



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

(423) 743-9141

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

**21G-96-0069
GOV-01-55-04
ACF 96-117
May 31, 1996**

Mr. Robert C. Pierson, Chief
Licensing Branch, NMSS
U. S. Nuclear Regulatory Commission
Mail Stop T 8 D-14
Washington, DC 20555-0001

- Reference:
- 1) Docket No. 70-143; SNM License 124
 - 2) NFS letter A. M. Maxin to R. C. Pierson, dated April 26, 1996, license renewal request
 - 3) NFS letter Donald Paine to Charles J. Haughney, dated October 15, 1990, updates to the 1984 Environmental Report
 - 4) NFS letter Donald Paine to Charles J. Haughney, dated May 15, 1991, additional updates to the 1984 Environmental Report

Dear Mr. Pierson:

In our April 26, 1996, request for renewal of special nuclear material license SNM-124 (Reference 2), Nuclear Fuel Services, Inc., (NFS), committed to providing you with an update to the 1984 NFS Environmental Report (ER), reflecting results of the environmental monitoring program through 1995.

Attachment 1 to this letter is a *Supplement to the 1984 NFS Environmental Report*, submitted pursuant to the requirements of 10 CFR 51.60. This Attachment includes tabular summaries of environmental monitoring program data at the NFS site for the six year period 1990 through 1995. During this six-year period, nuclear fuel manufacturing operations ceased, and decommissioning activities increased significantly at the site.

References 3 and 4 provided updates to the ER for certain environmental monitoring areas. These updates were provided at the request of the NRC as part of its license renewal review process, completed in 1992. The data provided covered the five-year period 1985-1989. Some of the monitoring programs identified in the ER were not updated at that time. That information is on file (microfilm) at NFS and can be provided to the NRC, if required, upon request. As stated in Reference 2, NFS still plans to submit to you by June 30, 1997, a completely revised and updated Environmental Report for the NFS site

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A M. Maxin to R. C. Pierson
May 31, 1996
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If you have questions or require additional information, please contact me or Mr. David G. Culberson, Licensing Manager, at 423-743-2504. Please use our unique document identification number (21G-96-0069) in any correspondence concerning this letter.

Sincerely,

NUCLEAR FUEL SERVICES, INC.



Andrew M. Maxin
Vice President
Safety and Regulatory Management

AMM:DGC/jpc

cc: Regional Administrator
Region II, U. S. Nuclear Regulatory Commission
101 Marietta St., NW, Suite 2900
Atlanta, GA 30323

✓ Mr. William Gloersen
Project Inspector
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street NW, Suite 2900
Atlanta, GA 30323

Attachment to
Letter A. M. Maxin to R. C. Pierson
dated May 31, 1996

SUPPLEMENT
TO THE
1984 NFS ENVIRONMENTAL REPORT

The following tables are provided to reflect environmental monitoring results for the NFS Erwin, TN, site for the six-year period 1990 through 1995. This information is provided to the NRC as an update to data provided in the 1984 Environmental Report. This update has been prepared pursuant to the requirements of 10 CFR 51.60, to support NFS' April 26, 1996, request for renewal of special nuclear materials license No. SNM-124.

List of Tables Included in This Update to the NFS Environmental Report

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TABLE 5.4A(2)
SUMMARY OF ENVIRONMENTAL AIR SAMPLING
AVERAGE GROSS ALPHA RADIOACTIVITY (uCi/ml E-14)

