APPENDIX C-2
SUMMARY OF AIR MONITORING DATA

TABLE C-2.1.1

1988 AIRBORNE RADIOACTIVE EFFLUENT ACTIVITY MONTHLY TOTALS
FROM MAIN VENTILATION STACK (ANSTACK)
(CURIES)

MONTH	ALPHA	BETA	TRITIUM (H-3)
JAN	2.38 ± 0.9 E-07	1.35 ± 0.1 E-05	4.05 ± 0.4 E-02
FEB	1.72 ± 0.7 E-07	1.49 ± 0.1 E-05	2.49 ± 0.3 E-02
MAR	1.99 ± 0.7 E-07	8.88 ± 0.4 E-06	2.13 ± 0.2 E-02
APR	3.59 ± 1.1 E-07	1.03 ± 0.1 E-05	3.16 ± 0.3 E-02
MAY	1.22 ± 0.6 E-07	4.19 ± 0.3 E-06	1.11 ± 0.1 E-02
JUN	4.36 ± 1.2 E-07	1.23 ± 0.1 E-05	7.23 ± 0.8 E-03
JUL	2.56 ± 0.9 E-07	9.80 ± 0.6 E-06	1.63 ± 0.2 E-02
AUG	2.72 ± 0.9 E-07	1.02 ± 0.1 E-05	1.49 ± 0.2 E-02
SEP	1.79 ± 0.7 E-07	7.08 ± 0.7 E-06	1.55 ± 0.2 E-02
OCT	1.84 ± 0.8 E-07	6.54 ± 0.4 E-06	1.43 ± 0.2 E-02
NOV	3.02 ± 0.9 E-07	9.13 ± 0.7 E-06	1.60 ± 0.2 E-02
DEC	3.51 ± 1.1 E-07	8.07 ± 0.6 E-06	2.77 ± 0.3 E-02
TOTAL FOR 1988	3.07 ± 0.3 E-06	1.15 ± 0.03E-04	2.41 ± 0.1 E-01

TABLE C-2.1.2

1988 AIRBORNE RADIOACTIVE EFFLUENT ACTIVITY QUARTERLY TOTALS
FROM MAIN VENTILATION STACK (ANSTACK)
(CURIES)

	CO-60	SR-90	I-129	CS-134	CS-137	EU-154
1ST QTR	<9.8 E-08	1.02 ± 0.1 E-05	1.01 ± 0.1 E-05	<8.7 E-08	1.36 ± 0.03 E-05	<2.2 E-07
2ND QTR	7.73 ± 5.6 E-08	6.35 ± 0.7 E-06	1.34 ± 0.1 E-05	<6.6 E-08	1.04 ± 0.02 E-05	<2.1 E-07
3RD QTR	<1.5 E-07	7.37 ± 0.7 E-06	1.73 ± 0.1 E-05	<8.6 E-08	9.30 ± 1.0 E-06	<1.2 E-07
4TH QTR	<1.2 E-07	6.35 ± 0.6 E-06	7.26 ± 0.5 E-06	<9.7 E-08	6.70 ± 0.7 E-06	<1.2 E-07
1988 TOTALS	<2.2 E-07	3.03 ± 0.2 E-05	4.81 ± 0.2 E-05	<1.7 E-07	4.00 ± 0.1 E-05	<3.5 E-07

	U-234	U-235	U-238	PU-238	PU-239	AM-241
1ST QTR	8.40 ± 2.0 E-09	<2.3 E-10	6.81 ± 1.9 E-09	7.14 ± 0.6 E-08	1.01 ± 0.1 E-07	2.19 ± 0.3 E-06
2ND QTR	7.07 ± 1.7 E-09	<1.0 E-10	7.81 ± 1.7 E-09	1.09 ± 0.1 E-07	1.35 ± 0.1 E-07	3.00 ± 0.4 E-07
3RD QTR	<5.1 E-09	<5.1 E-09	6.51 ± 4.0 E-09	7.67 ± 2.3 E-08	9.06 ± 2.8 E-08	2.79 ± 1.9 E-09
4TH QTR	7.53 ± 4.0 E-09	<4.6 E-09	8.56 ± 4.2 E-09	5.51 ± 1.5 E-08	5.70 ± 1.5 E-08	2.91 ± 0.4 E-07
1988 TOTALS	2.81 ± 0.7 E-08	<6.9 E-09	2.97 ± 0.6 E-08	3.12 ± 0.3 E-07	3.84 ± 0.3 E-07	2.78 ± 0.3 E-06

