

Commonwealth Edison Company
Quad Cities Generating Station
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LWP-96-057

ComEd

August 10, 1996

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

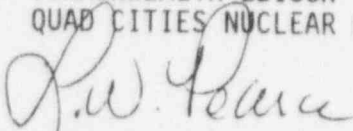
SUBJECT: Quad Cities Station Operating Report
NRC Dockets (50-254 and 50-265)

Enclosed is the Radioactive Effluent Report for January through June 1996, for Quad Cities Nuclear Power Station.

A copy of this report will be furnished to the NRC Resident Inspector.

Sincerely,

COMMONWEALTH EDISON
QUAD CITIES NUCLEAR POWER STATION



L. W. Pearce
Station Manager

LWP/JGW/nsh

Enclosure

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EFFLUENT AND WASTE DISPOSAL SEMIANNUAL REPORT

Supplemental Information

Facility Quad Cities Nuclear Power Station

Licensee Commonwealth Edison Company

1. Regulatory Limits

a. For Noble Gases:

Dose rate

1. Less than 500 mrem/year to the whole body.
2. Less than 3000 mrem/year to the skin.

Dose Gamma Radiation

1. Less than or equal to 5 mrad/quarter.
2. Less than or equal to 10 mrad/year.

Beta Radiation

1. Less than or equal to 10 mrad/quarter.
2. Less than or equal to 20 mrad/year.

b.,c. For Iodine-131, for Iodine-133, and for all radionuclides in particulate form with half-lives greater than 8 days.

Dose Rate

1. Less than 1500 mrem/year

Dose

1. Less than or equal to 7.5 mrem/quarter
2. Less than or equal to 15 mrem/year.

d. For Liquid

Less than or equal to 3 mrem to the whole body during any calendar quarter.

Less than or equal to 10 mrem to any organ during any calendar quarter.

Less than or equal to 6 mrem to the whole body during any calendar year.

Less than or equal to 20 mrem to any organ during any calendar year.

2. Maximum Permissible Concentration

- a., b., c., For fission and activation gases, iodines, and particulates with half-lives greater than 8 days, allowable release limits are calculated by solving equations 10.1 and 10.2 from the Offsite Dose Calculation Manual. The alarm setpoint is conservatively set at approximately 10% of the 10CFR20 limit.
- d. For liquid effluents allowable release limits are calculated by solving equations 10.3 and 10.4 from the Offsite Dose Calculation manual. The MPC values used for the monitors were as follows:

radwaste discharge $2.18\text{E}-06$ uCi/ml
service water $1.0\text{E}-06$ uCi/ml

3. Average Energy

The average gamma energy used to calculate the alarm setpoints for the noble gas monitors was 0.613 Mev for the First quarter, and 0.478 Mev for the Second quarter.

4. Measurements and Approximations of Total Radioactivity

- a. Fission and Activation Gases:
- b. Iodines:
- c. Particulates:

The main chimney and reactor building ventilation exhaust systems are continually monitored for iodines and particulates. These samples are pulled every 7 days and analyzed by gamma isotopic. The particulate papers are composited every 31 days and sent to a vendor for Sr 89-90 and gross alpha analysis. Noble gas grab samples are pulled and analyzed by gamma isotopic weekly. Tritium samples are pulled and analyzed every month.

The continuous strip chart recorders for the monitors on the release points are reviewed monthly for spikes and the activity released is calculated. An additional calculated activity for noble gases is added to the Main chimney release each month. This calculation is done because most of the grab samples show less than the lower limit of detection due to the low amount of activity and the large dilution flow at the sample point. The calculation takes into account the normal offgas train and the gland steam contribution to the release.