SAMPLER/LOCATION	1990	1991	1992	1993	1994	1995
Perimeter - NE* (2 sample avg) #173, #217	0.29	0.30	0.19	0.32	0.26	0.24
Perimeter - E (2 sample avg) #174, #218	0.46	0.30	0.21	0.22	0.23	0.23
Perimeter - S #172	0.22	0.16	0.17	0.20	0.19	0.23
Perimeter - W #171	0.45	0.26	0.22	0.23	0.24	0.27
Perimeter - NW* #170	0.17	0.15	0.16	0.13	0.13	0.25
Perimeter - ENE #555	0.39	0.30	1.17	1.31	0.79	0.18
Perimeter - W #668 **	-	-	-	-	-	1.10
Off-Site - Little Mtn. (approx. 800 m NE)#322	0.17	0.16	0.13	0.17	0.20	0.20
Off-Site - Carolina Ave. (approx. 300 m ESE)#323	0.22	0.18	0.24	0.17	0.20	0.20
Off-Site - Asheville Hwy. (approx. 8 km SW) #324	0.20	0.16	0.18	0.17	0.21	0.20
Off-Site - Emerg. House (280 m S) #372	0.20	0.15	0.15	0.18	0.22	0.21
Off-Site - Carolina Ave./ Stalling Lane (215 m SE) #381	0.21	0.16	0.17	0.18	0.21	0.20
Off-Site - Stalling Lane (315 m SE) #382	0.21	0.16	0.13	0.18	0.21	0.19
Off-Site - Highland Ave./ First Street (405 m S) #383	0.23	0.25	0.14	0.17	0.20	0.20
Off-Site - Meadowbrook Lane (540 m ENE) #384	0.16	0.17	0.12	0.16	0.20	0.19
Off-Site - Security Fence (210 m SSW) #385	0.24	0.20	0.14	0.15	0.21	0.22
Off-site - Sewer Mound (approx. 300 m N) #553	0.25	0.17	0.20	0.17	0.24	0.24
Off-site - Phone Pole (S) #580	0.18	0.13	0.13	0.13	0.18	0.20
Offsite - Images West (W) #581	0.19	0.16	0.13	0.18	0.21	0.21
Offsite - Career Center - #582	0.19	0.16	0.15	0.17	0.21	0.24

* - Downwind of prevailing wind

** - New sampler #668 collection period began in July 1995.

Most restrictive unrestricted area MPC for uranium (insoluble): 400 E-14 uCi/ml

Most restrictive unrestricted area MPC for plutonium (soluble): 6 E-14 uCi/ml

TABLE 5.4B(2)

LUNG SOLUBILITY AND PARTICLE SIZE SUMMARY
FROM SAMPLES COLLECTED
AT THE PARKING LOT ENTRANCE

Period	AMAD (Micro Meters)	% Class D	% Class W	% Class Y
1st Qtr. 1990	0.4	27	0	73
2nd Qtr. 1990	1.1	30	0	70
3rd Qtr. 1990	1.8	54.3	0	45.7
4th Qtr. 1990	0.8	39.3	20.7	40
1st Qtr. 1991	1.6	52	0	48
2nd Qtr. 1991	1.5	55.3	0	44.7
3rd Qtr. 1991	1.2	41.3	0	58.7
4th Qtr. 1991	0.9	50	0	50
1st Qtr. 1992	0.01 **	28.3	13.3	58.3
2nd Qtr. 1992	0.023	56.7	0	43.3
3rd Qtr. 1992	0.015	31	0	69
4th Qtr. 1992	0.9	46	0	54
1st Qtr. 1993	0.01 **	27	11.5	62.5
2nd Qtr. 1993	0.43	23	0	77
3rd Qtr. 1993	2.2	35	0	65
4th Qtr. 1993	0.9	33	0	67
1st Qtr. 1994	0.59	32	0	68
2nd Qtr. 1994	0.17	23	0	77
3rd Qtr. 1994	1.05	24	0	76
4th Qtr. 1994	0.24	26	0	74
1st Qtr. 1995	0.2	39	0	61
2nd Qtr. 1995	0.5	39	0	61
3rd Qtr. 1995	0.56	*	*	*
4th Qtr. 1995	*	*	*	*
Average	0.7	36.9	2.1	61.1

* Data not yet received from contractor laboratory.