TABLE C-2.1.3

COMPARISON OF 1988 MAIN STACK EXHAUST RADIOACTIVITY CONCENTRATIONS WITH DOE GUIDELINES

ISOTOPE	TOTAL μCi RELEASED[a]	AVG CONC (μCi/mL)	DCG (μCi/mL)	PERCENT OF DCG
Alpha	3.07 E+00	3.4 E-15	NA[b]	--
Beta	1.15 E+02	1.3 E-13	NA[b]	--
H-3	2.41 E+05	2.7 E-04[e]	1 E-07	0.3
Co-60	<2.2 E-01	<2.5 E-16	8 E-11	<0.1
Sr-90	3.03 E+01	3.4 E-14	9 E-12	0.4
I-129	4.81 E+01	5.4 E-14	7 E-11	<0.1
Cs-134	<1.7 E-01	<1.9 E-16	2 E-10	<0.1
Cs-137	4.00 E+01	4.5 E-14	4 E-10	<0.1
Eu-154	<3.5 E-01	<3.9 E-16	5 E-11	<0.1
U-234[c]	2.81 E-02	3.1 E-17	9 E-14	<0.1
U-235[c]	<6.9 E-03	<7.7 E-18	1 E-13	<0.1
U-238[c]	2.97 E-02	3.3 E-17	1 E-13	<0.1
Pu-238	3.12 E-01	3.5 E-16	3 E-14	2.2
Pu-239	3.84 E-01	4.3 E-16	2 E-14	2.2
Am-241	2.78 E+00	3.1 E-15	2 E-14	15.5

				20.9[d]

Notes:
[a] Total volume released at 60,000 cfm = 8.95 E+14 mL/yr.
[b] Derived Concentration Guides (DCG) are not specified for gross alpha or beta activity.
[c] Total U μg = 8.58 E+4; Average U pg/mL = 9.59 E-05
[d] Total percent DCG for specific measured radionuclides. The percent DCG at the site boundary location with the highest annual average concentration is only 0.000089.
[e] Tritium reported in pCi/mL.
General: DCGs are listed for reference only. They are applicable to the average concentrations at the site boundary and not to the stack concentrations, as might be inferred from their inclusion in this table.

TABLE C-2.1.4

1988 AIRBORNE RADIOACTIVE EFFLUENT ACTIVITY MONTHLY TOTALS
FROM CEMENT SOLIDIFICATION SYSTEM VENTILATION STACK (ANCSSTK)
(CURIES)

MONTH	ALPHA	BETA
JAN	<6.5 E-09	<2.4 E-08
FEB	<4.3 E-09	<1.9 E-08
MAR	<4.6 E-09	<1.8 E-08
APR	<7.1 E-09	3.92 ± 2.3 E-08
MAY	<5.4 E-09	3.85 ± 1.7 E-08
JUN	<5.4 E-09	3.07 ± 1.6 E-08
JUL	<7.8 E-09	2.90 ± 1.9 E-08
AUG	<5.1 E-09	4.06 ± 1.8 E-08
SEP	<5.5 E-09	2.52 ± 1.7 E-08
OCT	<6.4 E-09	6.10 ± 2.3 E-08
NOV	<5.7 E-09	5.81 ± 1.9 E-08
DEC	<8.6 E-09	8.98 ± 2.7 E-08
TOTAL FOR 1988	<2.1 E-08	4.73 ± 0.7 E-07

TABLE C-2.1.5

1988 AIRBORNE RADIOACTIVE EFFLUENT ACTIVITY QUARTERLY TOTALS
FROM CEMENT SOLIDIFICATION SYSTEM VENTILATION STACK (ANCSSTK)
(CURIES)

	CO-60	SR-90	I-129	CS-134	CS-137	EU-154
1ST QTR	<2.0 E-08	8.82 ± 2.1 E-09	<6.2 E-09	<1.3 E-08	<1.7 E-08	<5.6 E-08
2ND QTR	<1.4 E-08	<1.7 E-09	<2.5 E-08	<1.3 E-08	<1.5 E-08	<3.1 E-08
3RD QTR	<2.5 E-08	<8.7 E-09	<1.8 E-08	<1.5 E-08	<1.4 E-08	<1.7 E-08
4TH QTR	<3.2 E-08	4.68 ± 0.9 E-09	<1.6 E-08	<2.1 E-08	<2.9 E-08	<1.9 E-08
1988 TOTALS	<4.7 E-08	2.24 ± 0.9 E-08	<3.5 E-08	<3.2 E-08	<3.9 E-08	<6.9 E-08

	U-234	U-235	U-238	PU-238	PU-239	AM-241
1ST QTR	2.07 ± 0.4 E-09	<1.5 E-10	1.39 ± 0.3 E-09	<4.1 E-11	1.22 ± 1.2 E-10	<1.1 E-09
2ND QTR	1.65 ± 0.4 E-09	<8.6 E-11	1.88 ± 0.4 E-09	<7.9 E-11	<6.2 E-11	<1.4 E-11
3RD QTR	2.36 ± 1.1 E-09	<1.2 E-09	1.63 ± 1.0 E-09	<2.9 E-10	<2.9 E-10	<6.7 E-10
4TH QTR	1.59 ± 0.9 E-09	<1.1 E-09	1.59 ± 0.9 E-09	<2.4 E-10	<2.4 E-10	<1.1 E-09
1988 TOTALS	7.67 ± 1.5 E-09	<1.6 E-09	6.49 ± 1.4 E-09	<3.9 E-10	<4.0 E-10	<1.7 E-09