The average flow at the release points are used to calculate the curies released.

d. Liquid Effluents

The river discharge tanks are analyzed before discharge by gamma isotopic. A composite representative portion of this sample saved. This is composited with other discharges that occurred every 31 days and is analyzed for tritium and gross alpha. The batch composites are composited quarterly and sent to a vendor for Sr 89-90 and Fe 55. The discharge bay is sampled every 31 days and analyzed by gamma isotopic, for tritium and gross alpha. It is sampled quarterly and sent to a vendor for Sr 89-90 and Fe 55 analysis.

The tank volumes and activities are used to calculate the curies released for the River Discharge Tank. The total water released during the quarter and the activity is used to calculate the diluted activity released at the discharge bay, from batch discharges.

e. Estimated Total Error Percent

The estimated total error percents were calculated by taking the square root of the sum of the squares of errors for sampling and measurement parameters. The estimated total error percent for the solid waste radwaste curies is 12.3%.

f. Less than the lower limit of detection (<LLD).

Samples are analyzed such that the Technical Specification LLD requirements are met. When a nuclide is not detected during the quarter then <LLD is reported.

5. Batch Releases

a. Liquid

1. number of releases 22
2. total time 21,655 minutes
3. maximum time 1100 minutes
4. average time 984 minutes
5. minimum time 780 minutes
6. average stream flow, discharge 51.7 gpm,
dilution 1.65E+05 gpm.

b. Gaseous

NONE

6. Abnormal Releases

a. Gaseous

NONE

b. Liquid

On September 14, 1993, a leak was identified on the U-1 "B" RHR Heat Exchanger. Unit One was at full power at this time. The total activity released to the environment from this leak was $1.13\text{E}-04$ Ci from 1/1/96 thru 6/30/96, and was added to the monthly liquid release summary for each month. In this report, the activity is reported under the "Continuous Liquid Release" column.

This leak was repaired in February 1996.

c. On May 10, 1996, Quad Cities Station was hit by a tornado. The event caused no known gaseous or liquid abnormal releases and is mentioned here for record only.

ATTACHMENT A (Page 1 of 5)

EFFLUENT & WASTE DISPOSABLE SEMI-ANNUAL REPORT

GASEOUS EFFLUENTS - SUMMATION OF ALL RELEASES

Period: January through June

1996

A. FISSION & ACTIVATION GASES	UNIT	FIRST QUARTER	SECOND QUARTER	Est.Total Error %
1. Total Release	Ci	1.27E+01	2.30E00	12.4
2. Average release rate for the period	μCi/sec	1.62E00	2.93E-01	
3. *Percent of ODCM limit Chimney & Stack	%	5.72E-03	9.60E-04	
		2.32E-04	4.43E-05	

B. IODINE				
1. Total Iodine-131	Ci	6.90E-04	3.10E-05	40.0
2. Average release rate for the period	μCi/sec	8.78E-05	3.94E-06	

C. PARTICULATES				
1. Particulates with half-lives >8 days	Ci	1.82E-02	1.01E-03	39.1
2. Average release rate for the period	μCi/sec	2.31E-03	1.28E-04	
3. Gross alpha radioactivity	Ci	5.17E-06	<LLD	