** This is a less-than-value.

TABLE A
SUMMARY OF STACK EFFLUENT CONCENTRATIONS
Units In uCi/ml E-12

Stack Category	Stack No.	Process Description	1990		1991		1992	
			Max	Avg	Max	Avg	Max	Avg
Plutonium (Pu238, Pu239, Pu240, Pu241, Am241)	27	Product Glove Boxes	0.007	0.001	0.010	0.002	0.100	0.006
	28	Room Cell Air	0.007	0.001	0.020	0.001	0.010	0.001
	29	Wet Cell Scrubber	0.130	0.005	0.030	0.002	0.010	0.002
	103	Dry Boxes	0.027	0.006	0.010	0.006	-	-
	104	Dry Boxes	0.015	0.004	0.010	0.003	0.060	0.005
	224	Dissolution Glove Boxes	0.030	0.003	0.090	0.007	0.010	0.002
	554	Bldg 110 Pu Lab Exhaust	0.009	0.001	0.030	0.002	0.004	0.001
	583	Bldg 234 Pu Lab Exhaust	0.015	0.003	0.020	0.001	0.010	0.001
Uranium (U234, U235, U236, U238)	185	Production Dry Boxes	0.330	0.065	7.380	0.065	7.800	0.039
	376	Bldg. 301 Ventilation	2.790	0.120	4.150	0.065	6.320	0.014
	573	Finishing Offgas	250.0	11.575	205.0	3.955	56.100	0.243
	600	Bldg. 110 R&D Lab	-	-	-	-	-	-
	615	Bldg. 302 Organic Vent System	-	-	-	-	-	-
	649	Bldg. 330 Roof	-	-	-	-	-	-
	667	Pond 4 Area	-	-	-	-	-	-
Uranium & Thorium (U234, U235, U236, U238, Th228, Th230, Th232)	416	Main Process Ventilation	38.000	2.200	79.000	3.300	14.000	1.350
	332	Maintenance Welding Hood	0.450	0.070	0.800	0.035	-	-
	333	NDA Standards Hood	0.830	0.060	1.360	0.045	0.380	0.012
	421	Bldg. 100 Laundry, East	8.610	0.650	4.540	0.915	3.570	0.460
	547	Bldg. 100 Laundry, North	3.430	0.065	0.666	0.045	63.500	0.030
	646	Bldg. 110 Roof	-	-	-	-	-	-
	594	Ponds Area Compactor	-	-	-	-	-	-
	619	Ponds Area RALF: Lab Hood Exhaust	-	-	-	-	-	-
643	Ponds Area STB Settling Tanks	-	-	-	-	-	-	
L.E. Uranium	320	Cylinder Wash Operation	2.370	0.265	-	-	-	-
	354	Trash Compactor	0.280	0.165	-	-	-	-