TABLE C-2.1.6

1988 AIRBORNE RADIOACTIVE EFFLUENT ACTIVITY MONTHLY TOTALS
FROM CONTACT SIZE REDUCTION FACILITY VENTILATION STACK (ANCSRFK)
(CURIES)

MONTH	ALPHA	BETA
JAN	<3.9 E-09	<1.5 E-08
FEB	<3.0 E-09	<1.2 E-08
MAR	<4.1 E-09	1.38 ± 1.3 E-08
APR	<4.3 E-09	5.95 ± 1.8 E-08
MAY	<4.2 E-09	5.13 ± 1.4 E-08
JUN	<3.8 E-09	4.91 ± 1.4 E-08
JUL	<4.3 E-09	7.77 ± 1.9 E-08
AUG	<2.9 E-09	4.36 ± 1.5 E-08
SEP	<4.0 E-09	3.56 ± 1.3 E-08
OCT	<5.5 E-09	6.25 ± 1.7 E-08
NOV	<3.8 E-09	5.44 ± 1.4 E-08
DEC	<5.1 E-09	7.55 ± 1.8 E-08
TOTAL FOR 1988	<1.4 E-08	5.50 ± 0.5 E-07

TABLE C-2.1.7

1988 AIRBORNE RADIOACTIVE EFFLUENT ACTIVITY QUARTERLY TOTALS
FROM CONTACT SIZE REDUCTION FACILITY VENTILATION STACK (ANCSRFK)
(CURIES)

	CO-60	SR-90	I-129	CS-134	CS-137	EU-154
1ST QTR	<7.9 E-09	<2.0 E-09	<4.5 E-09	<5.9 E-09	<7.7 E-09	<2.0 E-08
2ND QTR	<9.2 E-09	<1.1 E-09	<1.5 E-08	<6.6 E-09	<7.7 E-09	<2.5 E-08
3RD QTR	<1.1 E-08	<2.1 E-09	<7.6 E-09	<8.5 E-09	<7.6 E-09	<7.5 E-09
4TH QTR	<1.4 E-08	<5.8 E-10	<7.7 E-09	<1.1 E-08	<1.2 E-08	<8.9 E-09
1988 TOTALS	<2.2 E-08	<3.2 E-09	<1.9 E-08	<1.6 E-08	<1.8 E-08	<3.4 E-08

	U-234	U-235	U-238	PU-238	PU-239	AM-241
1ST QTR	7.19 ± 1.7 E-10	<3.1 E-11	6.34 ± 1.6 E-10	<2.0 E-11	<9.8 E-12	<2.8 E-10
2ND QTR	6.23 ± 1.8 E-10	1.01 ± 1.0 E-10	7.79 ± 1.8 E-10	<1.2 E-11	5.35 ± 4.7 E-11	1.00 ± 0.7 E-10
3RD QTR	1.19 ± 0.5 E-09	<5.4 E-10	6.23 ± 4.2 E-10	<1.6 E-10	<1.6 E-10	<2.5 E-10
4TH QTR	1.16 ± 0.6 E-09	<6.4 E-10	<6.4 E-10	<1.5 E-10	<1.5 E-10	<6.1 E-10
1988 TOTALS	3.69 ± 0.8 E-09	<8.4 E-10	2.68 ± 0.8 E-09	<2.2 E-10	<2.2 E-10	<7.2 E-10

TABLE C-2.1.8

1988 AIRBORNE RADIOACTIVE EFFLUENT ACTIVITY MONTHLY TOTALS
FROM SUPERNATANT TREATMENT SYSTEM VENTILATION STACK (ANSTSTK)
(CURIES)

MONTH	ALPHA	BETA
JAN	***NOT IN OPERATION***	
FEB	***NOT IN OPERATION***	
MAR	***NOT IN OPERATION***	
APR	***NOT IN OPERATION***	
MAY	<1.0 E-09	5.86 ± 2.6 E-09
JUN	<7.0 E-09	5.39 ± 1.8 E-08
JUL	<2.5 E-09	2.64 ± 0.9 E-08
AUG	<2.0 E-09	1.06 ± 0.6 E-08
SEP	<2.2 E-09	6.21 ± 5.5 E-09
OCT	<2.1 E-09	1.02 ± 0.6 E-08
NOV	<1.3 E-09	7.29 ± 5.1 E-09
DEC	<2.2 E-09	1.01 ± 0.7 E-08
TOTAL FOR 1988	<8.7 E-09	1.31 ± 0.2 E-07

TABLE C-2.1.9

1988 AIRBORNE RADIOACTIVE EFFLUENT ACTIVITY QUARTERLY TOTALS
FROM SUPERNATANT TREATMENT SYSTEM VENTILATION SYSTEM (ANSTSTK)
(CURIES)