D. TRITIUM				
1. Total Release	Ci	2.23E+01	6.63E00	8.0
2. Average release rate for the period	μCi/sec	2.84E00	8.43E-01	

E. Iodine 131 & 133, Tritium & Particulate				
1. Percent of ODCM limit Chimney & Stack	%	1.86E-01	7.68E-02	

* NOBLE GAS GAMMA/NOBLE GAS BETA DOSE LIMITS

ATTACHMENT A (Page 2 of 5) **EFFLUENT & WASTE DISPOSABLE SEMI-ANNUAL REPORT**

MAIN CHIMNEY GASEOUS EFFLUENTS

CONTINUOUS MODE

BATCH MODE

NUCLIDES RELEASED 1. Fission gases	UNIT	FIRST QUARTER	SECOND QUARTER	FIRST QUARTER	SECOND QUARTER
Kr-85	Ci	<LLD	<LLD	N/A	N/A
Kr-85m	Ci	1.34E00	1.50E-02		
Kr-87	Ci	3.73E-01	8.39E-02		
Kr-88	Ci	1.83E00	4.76E-02		
Xe-133	Ci	1.40E00	3.05E-02		
Xe-135	Ci	6.74E-01	9.00E-02		
Xe-135m	Ci	1.25E00	3.91E-01		
Xe-138	Ci	5.24E00	1.61E00		
Ar-41	Ci	6.35E-01	3.30E-02		
Total for Period	Ci	1.27E+01	2.30E00		
NUCLIDES RELEASED 2. Iodines	UNIT	FIRST QUARTER	SECOND QUARTER	FIRST QUARTER	SECOND QUARTER
I-131	Ci	5.71E-04	3.10E-05	N/A	N/A
I-133	Ci	3.38E-03	3.67E-04		
I-135	Ci	2.14E-03	<LLD		
Total for period	Ci	6.09E-03	3.98E-04		
NUCLIDES RELEASED 3. Particulates	UNIT	FIRST QUARTER	SECOND QUARTER	FIRST QUARTER	SECOND QUARTER
Sr-89	Ci	1.31E-04	1.18E-04	N/A	N/A
Sr-90	Ci	<LLD	<LLD		
Cs-134	Ci	<LLD	<LLD		
Cs-137	Ci	<LLD	<LLD		
Ba-140	Ci	<LLD	<LLD		
La-140	Ci	2.88E-05	<LLD		
Cr-51	Ci	8.22E-03	<LLD		
Mn-54	Ci	3.85E-04	1.09E-05		
Co-58	Ci	1.24E-04	<LLD		
Co-60	Ci	2.49E-03	4.72E-05		
Mo-99	Ci	2.91E-04	<LLD		
Ag-110m	Ci	2.46E-05	<LLD		
I-131	Ci	8.78E-05	<LLD		
I-133	Ci	1.25E-03	<LLD		
I-135	Ci	2.55E-03	<LLD		
Total for Period	Ci	1.56E-02	1.16E-04		

ATTACHMENT A (Page 3 of 5)
EFFLUENT & WASTE DISPOSABLE SEMI-ANNUAL REPORT

REACTOR VENTILLATION GASEOUS EFFLUENTS
CONTINUOUS MODE

BATCH MODE

NUCLIDES RELEASED 1. Fission gases	UNIT	FIRST QUARTER	SECOND QUARTER	FIRST QUARTER	SECOND QUARTER
Kr-85	Ci	<LLD	<LLD	N/A	N/A
Kr-85m	Ci	<LLD	<LLD		
Kr-87	Ci	<LLD	<LLD		
Kr-88	Ci	<LLD	<LLD		
Xe-133	Ci	<LLD	<LLD		
Xe-135	Ci	<LLD	<LLD		
Xe-135m	Ci	<LLD	<LLD		
Xe-138	Ci	<LLD	<LLD		
Total for Period	Ci	<LLD	<LLD		
NUCLIDES RELEASED 2. Iodines	UNIT	FIRST QUARTER	SECOND QUARTER	FIRST QUARTER	SECOND QUARTER
I-131	Ci	3.07E-05	<LLD	N/A	N/A
I-133	Ci	<LLD	<LLD		
I-135	Ci	<LLD	<LLD		
Total for period	Ci	3.07E-05	<LLD		
NUCLIDES RELEASED 3. Particulates	UNIT	FIRST QUARTER	SECOND QUARTER	FIRST QUARTER	SECOND QUARTER
Sr-89*	Ci	<LLD	<LLD	N/A	N/A
Sr-90*	Ci	<LLD	<LLD		
Cs-134	Ci	<LLD	7.52E-06		
Cs-137	Ci	4.29E-05	<LLD		
Ba-140	Ci	<LLD	<LLD		
La-140	Ci	<LLD	<LLD		
Cr-51	Ci	2.43E-04	<LLD		
Mn-54	Ci	3.24E-04	3.45E-05		
Co-58	Ci	2.73E-05	<LLD		
Co-60	Ci	1.96E-03	6.85E-04		
Mo-99	Ci	2.39E-05	<LLD		
Ag-110m	Ci	<LLD	<LLD		
I-131	Ci	<LLD	<LLD		
I-133	Ci	<LLD	<LLD		
Sb-124	Ci	2.38E-05	<LLD		
Fe-59	Ci	<LLD	1.07E-04		
Total for Period	Ci	2.64E-03	8.34E-04		