TABLE 5.6
SUMMARY OF STACK EFFLUENT CONCENTRATIONS
Units in uCi/ml E-12

Stack Category	Stack No.	Process Description	1993		1994		1995	
			Max	Avg	Max	Avg	Max	Avg
Plutonium (Pu238, Pu239, Pu240, Pu241, Am241)	27	Product Glove Boxes	0.250	0.013	0.005	0.001	0.252	0.008
	28	Room Cell Air	0.003	0.001	0.005	0.002	0.023	0.001
	29	Wet Cell Scrubber	-	-	-	-	-	-
	103	Dry Boxes	-	-	-	-	-	-
	104	Dry Boxes	-	-	-	-	-	-
	224	Dissolution Glove Boxes	0.082	0.005	0.125	0.005	0.152	0.005
	554	Bldg 110 Pu Lab Exhaust	0.006	0.001	0.008	0.002	0.030	0.001
	583	Bldg 234 Pu Lab Exhaust	0.012	0.002	0.014	0.003	0.017	0.002
Uranium (U234, U235, U236, U238)	185	Production Dry Boxes	0.57	0.034	0.54	0.03	0.04	0.004
	376	Bldg. 301 Ventilation	1.41	0.028	0.82	0.03	0.13	0.009
	573	Finishing Offgas	1.27	0.032	-	-	-	-
	600	Bldg. 110 R&D Lab	5.71	0.092	1.56	0.03	0.27	0.010
	615	Bldg. 302 Organic Vent System	13.60	0.053	-	-	0.05	0.008
	649	Bldg. 330 Roof	-	-	0.04	0.01	0.15	0.008
	667	Pond 4 Area	-	-	-	-	0.30	0.033
Uranium & Thorium (U234, U235, U236, U238, Th228, Th230, Th232)	416	Main Process Ventilation	4.40	2.07	1.91	0.25	3.05	0.192
	332	Maintenance Welding Hood	0.24	0.05	0.77	0.03	0.16	0.009
	333	NDA Standards Hood	0.11	0.02	0.09	0.02	0.10	0.005
	421	Bldg. 100 Laundry, East	3.57	0.50	3.40	0.06	0.14	0.009
	547	Bldg. 100 Laundry, North	63.50	0.06	0.38	0.02	0.07	0.005
	646	Bldg. 110 Roof	0.12	0.02	0.12	0.02	0.11	0.004
	594	Ponds Area Compactor	3.16	0.06	4.77	0.06	0.02	0.003
	619	Ponds Area RALF: Lab Hood Exhaust	2.23	0.07	5.84	0.07	0.04	0.004
	643	Ponds Area STB Settling Tanks	57.40	5.52	14.70	0.22	2.50	0.072
L.E. Uranium	320	Cylinder Wash Operation	-	-	-	-	-	-
	354	Trash Compactor	-	-	-	-	-	-

TABLE 5.7A
STACK EFFLUENT RADIOACTIVITY RELEASED
All Units in uCi

Stack Category	Stack No.	Process Description	1990	1991	1992	1993	1994	1995
Plutonium (Pu238, Pu239, Pu240, Pu241, Am241)	27	Product Glove Boxes	1.65E-02	3.25E-02	1.94E-01	5.19E-01	8.00E-03	6.38E-01
	28	Room Cell Air	1.91E-02	1.80E-02	2.75E-02	1.03E-02	2.00E-03	6.94E-02
	29	Wet Cell Scrubber	1.11E-02	3.30E-03	7.50E-03	-	-	-
	103	Dry Boxes	1.20E-01	1.00E-01	-	-	-	-
	104	Dry Boxes	6.65E-02	4.75E-02	8.50E-02	-	-	-
	224	Dissolution Glove Boxes	7.95E-03	1.16E-02	1.30E-03	1.18E-02	4.00E-03	7.59E-02
	554	Bldg 110 Pu Lab Exhaust	7.95E-03	1.75E-02	2.00E-03	1.35E-02	1.00E-03	2.48E-02
	583	Bldg 234 Pu Lab Exhaust	4.10E-03	7.60E-09	1.19E-03	4.50E-03	1.00E-03	1.01E-02
Uranium (U234, U235, U236, U238)	185	Production Dry Boxes	3.15E-01	4.50E-01	1.49E+00	1.35E-01	2.53E-01	8.76E-02
	376	Bldg. 301 Ventilation	2.70E+00	5.45E+00	5.60E+00	6.53E+01	7.44E-01	3.11E-01
	573	Finishing Offgas	3.85E+01	3.20E+01	1.26E+01	2.80E-01	-	-
	600	Bldg. 110 R&D Lab	-	-	-	9.25E-01	1.15E+00	7.64E-01
	615	Bldg. 302 Organic Vent System	-	-	-	2.62E-01	-	9.23E-03
	649	Bldg. 330 Roof	-	-	-	-	7.58E-02	9.60E-02
	667	Pond 4 Area	-	-	-	-	-	7.23E+00
	Uranium & Thorium (U234, U235, U236, U238, Th228, Th230, Th232)	416	Main Process Ventilation	1.00E+03	1.00E+03	4.65E+02	1.00E+03	2.85E+01
332		Maintenance Welding Hood	4.55E-01	1.55E-01	-	4.10E-02	4.48E-01	1.34E-01
333		NDA Standards Hood	2.15E-01	2.15E-01	1.80E-01	1.50E-01	2.02E-01	5.19E-02
646		Bldg. 110 Roof	-	-	-	1.06E-01	1.64E-01	2.06E-02
594		Ponds Area Compactor	-	-	-	4.30E-01	4.15E-01	4.01E-03
619		Ponds Area RALF: Lab Hood Exhaust	-	-	-	4.55E-01	6.73E-01	7.37E-03
643		Ponds Area STB Settling Tanks	-	-	-	8.85E+00	1.31E+00	2.69E-02
L.E. Uranium	320	Cylinder Wash Operation	2.05E-01	-	-	-	-	-
	354	Trash Compactor	7.09E-02	-	-	-	-	-