	H-3*	CO-60	SR-90	I-129	CS-134	CS-137	EU-154
1ST QTR				***NOT IN OPERATION***			
2ND QTR	<1.3 E-02	<5.2 E-09	<6.8 E-10	2.80 ± 0.3 E-07	<3.6 E-09	<3.6 E-09	<9.0 E-09
3RD QTR	ND	<7.2 E-09	<1.5 E-09	1.52 ± 0.1 E-07	<4.6 E-09	<4.1 E-09	<4.4 E-09
4TH QTR	ND	<8.3 E-09	<5.9 E-10	2.66 ± 0.2 E-07	<6.7 E-09	<7.2 E-09	<5.7 E-09
1988 TOTALS	<1.3 E-02	<1.2 E-08	<1.7 E-09	6.98 ± 0.4 E-07	<8.9 E-09	<9.0 E-09	<1.2 E-08

	U-234	U-235	U-238	PU-238	PU-239	AM-241
1ST QTR			***NOT IN OPERATION***			
2ND QTR	3.21 ± 1.0 E-10	<5.2 E-11	3.75 ± 1.0 E-10	<5.6 E-12	<3.2 E-11	<3.7 E-12
3RD QTR	4.75 ± 2.9 E-10	<3.7 E-10	6.62 ± 3.4 E-10	8.49 ± 5.8 E-11	<6.6 E-11	<8.8 E-10
4TH QTR	5.18 ± 2.8 E-10	<3.1 E-10	3.43 ± 2.3 E-10	<7.0 E-11	<7.0 E-11	1.92 ± 0.5 E-09
1988 TOTALS	1.31 ± 0.4 E-09	<4.9 E-10	1.38 ± 0.4 E-09	1.55 ± 0.9 E-10	<1.0 E-10	2.80 ± 1.0 E-09

ND - No Discharge detectable. Due to dry exhaust air conditions, no moisture could be collected for H-3 analysis.

TABLE C-2.1.10

1988 AIRBORNE RADIOACTIVE EFFLUENT ACTIVITY MONTHLY TOTALS
FROM SUPERCOMPACTOR VENTILATION STACK (ANSUPCV)
(CURIES)

MONTH	ALPHA	BETA
JAN	6.93 ± 1.8 E-10	3.38 ± 0.2 E-08
FEB	4.10 ± 1.7 E-10	4.33 ± 0.2 E-08
MAR	4.37 ± 1.8 E-10	4.62 ± 0.2 E-08
APR	3.05 ± 2.0 E-10	2.80 ± 0.2 E-08
MAY	<1.5 E-10	2.78 ± 0.5 E-09
JUN	<1.0 E-10	1.14 ± 0.4 E-09
JUL	<1.6 E-10	1.82 ± 0.5 E-09
AUG	4.55 ± 2.7 E-10	7.92 ± 0.9 E-09
SEP	5.89 ± 2.6 E-10	6.54 ± 0.7 E-09
OCT	2.97 ± 2.4 E-10	1.36 ± 0.5 E-09
NOV	<9.9 E-11	7.10 ± 3.3 E-10
DEC	<9.8 E-11	1.61 ± 0.5 E-09
TOTAL FOR 1988	3.79 ± 0.6 E-09	1.75 ± 0.1 E-07

TABLE C-2.1.11

1988 AIRBORNE RADIOACTIVE EFFLUENT ACTIVITY QUARTERLY TOTALS
FROM SUPERCOMPACTOR VENTILATION SYSTEM (ANSUPCV)
(CURIES)

	Co-60	Sr-90	Cs-134	Cs-137	Eu-154
1ST QTR			***DATA NOT AVAILABLE***		
2ND QTR	5.27 ± 1.7 E-09	3.12 ± 1.4 E-10	<1.3 E-09	2.28 ± 0.2 E-08	<4.3 E-09
3RD QTR	<2.6 E-09	<6.2 E-10	<1.3 E-09	4.72 ± 1.4 E-09	<1.3 E-09
4TH QTR	<2.4 E-09	<9.2 E-11	<1.5 E-09	<2.2 E-09	<1.5 E-09
1988 TOTALS	8.77 ± 3.9 E-09	9.39 ± 6.4 E-10	<2.4 E-09	2.97 ± 0.3 E-08	<4.7 E-09

	U-234	U-235	U-238	Pu-238	Pu-239	Am-241
1ST QTR			***DATA NOT AVAILABLE***			
2ND QTR	<3.3 E-11	<5.1 E-12	<2.5 E-11	3.48 ± 1.7 E-11	1.65 ± 0.4 E-10	1.98 ± 0.3 E-10
3RD QTR	<1.1 E-10	<1.1 E-10	<1.1 E-10	<2.2 E-11	2.59 ± 1.9 E-11	<8.5 E-11
4TH QTR	<9.6 E-11	<9.6 E-11	<9.6 E-11	<2.3 E-11	<2.3 E-11	<1.1 E-10
1988 TOTALS	<1.5 E-10	<1.5 E-10	<1.5 E-10	6.66 ± 3.6 E-11	2.14 ± 0.5 E-11	3.37 ± 1.4 E-10