* Projected data based on previous six months available data.

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EFFLUENT & WASTE DISPOSABLE SEMI-ANNUAL REPORT

LIQUID EFFLUENTS - SUMMATION OF ALL RELEASES

A. FISSION & ACTIVATION GASES	UNIT	FIRST QUARTER	SECOND QUARTER	Est. Total Error %
1. Total Release (not including tritium, gases & alpha)	Ci	9.91E-03	1.06E-02	5.5
2. Average diluted concentration during batch discharges for the period	µCi/mL	1.85E-09	1.30E-09	
3. Percent of applicable limit*	%	1.31E-02	8.14E-03	
		5.98E-03	3.65E-03	
4. Maximum diluted concentration during batch discharges	µCi/mL	3.79E-09	3.29E-09	
B. TRITIUM				
1. Total Release	Ci	5.28E00	7.18E00	4.0
2. Average diluted concentration during batch discharges for the period	µCi/mL	9.83E-07	8.80E-07	
3. Percent of applicable limit	%	3.28E-02	2.93E-02	
C. DISSOLVED & ENTRAINED GASES				
1. Total Release	Ci	<LLD	5.19E-04	5.5
2. Average diluted concentration during batch discharges for the period	µCi/mL	<LLD	6.36E-11	
3. Percent of applicable limit	%	N/A	3.18E-05	
D. GROSS ALPHA ACTIVITY				
1. Total Release	Ci	<LLD	<LLD	14.5
2. Average diluted concentration during batch discharges for the period	µCi/mL	<LLD	<LLD	
E. VOLUME OF WASTE RELEASED (prior to dilution)	Liters	1.96E+06	2.27E+06	
F. VOLUME OF DILUTION WATER USED DURING BATCH DISCHARGES	Liters	5.37E+09	8.16E+09	
G. TOTAL VOLUME OF DILUTION WATER USED DURING PERIOD (quarter)	Liters	2.34E+11	2.27E+11	

* Whole Body/Organ (ODCM)

ATTACHMENT A (Page 5 of 5)

EFFLUENT & WASTE DISPOSABLE SEMI-ANNUAL REPORT

LIQUID EFFLUENTS

NUCLIDES RELEASED	UNIT	CONTINUOUS MODE		BATCH MODE	
		FIRST QUARTER	SECOND QUARTER	FIRST QUARTER	SECOND QUARTER
Sr-89	Ci	<LLD	<LLD	3.55E-06	6.45E-07
Sr-90	Ci	5.04E-07	<LLD	6.78E-06	7.60E-05
Cs-134	Ci	<LLD	<LLD	<LLD	<LLD
Cs-137	Ci	2.77E-05	<LLD	3.16E-03	1.83E-03
I-131	Ci	<LLD	<LLD	<LLD	<LLD
Co-60	Ci	7.84E-05	<LLD	3.93E-03	6.38E-03
Co-58	Ci	<LLD	<LLD	1.52E-04	2.74E-05
Fe-59	Ci	<LLD	<LLD	<LLD	<LLD
Zn-65	Ci	<LLD	<LLD	<LLD	<LLD
Mn-54	Ci	<LLD	<LLD	3.60E-04	3.21E-04
Cr-51	Ci	<LLD	<LLD	3.89E-04	<LLD
Zr-95	Ci	<LLD	<LLD	<LLD	<LLD
Nb-95	Ci	<LLD	<LLD	<LLD	<LLD
Mo-99	Ci	<LLD	<LLD	<LLD	<LLD
Ag-110m	Ci	<LLD	<LLD	5.87E-05	1.65E-04
Ba-140	Ci	<LLD	<LLD	<LLD	<LLD
La-140	Ci	<LLD	<LLD	<LLD	<LLD
Fe-55	Ci	6.06E-06	<LLD	1.74E-03	1.66E-03
Sb-124	Ci	<LLD	<LLD	<LLD	5.76E-05
Ta-182	Ci	<LLD	<LLD	<LLD	4.42E-05
As-76	Ci	<LLD	<LLD	<LLD	4.08E-05
Total for Period (above)	Ci	1.13E-04	<LLD	9.80E-03	1.06E-02
Xe-133	Ci	<LLD	<LLD	<LLD	3.50E-04
Xe-135	Ci	<LLD	<LLD	<LLD	1.69E-04

