period covering January through June, 1993.

Some of the liquid effluent monitoring data were estimated for the original report by averaging the available isotopic ratios per the given stream for the period. This was necessary because the specified isotopic data had not been received from our contract laboratory.

The present amended report fulfills our commitment to provide an update upon receipt of the outstanding isotopic results.

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NUCLEAR FUEL SERVICES, INC.
Erwin, Tennessee

REPORT OF EFFLUENT MONITORING AND
RELEASE TO UNRESTRICTED AREAS

License No.: SNM-124
Docket No.: 70-143

Period Covered: JANUARY 1, 1993
JUNE 30, 1993

I. Gaseous Effluents

Radionuclide	Quantity Released (Curies)		
Uranium-234	7.60E-04	±	1.31E-05
Uranium-235	1.27E-05	±	2.25E-07
Uranium-236	5.61E-08	±	1.33E-09
Uranium-238	3.22E-07	±	4.85E-08
Plutonium-238	1.51E-08	±	1.02E-09
Plutonium-239	8.10E-09	±	5.44E-10
Plutonium-240	7.31E-09	±	4.91E-10
Plutonium-241	9.99E-07	±	6.71E-08
Plutonium-242	1.04E-11	±	6.98E-13
Americium-241	9.34E-09	±	6.27E-10

II. Liquid Effluents

Radionuclide			
Uranium-234	1.33E-02	±	1.35E-03
Uranium-235	4.06E-04	±	5.31E-05
Uranium-238	8.45E-04	±	8.06E-05
Thorium-228	1.55E-04	±	2.35E-05
Thorium-230	7.49E-05	±	6.16E-06
Thorium-232	7.28E-05	±	7.55E-06
Thorium-234	1.41E-03	±	3.60E-04
Plutonium-238	1.36E-04	±	1.07E-05
Plutonium-239	1.48E-03	±	1.99E-04
Technetium-99	3.87E-02	±	4.93E-03