

84289 7900508135

216-84-0186  
60V-01-55-03



**Nuclear Fuel Services, Inc. ERWIN, TENNESSEE 37660**

(615) 743-1

411

August 27, 1984

ACF# 411

Date: 8/28 By: HW

Distribution:

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

U.S. Nuclear Regulatory Commission  
Office of Inspection and Enforcement  
101 Marietta Street, Suite 3100  
Atlanta, GA 30303

Attention: Mr. J. P. O'Reilly  
Regional Administrator

Reference: (1) Docket No. 70-143; SNM-124

NRC File Corporate  
F. K. Guinn  
K. D. Hensley  
C. L. Brown  
H. Bailey  
B. L. Griffith  
D. E. Gergely  
A. M. Maxin  
M. C. Tester  
Document Control /  
Info. Copy

Gentlemen:

In accordance with the requirements set forth in Title 10 CFR, Part 70.59, Nuclear Fuel Services, Inc., submits the attached report of its effluent monitoring at the Erwin, Tennessee plant for the period covering January through June, 1984. Please contact us if you have any questions regarding this report.

Yours very truly,  
  
R. L. Locker, Manager  
Safety & Decommissioning

RLI:tlw

Attachment

cc: Director of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

FRAME # \_\_\_\_\_

REEL # \_\_\_\_\_

INFORMATION CATEGORY

UNCLASSIFIED

CLASSIFIED

REVIEWED BY DATE 8/27/84

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, 1984  
to June 30, 1984

I. GASEOUS EFFLUENTS

Radionuclide

Quantity Released (Curies)

Uranium-233

U-233 stacks were decommissioned as of 04/13/82

Uranium-234

$1.82 \times 10^{-2} + 2.11 \times 10^{-3}$

Uranium-235

$7.23 \times 10^{-6} + 8.55 \times 10^{-5}$

Uranium-236

$4.66 \times 10^{-5} + 5.67 \times 10^{-6}$

Uranium-238

$3.82 \times 10^{-3} + 4.67 \times 10^{-4}$

Plutonium-238

$4.38 \times 10^{-9} + 1.44 \times 10^{-8}$

Plutonium-239

$2.34 \times 10^{-9} + 7.69 \times 10^{-9}$

Plutonium-240

$2.11 \times 10^{-9} + 6.94 \times 10^{-9}$

Plutonium-241

$2.89 \times 10^{-7} + 9.48 \times 10^{-7}$

Plutonium-242

$3.00 \times 10^{-12} + 9.86 \times 10^{-12}$

Americium-241

$2.70 \times 10^{-9} + 8.86 \times 10^{-9}$

II. LIQUID EFFLUENTS

Radionuclide

Quantity Released (Curies)

Uranium-234

$5.91 \times 10^{-2} + 4.72 \times 10^{-3}$

Uranium-235

$2.07 \times 10^{-3} + 4.35 \times 10^{-6}$

Uranium-236

$1.69 \times 10^{-5} + 6.28 \times 10^{-6}$

Uranium-238

$1.93 \times 10^{-3} + 7.63 \times 10^{-6}$

Thorium-228

$7.94 \times 10^{-5} + 1.72 \times 10^{-6}$

Thorium-230

$1.14 \times 10^{-6} + 1.92 \times 10^{-6}$

Thorium-232

$1.42 \times 10^{-5} + 3.25 \times 10^{-5}$

Thorium-234

$3.63 \times 10^{-3} + 8.25 \times 10^{-6}$

Plutonium-238

$1.64 \times 10^{-9} + 2.77 \times 10^{-9}$

Plutonium-239

$1.57 \times 10^{-6} + 2.00 \times 10^{-6}$

Technetium-99

$1.05 \times 10^{-3} + 3.39 \times 10^{-3}$