TABLE C-2.2.1
1988 RADIOACTIVITY CONCENTRATIONS IN AIRBORNE PARTICULATE
AT FOX VALLEY AIR SAMPLER (AFFXVRD)
μCi/mL

	ALPHA	BETA	SR-90	CS-137
JAN	9.55 ± 8.9 E-16	1.75 ± 0.4 E-14		
FEB	<9.1 E-16	1.65 ± 0.4 E-14		
MAR	9.63 ± 9.5 E-16	1.00 ± 0.3 E-14		
1ST QTR			<6.5 E-17	<5.8 E-16
APR	1.03 ± 0.9 E-15	1.70 ± 0.4 E-14		
MAY	7.96 ± 7.9 E-16	1.46 ± 0.3 E-14		
JUNE	8.95 ± 7.4 E-16	1.77 ± 0.3 E-14		
2ND QTR			3.95 ± 2.5 E-17	<5.7 E-16
JUL	7.99 ± 7.1 E-16	1.99 ± 0.3 E-14		
AUG	6.93 ± 6.6 E-16	1.93 ± 0.3 E-14		
SEP	8.16 ± 7.1 E-16	1.45 ± 0.3 E-14		
3RD QTR			<1.9 E-16	<4.9 E-16
OCT	<5.4 E-16	1.28 ± 0.3 E-14		
NOV	9.26 ± 7.4 E-16	2.07 ± 0.3 E-14		
DEC	9.91 ± 7.7 E-16	2.70 ± 0.3 E-14		
4TH QTR			<6.4 E-17	<3.7 E-16

TABLE C-2.2.2
1988 RADIOACTIVITY CONCENTRATIONS IN AIRBORNE PARTICULATE
AT ROCK SPRINGS ROAD AIR SAMPLER (AFRSPRD)
μCi/mL

	ALPHA	BETA	SR-90	I-129	CS-137
JAN	1.16 ± 0.9 E-15	2.00 ± 0.4 E-14			
FEB	<8.5 E-16	1.88 ± 0.4 E-14			
MAR	<7.8 E-16	1.24 ± 0.3 E-14			
1ST QTR			<5.8 E-17	<4.7 E-16	<3.8 E-16
APR	<6.3 E-16	1.89 ± 0.3 E-14			
MAY	<7.4 E-16	1.84 ± 0.3 E-14			
JUNE	1.16 ± 1.1 E-15	2.50 ± 0.4 E-14			
2ND QTR			<4.2 E-17	<9.8 E-16	<6.1 E-16
JUL	1.13 ± 0.9 E-15	2.64 ± 0.4 E-14			
AUG	1.25 ± 1.2 E-15	2.94 ± 0.5 E-14			
SEP	1.77 ± 1.5 E-15	2.73 ± 0.5 E-14			
3RD QTR			<2.7 E-16	<5.5 E-16	<5.7 E-16
OCT	<2.0 E-15	4.19 ± 0.8 E-14			
NOV	8.09 ± 7.9 E-16	2.55 ± 0.4 E-14			
DEC	1.14 ± 0.8 E-15	2.92 ± 0.4 E-14			
4TH QTR			<7.1 E-17	<3.3 E-16	<6.7 E-16

TABLE C-2.2.3
1988 RADIOACTIVITY CONCENTRATIONS IN AIRBORNE PARTICULATE
AT ROUTE 240 AIR SAMPLER (AFRT240)
μCi/mL

	ALPHA	BETA	SR-90	CS-137
JAN	<9.1 E-16	1.76 ± 0.4 E-14		
FEB	<7.4 E-16	1.74 ± 0.4 E-14		
MAR	9.66 ± 9.5 E-16	1.11 ± 0.4 E-14		
1ST QTR			<6.8 E-17	<6.2 E-16
APR	<7.3 E-16	2.13 ± 0.4 E-14		
MAY	<8.2 E-16	1.82 ± 0.4 E-14		
JUNE	<9.5 E-16	1.76 ± 0.4 E-14		
2ND QTR			<4.6 E-17	<5.4 E-16
JUL	1.14 ± 1.0 E-15	2.23 ± 0.4 E-14		
AUG	<9.0 E-16	2.04 ± 0.4 E-14		
SEP	<2.5 E-15	2.26 ± 1.0 E-14		
3RD QTR			<2.6 E-16	<5.5 E-16
OCT	<7.4 E-16	1.49 ± 0.3 E-14		
NOV	7.28 ± 7.1 E-16	2.37 ± 0.4 E-14		
DEC	9.76 ± 8.2 E-16	2.92 ± 0.4 E-14		
4TH QTR			<6.0 E-17	<5.6 E-16