TABLE 5.9A

ANNUAL AVERAGE SURFACE WATER ALPHA RADIOACTIVITY (pCi/L)

Note: Uranium Unrestricted Area MPC = 30,000 pCi/L

LOCATION	1990	1991	1992	1993	1994	1995
Banner Spring Branch (Upstream)	2.50	2.10	2.50	1.85	2.44	2.47
Banner Spring Branch (Downstream)	8.65	8.60	10.60	18.50	14.49	13.52
Martin Creek (Upstream at Carolina Avenue)	2.90	2.25	2.50	1.95	2.69	2.04
Martin Creek (Upstream from Banner Spring Mouth)	1.85	2.30	2.55	2.50	2.23	2.86
Martin Creek (Downstream)	5.10	5.05	5.35	6.50	6.34	6.95
Nolichucky River (Upstream)	2.80	1.00	1.85	2.55	2.77	2.40
Nolichucky River (Downstream)	2.05	2.85	2.40	1.75	2.71	1.89

TABLE 5.10B

ANNUAL AVERAGE SURFACE WATER BETA RADIOACTIVITY (pCi/L)

Note: Uranium Unrestricted Area MPC = 30,000 pCi/L

LOCATION	1990	1991	1992	1993	1994	1995
Banner Spring Branch (Upstream)	5.50	8.85	8.65	5.80	9.78	10.28
Banner Spring Branch (Downstream)	9.60	11.45	12.30	12.80	12.99	12.40
Martin Creek (Upstream at Carolina Avenue)	6.25	7.95	8.00	8.10	8.92	8.55
Martin Creek (Upstream from Banner Spring Mouth)	6.65	6.85	8.90	7.10	7.61	8.54
Martin Creek (Downstream)	7.70	9.55	9.05	8.70	9.21	10.49
Nolichucky River (Upstream)	7.20	7.05	9.80	4.70	6.91	8.37
Nolichucky River (Downstream)	6.25	6.00	10.20	6.50	8.69	7.61

TABLE 5.11B

**SUMMARY OF ISOTOPIC RADIOACTIVITY
IN
SURFACE WATER SAMPLES (DOWNSTREAM)
Units in pCi/L**

Location	U234	U235	U238	Total Pu	Total Th
Banner Spring Branch					
1990	18.42	0.43	1.64	0.27	1.36
1991	32.83	1.44	3.13	1.03	19.81
1992	18.57	0.51	2.46	1.06	1.88
1993	23.30	0.75	1.67	4.21	0.97
1994	16.60	0.50	2.47	1.19	0.49
1995	13.03	0.49	2.31	1.13	1.13
Martin Creek					
1990	9.34	0.43	0.71	0.34	0.67
1991	12.46	0.58	2.93	1.00	1.05
1992	6.61	0.34	1.09	0.85	2.37
1993	9.99	0.28	0.48	1.07	1.17
1994	7.29	0.22	0.94	0.40	0.35
1995	5.93	0.42	1.13	0.76	1.26
Nolichucky River					
1990	0.28	0.14	0.24	0.84	1.19
1991	1.94	0.27	1.45	0.96	19.14
1992	1.05	0.33	0.51	0.84	1.74
1993	0.40	0.13	0.23	0.86	1.62
1994	0.20	0.10	0.10	0.25	0.28
1995	0.46	0.18	0.31	0.46	0.69