Prepared by:  Date: 8-14-96
Approved by: Paul A Behrens Date: 8-16-96

January-March 1996
196-33 ft. DIFFERENTIAL TEMPERATURE

SPEED		WIND DIRECTION CLASSES																STABILITY CLASSES							
CLASS	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES	TOTAL
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
C SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			.00				
A N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				.00			
L SS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					.00		
M MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00	
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00
																									.00
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
1 SU	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.09	.09			.09				
- N	.19	.23	.23	.14	.46	.19	.05	.14	.00	.09	.09	.05	.09	.23	.00	.00	2.18				2.18				
3 SS	.14	.19	.05	.14	.32	.37	.19	.19	.23	.46	.23	.37	.14	.46	.14	.09	3.71					3.71			
MS	.23	.05	.14	.05	.23	.28	.56	.69	.32	.28	.23	.32	.23	.32	.09	.19	4.21						4.21		
ES	.05	.00	.05	.05	.28	.69	.37	.46	.14	.05	.05	.19	.19	.05	.00	.05	2.64							2.64	12.83
EU	.00	.00	.00	.00	.05	.00	.00	.19	.32	.23	.28	.42	.69	.37	.28	.28	3.10	3.10							
MU	.00	.00	.00	.05	.00	.05	.00	.09	.09	.05	.09	.09	.23	.00	.05	.09	.88	.88							
4 SU	.14	.05	.00	.00	.14	.23	.23	.28	.32	.23	.09	.14	.09	.19	.23	.14	2.50			2.50					
- N	1.20	.93	1.11	1.30	.88	.65	1.02	.88	.65	.28	.93	.97	1.39	2.18	1.76	.65	16.77				16.77				
7 SS	.93	.32	.56	.37	1.02	.69	.69	1.39	.65	.51	1.20	1.34	1.62	.97	2.18	1.07	15.52					15.52			
MS	.09	.05	.14	.14	.19	.69	.37	.46	.09	.05	.09	.00	.23	.09	.28	.09	3.06						3.06		
ES	.00	.00	.05	.00	.00	.60	.14	.14	.09	.00	.00	.00	.00	.05	.00	.00	1.07							1.07	42.89
EU	.14	.00	.00	.00	.09	.59	.14	.42	.37	.09	.23	.32	1.48	.37	1.34	1.02	6.72	6.72							

January-March 1996
196-33 ft. DIFFERENTIAL TEMPERATURE

Wind Direction by Stability

Wind Direction by Wind Speed

[illegible]