TABLE C-2.2.4
1988 RADIOACTIVITY CONCENTRATIONS IN AIRBORNE PARTICULATE
AT SPRINGVILLE AIR SAMPLER (AFSPRVL)
μCi/mL

	ALPHA	BETA	SR-90	CS-137
JAN	<7.3 E-16	1.98 ± 0.4 E-14		
FEB	1.05 ± 0.9 E-15	2.17 ± 0.4 E-14		
MAR	7.22 ± 5.9 E-16	1.06 ± 0.3 E-14		
1ST QTR			<7.6 E-17	<5.9 E-16
APR	9.98 ± 8.2 E-16	2.06 ± 0.3 E-14		
MAY	<6.8 E-16	1.58 ± 0.3 E-14		
JUNE	1.16 ± 0.9 E-15	2.05 ± 0.3 E-14		
2ND QTR			5.19 ± 2.4 E-17	<5.0 E-16
JUL	8.95 ± 7.4 E-16	1.93 ± 0.3 E-14		
AUG	9.94 ± 7.6 E-16	1.79 ± 0.3 E-14		
SEP	<7.3 E-16	1.66 ± 0.3 E-14		
3RD QTR			<1.7 E-16	<4.9 E-16
OCT	7.70 ± 7.7 E-16	1.75 ± 0.3 E-14		
NOV	1.12 ± 0.8 E-15	2.46 ± 0.4 E-14		
DEC	1.79 ± 1.1 E-15	3.41 ± 0.4 E-14		
4TH QTR			<4.4 E-17	<4.7 E-16

TABLE C-2.2.5
1988 RADIOACTIVITY CONCENTRATIONS IN AIRBORNE PARTICULATE
AT THOMAS CORNERS AIR SAMPLER (AFTCORD)
μCi/mL

	ALPHA	BETA	SR-90	CS-137
JAN	1.10 ± 0.9 E-15	1.90 ± 0.4 E-14		
FEB	<8.0 E-16	1.73 ± 0.4 E-14		
MAR	<7.3 E-16	1.11 ± 0.3 E-14		
1ST QTR			<8.1 E-17	<4.7 E-16
APR	1.20 ± 1.1 E-15	2.04 ± 0.4 E-14		
MAY	1.26 ± 1.0 E-15	1.79 ± 0.4 E-14		
JUNE	1.13 ± 0.8 E-15	1.83 ± 0.3 E-14		
2ND QTR			<3.8 E-17	<5.4 E-16
JUL	1.14 ± 0.8 E-15	1.90 ± 0.3 E-14		
AUG	8.78 ± 7.9 E-16	1.55 ± 0.3 E-14		
SEP	<7.4 E-16	1.42 ± 0.3 E-14		
3RD QTR			<3.3 E-16	<4.5 E-16
OCT	<8.0 E-16	1.36 ± 0.3 E-14		
NOV	6.28 ± 5.6 E-16	2.30 ± 0.3 E-14		
DEC	9.99 ± 7.0 E-16	2.54 ± 0.3 E-14		
4TH QTR			<4.8 E-17	<4.7 E-16

TABLE C-2.2.6
1988 RADIOACTIVITY CONCENTRATIONS IN AIRBORNE PARTICULATE
AT WEST VALLEY AIR SAMPLER (AFWEVAL)
μCi/mL

	ALPHA	BETA	SR-90	CS-137
JAN	<7.3 E-16	1.99 ± 0.3 E-14		
FEB	8.45 ± 7.8 E-16	1.71 ± 0.3 E-14		
MAR	1.05 ± 0.8 E-15	1.26 ± 0.3 E-14		
1ST QTR			<7.0 E-17	<3.8 E-16
APR	<5.4 E-16	1.81 ± 0.3 E-14		
MAY	1.07 ± 0.8 E-15	1.55 ± 0.3 E-14		
JUNE	1.26 ± 0.9 E-15	1.89 ± 0.3 E-14		
2ND QTR			4.05 ± 2.0 E-17	<4.1 E-16
JUL	8.52 ± 7.6 E-16	2.21 ± 0.3 E-14		
AUG	8.49 ± 6.9 E-16	2.10 ± 0.3 E-14		
SEP	<6.2 E-16	1.63 ± 0.3 E-14		
3RD QTR			<1.8 E-16	<4.7 E-16
OCT	6.89 ± 6.8 E-16	1.63 ± 0.3 E-14		
NOV	1.29 ± 0.8 E-15	2.29 ± 0.3 E-14		
DEC	9.09 ± 7.5 E-16	2.87 ± 0.4 E-14		
4TH QTR			<3.9 E-17	<6.1 E-16