TABLE 5.12A
GROUND WATER RADIOACTIVITY
WELL AT BURIAL GROUND
(Units in pCi/L)

Year	Alpha	Beta	U234	U235	U238	Total Pu	Total Th
1990	7.29	12.75	0.62	0.04	0.13	0.38	0.71
1991	12.90	21.24	3.75	0.34	1.77	2.69	4.85
1992	11.18	9.68	3.28	0.31	0.63	1.03	1.95
1993	2.82	3.75	1.11	0.15	0.17	0.36	0.85
1994	1.60	4.18	0.47	0.09	0.09	0.15	0.24
1995	0.94	3.22	7.42	2.87	2.98	0.05	1.07

TABLE 5.13A
GROUND WATER RADIOACTIVITY
IN VICINITY OF 6000 GALLON UNDERGROUND HOLDING TANKS
(Units in pCi/L)

Year	Alpha	Beta	U234	U235	U238
1990	56.30	48.29	0.60	0.01	0.006
1991	42.24	33.73	1.30	0.04	0.03
1992	69.83	33.18	1.08	0.02	0.02
1993	110.43	43.29	0.93	0.03	0.007

LD1A		1.66	7.20	2.39	0.14	0.15
LD2A	1994*	35.15	37.13	59.08	1.55	2.49
LD1A		1.12	7.03	0.89	0.09	0.24
LD2A	1995*	49.44	57.97	78.76	2.40	3.38

*** 6000 Gallon Tank samples no longer collected - LD1A and LD2A
Monitoring Well data provided.**

TABLE 5.14A
ANNUAL RADIOACTIVITY LEVEL
DISCHARGED TO MUNICIPAL SEWER
(Units in pCi/L)

Year	Alpha	Beta	U234	U235	U238	Total Pu	Total Th
1990	156.98	32.60	146.51	2.42	4.89	1.87	1.15
1991	136.22	39.09	117.87	2.56	8.00	2.70	7.40
1992	172.18	24.78	183.18	4.60	12.85	1.90	0.98
1993	130.23	59.15	107.13	3.14	12.27	0.97	1.72
1994	153.86	24.82	105.20	3.71	17.25	1.43	0.92
1995	54.18	11.85	44.38	1.69	6.86	0.47	1.55

TABLE 5.15B
PROCESS WATER EFFLUENT AVERAGE RADIOACTIVITY LEVELS
WASTE WATER TREATMENT FACILITY
(Units in pCi/L)

Year	Alpha	Beta	U234	U235	U238	Th234	Tc99
1990	821.58	143.41	1243.58	15.82	27.46	324.76	52.63
1991	1459.58	506.23	2501.92	24.59	10.64	4190.60	169.79
1992	440.17	285.92	471.87	6.14	3.47	5482.40	88.24
1993	660.00	1885.72	587.50	15.73	30.30	60.53	3156.83
1994	167.68	78.15	164.38	6.84	39.72	190.49	74.90
1995	145.46	93.45	122.92	3.43	16.81	142.28	59.11

TABLE 5.16B

SUMMARY OF COOLING WATER DISCHARGE RADIOACTIVITY

BUILDING 233

Units In pCi/L

MEASURED VALUE

YEAR	ALPHA	BETA
1990	3.74	6.59
1991	6.62	9.49
1992	4.20	10.43
1993*	3.97	8.49
1994	*	*
1995	*	*

* Cooling Water Discharge ceased in October 1993.