TABLE C-2.2.7
1988 RADIOACTIVITY CONCENTRATIONS IN AIRBORNE PARTICULATE
AT GREAT VALLEY AIR SAMPLER (AFGRVAL)
μCi/mL

	ALPHA	BETA	SR-90	I-129	CS-137
JAN	1.16 ± 1.0 E-15	2.35 ± 0.4 E-14			
FEB	1.40 ± 1.2 E-15	2.17 ± 0.4 E-14			
MAR	<7.3 E-16	1.58 ± 0.4 E-14			
1ST QTR			7.96 ± 3.9 E-17	<4.4 E-16	<4.0 E-16
APR	1.01 ± 0.8 E-15	2.00 ± 0.3 E-14			
MAY	1.09 ± 0.9 E-15	2.00 ± 0.3 E-14			
JUNE	1.03 ± 0.9 E-15	2.06 ± 0.3 E-14			
2ND QTR			<3.5 E-17	<7.0 E-17	<6.0 E-16
JUL	8.61 ± 6.9 E-16	2.02 ± 0.3 E-14			
AUG	8.27 ± 7.0 E-16	2.19 ± 0.3 E-14			
SEP	6.40 ± 6.2 E-16	1.70 ± 0.3 E-14			
3RD QTR			<2.0 E-16	<3.5 E-16	<5.0 E-16
OCT	7.85 ± 6.7 E-16	1.77 ± 0.3 E-14			
NOV	9.49 ± 7.4 E-16	2.16 ± 0.3 E-14			
DEC	1.79 ± 1.0 E-15	2.85 ± 0.4 E-14			
4TH QTR			<4.4 E-17	<3.8 E-16	<5.8 E-16

TABLE C-2.2.8
1988 RADIOACTIVITY CONCENTRATIONS IN AIRBORNE PARTICULATE
AT DUNKIRK AIR SAMPLER (AFDNKRK)
μCi/mL

	ALPHA	BETA	SR-90	CS-137
JAN	<7.1 E-16	1.43 ± 0.3 E-14		
FEB	9.15 ± 7.7 E-16	1.56 ± 0.3 E-14		
MAR	7.03 ± 6.4 E-16	8.93 ± 2.6 E-15		
1ST QTR			1.28 ± 0.3 E-16	<4.0 E-16
APR	5.84 ± 5.8 E-16	1.56 ± 0.3 E-14		
MAY	7.08 ± 6.6 E-16	1.39 ± 0.3 E-14		
JUNE	1.09 ± 7.9 E-15	1.61 ± 0.3 E-14		
2ND QTR			<3.9 E-17	<4.8 E-16
JUL	1.82 ± 1.1 E-15	2.42 ± 0.4 E-14		
AUG	1.12 ± 0.9 E-15	2.66 ± 0.4 E-14		
SEP	<7.9 E-16	2.19 ± 0.4 E-14		
3RD QTR			<2.0 E-16	<5.7 E-16
OCT	1.07 ± 0.9 E-15	2.21 ± 0.4 E-14		
NOV	1.13 ± 0.7 E-15	2.55 ± 0.4 E-14		
DEC	1.82 ± 1.1 E-15	3.41 ± 0.4 E-14		
4TH QTR			4.89 ± 2.9 E-17	<8.2 E-16

TABLE C-2.2.9

1988 RADIOACTIVITY CONCENTRATIONS IN AIRBORNE PARTICULATE

AT DUTCH HILL AIR SAMPLER (AFBOEHN)

μCi/mL

	ALPHA	BETA	SR-90	CS-137
JAN	<8.0 E-16	1.55 ± 0.3 E-14		
FEB	7.62 ± 6.9 E-16	1.51 ± 0.3 E-14		
MAR	8.86 ± 6.7 E-16	9.06 ± 2.4 E-15		
1ST QTR			<4.8 E-17	<4.1 E-16
APR	<5.5 E-16	1.41 ± 0.3 E-14		
MAY	9.14 ± 6.8 E-16	1.24 ± 0.2 E-14		
JUNE	1.07 ± 1.0 E-15	1.97 ± 0.4 E-14		
2ND QTR			<3.1 E-17	<4.6 E-16
JUL	<2.4 E-15	2.82 ± 0.8 E-14		
AUG	<1.8 E-15	2.50 ± 0.7 E-14		
SEP	<6.5 E-16	1.47 ± 0.3 E-14		
3RD QTR			<4.0 E-16	<3.1 E-16
OCT	<8.5 E-16	1.61 ± 0.3 E-14		
NOV	1.13 ± 0.8 E-15	2.30 ± 0.4 E-14		
DEC	1.03 ± 0.7 E-15	2.53 ± 0.3 E-14		
4TH QTR			<4.3 E-17	<7.4 E-16

TABLE C-2.3.1

RADIOACTIVITY IN FALLOUT DURING 1988
(nCi/m^2/mo)

DUTCH HILL (AFDHFOP)

MONTH - 1988	GROSS ALPHA	GROSS BETA	H-3 (μCi/mL)
JANUARY	9.5 E-03	8.0 E-02	<1.0 E-07
FEBRUARY	2.4 E-02	1.3 E-01	<1.0 E-07
MARCH	5.4 E-02	3.5 E-01	<1.0 E-07
APRIL	4.8 E-02	4.9 E-01	<1.0 E-07
MAY	5.4 E-02	3.7 E-01	1.55 ± 1.2 E-07
JUNE	8.1 E-02	3.0 E-01	Sample Dry
JULY	6.7 E-02	4.2 E-01	<1.0 E-07
AUGUST	4.1 E-02	3.8 E-01	<1.0 E-07
SEPTEMBER	6.0 E-02	3.9 E-01	<1.0 E-07
OCTOBER	5.7 E-02	3.7 E-01	<1.0 E-07
NOVEMBER	4.3 E-02	2.8 E-01	<1.0 E-07
DECEMBER	3.9 E-02	2.6 E-01	<1.0 E-07