TABLE 5.18B

SUMMARY OF STREAM SEDIMENT, SOIL AND VEGETATION RADIOACTIVITY

LOCATION/SAMPLE TYPE	ALPHA (pCVG)						BETA (pCVG)					
	1990	1991	1992	1993	1994	1995	1990	1991	1992	1993	1994	1995
Banner Spring Branch Upstream/ Sediment	0.49	1.51	3.08	6.58	1.66	1.81	0.37	1.54	3.40	3.63	2.18	2.02
Banner Spring Branch Downstream/ Sediment	11.40	14.61	47.23	48.32	50.75	60.83	6.00	8.91	28.05	21.18	28.16	35.06
Martin Creek Upstream/ Sediment (Carolina Avenue)	0.19	0.57	1.13	1.15	0.92	1.25	0.22	1.33	2.05	1.76	2.04	2.15
Martin Creek Downstream/ Sediment	0.87	4.40	8.00	5.06	12.30	5.90	0.49	3.69	4.17	3.25	6.14	3.96
Nolichucky River Upstream/ Sediment	0.19	0.79	1.39	1.22	1.09	1.48	0.21	1.12	2.41	2.26	1.69	2.46
Nolichucky River Downstream/ Sediment	0.20	0.63	1.46	0.94	1.37	1.25	0.21	1.27	2.41	2.33	2.51	2.16
Burial Ground (N) Soil	10.60	6.98	7.65	18.11	13.38	7.90	4.65	15.25	14.57	22.93	6.63	5.20
Little Mtn.(approx. .6 Km N) Soil	5.59	6.93	5.68	4.46	4.64	4.52	3.83	10.99	11.78	11.22	3.64	4.00
Carolina Ave.(approx. 150 Km E) Soil	4.66	6.13	4.89	4.42	3.23	3.19	3.27	11.29	10.89	8.50	2.95	3.11
Asheville Hwy. (approx. 8 Km S) Soil	3.45	4.21	2.87	5.06	2.35	1.95	2.22	7.53	7.94	11.06	8.14	7.58
NFS Mound (approx. 300m N) Soil	56.24	79.30	30.61	6.86	7.42	20.74	28.98	81.92	33.50	14.78	5.20	13.49
Little Mtn.(approx. 0.6 Km N) Vegetation	0.07	0.33	0.66	0.70	0.82	0.83	0.15	0.78	2.59	1.64	1.73	1.61
Carolina Ave.(approx. 150 Km E) Vegetation	0.10	0.50	0.78	1.10	0.98	1.00	0.13	0.89	2.50	1.72	2.32	2.17
Asheville Hwy. (approx. 8 Km S) Vegetation	0.10	0.35	0.55	0.98	1.20	0.68	0.16	0.78	3.47	1.54	2.60	1.75
NFS Mound (approx. 300m N) Vegetation	0.09	0.46	0.90	0.75	0.79	0.91	0.14	0.64	2.60	1.58	2.54	1.87
Burial Ground Vegetation	0.08	0.12	0.49	1.30	1.72	0.99	0.15	0.72	2.17	1.97	2.46	1.43

TABLE 5.19B

TLD SUMMARY
Annual Dose
Units: Millirem

TLD Location	1990	1991	1992	1993	1994	1995
Carolina Avenue Sample Station #323	<60	<40	<60	<40	<60	<40
Little Mountain Sample Station #322	<40	<40	<60	<40	<60	<40
Asheville Highway Sample Station #324	<40	<40	<70	<40	<90	<40
NE Corner Security Fence	<50	<40	<60	<40	<60	<40
Fence N of Plant near Martin Creek	<50	<30	<60	<40	<60	<40
NW Corner Security Fence	<330	<40	<60	<30	<60	<40
SW Corner Security Fence	<30	<140	<60	<40	<80	<40
Telephone Pole South of Plant	<40	<40	<60	<40	<80	<40
S Perimeter Sample Station	<70	<40	<70	<40	<120	<40
E Perimeter Sample Station	<40	<40	<60	<40	<60	<40
N Perimeter Sample Station	<540	<70	<90	<60	<110	<40
Fence High Voltage Transformer near Building 234	<80	<60	<70	<40	<80	<40
W Perimeter Sample Station	<60	<40	<60	<40	<90	<40

NOTE: Less than (<) indicates values which include results at detection limit.