FOX VALLEY ROAD (AFFXFOP)

MONTH - 1988	GROSS ALPHA	GROSS BETA	H-3 (μCi/mL)
JANUARY	4.7 E-02	1.9 E-01	<1.0 E-07
FEBRUARY	3.9 E-02	2.1 E-01	2.07 ± 1.1 E-07
MARCH	9.7 E-02	4.5 E-01	2.87 ± 1.3 E-07
APRIL	5.0 E-02	4.5 E-01	2.91 ± 1.3 E-07
MAY	6.7 E-02	4.5 E-01	1.25 ± 1.2 E-07
JUNE	3.2 E-02	2.6 E-01	Sample Dry
JULY	6.2 E-02	4.8 E-01	<1.0 E-07
AUGUST	5.5 E-02	4.9 E-01	<1.0 E-07
SEPTEMBER	7.0 E-02	3.3 E-01	<1.0 E-07
OCTOBER	5.0 E-02	5.4 E-01	2.16 ± 1.4 E-07
NOVEMBER	5.3 E-02	4.2 E-01	<1.0 E-07
DECEMBER	4.5 E-02	4.8 E-01	<1.0 E-07

ROUTE 240 (AF24FOP)

MONTH - 1988	GROSS ALPHA	GROSS BETA	H-3 (μCi/mL)
JANUARY	2.1 E-02	1.3 E-01	<1.0 E-07
FEBRUARY	2.1 E-02	1.5 E-01	2.23 ± 1.1 E-07
MARCH	6.1 E-02	4.1 E-01	2.40 ± 1.2 E-07
APRIL	5.9 E-02	4.7 E-01	2.35 ± 1.3 E-07
MAY	5.8 E-02	4.6 E-01	<1.0 E-07
JUNE	4.6 E-02	2.3 E-01	Sample Dry
JULY	4.6 E-02	4.9 E-01	<1.0 E-07
AUGUST	5.6 E-02	5.7 E-01	<1.0 E-07
SEPTEMBER	8.7 E-02	5.9 E-01	<1.0 E-07
OCTOBER	3.2 E-02	5.7 E-01	<1.0 E-07
NOVEMBER	3.0 E-02	3.8 E-01	<1.0 E-07
DECEMBER	3.7 E-02	3.7 E-01	<1.0 E-07

THOMAS CORNERS ROAD (AFTCFOP)

MONTH - 1988	GROSS ALPHA	GROSS BETA	H-3 (μCi/mL)
JANUARY	3.5 E-02	1.4 E-01	<1.0 E-07
FEBRUARY	3.9 E-02	2.2 E-01	1.42 ± 1.1 E-07
MARCH	7.2 E-02	4.0 E-01	1.00 ± 0.1 E-06
APRIL	3.6 E-02	4.7 E-01	2.11 ± 1.3 E-07
MAY	1.0 E-01	3.9 E-01	<1.0 E-07
JUNE	1.3 E-01	3.7 E-01	Sample Dry
JULY	1.1 E-01	5.9 E-01	<1.0 E-07
AUGUST	6.3 E-02	4.7 E-01	<1.0 E-07
SEPTEMBER	5.1 E-02	4.5 E-01	<1.0 E-07
OCTOBER	4.5 E-02	5.5 E-01	1.50 ± 1.2 E-07
NOVEMBER	4.4 E-02	5.2 E-01	<1.0 E-07
DECEMBER	5.8 E-02	5.4 E-01	<1.0 E-07

Note: Gross alpha uncertainty is ± 45 %; gross beta uncertainty is ± 20 %.

TABLE C-2.3.2

pH OF PRECIPITATION COLLECTED IN FALLOUT POTS

MONTH - 1988	DUTCH HILL (AFDHFOP)	FOX VALLEY ROAD (AFFXFOP)	ROUTE 240 (AF24FOP)	THOMAS CORNERS ROAD (AFTCFOP)
JANUARY	3.72	4.65	3.58	3.89
FEBRUARY	4.08	4.48	4.21	4.18
MARCH	4.04	5.25	4.24	5.02
APRIL	4.04	5.72	6.10	4.82
MAY	4.18	6.51	7.11	7.04
JUNE	DRY	DRY	DRY	DRY
JULY	4.60	3.98	4.30	4.08
AUGUST	4.41	4.20	4.04	4.11
SEPTEMBER	5.96	4.25	4.26	4.36
OCTOBER	4.30	4.70	4.49	4.30
NOVEMBER	4.01	4.22	3.89	4.12
DECEMBER	4.03	4.34	4.02	4.21