January-March 1996
296-33 ft. DIFFERENTIAL TEMPERATURE

SPEED CLASS	WIND DIRECTION CLASSES																STABILITY CLASSES								
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES	TOTAL
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
C SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
A N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
L SS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
M MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
1 SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
N	.00	.05	.00	.05	.05	.19	.00	.00	.00	.10	.00	.00	.00	.00	.05	.00	.48	.00	.00	.00	.48	.00	.00	.00	.00
3 SS	.05	.05	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.14	.00	.00	.00	.00
MS	.10	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.19	.00	.00	.00	.19	.00	.00	.00	.00
ES	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.05	.00	.00	.00	.00
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MU	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.05	.00	.00	.00	.00
4 SU	.00	.00	.00	.05	.00	.00	.00	.00	.05	.05	.00	.24	.05	.00	.00	.05	.48	.00	.00	.00	.48	.00	.00	.00	.00
N	.34	.48	.34	.05	.24	.05	.10	.19	.10	.14	.05	.14	.34	.19	.05	.05	2.82	.00	.00	.00	2.82	.00	.00	.00	.00
7 SS	.10	.14	.05	.10	.10	.10	.05	.05	.05	.05	.10	.05	.05	.19	.10	.05	1.29	.00	.00	.00	1.29	.00	.00	.00	.00
MS	.00	.00	.00	.00	.05	.05	.00	.00	.00	.05	.00	.00	.10	.05	.00	.10	.38	.00	.00	.00	.38	.00	.00	.00	.00
ES	.00	.05	.05	.00	.05	.00	.05	.05	.00	.00	.10	.00	.00	.00	.00	.05	.38	.0							

CECo QUAD CITIES STATION
296 ft. WIND SPEED and WIND DIRECTION

January-March 1996
296-33 ft. DIFFERENTIAL TEMPERATURE

SPEED CLASS	WIND DIRECTION CLASSES																STABILITY CLASSES								TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	EU	MU	SU	N	SS	MS	ES		
EU	.05	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.14	.05	.05	.05	.38	.38							
1 MU	.10	.00	.00	.00	.00	.05	.05	.00	.00	.05	.00	.00	.05	.05	.10	.10	.53	.53							
9 SU	.24	.14	.00	.00	.00	.05	.00	.00	.05	.00	.00	.00	.19	.24	.05	.05	1.01		1.01						
N	.81	.81	.86	.00	.10	.34	.72	.57	.38	.48	.19	.05	.96	1.87	1.63	.67	10.44			10.44					
2 SS	.24	.10	.00	.05	.05	.67	.24	.77	.38	.53	.10	.19	.96	.14	.00	.10	4.50				4.50				
4 MS	.05	.00	.00	.00	.00	.10	.10	.00	.14	.14	.00	.05	.00	.00	.00	.00	.57					.57			
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00	.00	.00	.00	.00	.10						.10		
																								17.52	
EU	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05							
6 MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00	.10	.10							
T SU	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.19		.19						
N	.29	.00	.14	.00	.00	.10	.10	.00	.05	.25	.19	.10	1.34	2.35	.19	.00	5.12			5.12					
2 SS	.00	.00	.00	.00	.00	.00	.00	.81	.38	.14	.10	.00	.00	.00	.00	.00	1.44				1.44				
4 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.05					.05			
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00		
																								6.94	

TOT 7.42 4.83 4.79 3.64 3.35 5.22 4.45 7.80 5.31 5.07 5.41 4.16 9.48 11.87 10.15 7.04 100.00 2.44 3.73 5.98 51.65 26.28 7.90 2.01 100.00

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
.10	.00	.00	.00	.00	.14	.00	.38	.24	.00	.10	.10	.43	.10	.53	.34	2.44	Extremely Unstable
.10	.00	.00	.00	.10	.38	.14	.34	.14	.10	.19	.19	.53	.34	.48	.72	3.73	Moderately Unstable
.57	.14	.00	.19	.19	.19	.10	.19	.38	.19	.24	.62	.86	.86	.43	.81	5.98	Slightly Unstable
3.93	3.16	4.12	2.39	1.58	1.96	2.39	2.39	1.39	1.68	2.35	1.91	4.64	8.14	6.65	2.97	51.65	Neutral
2.25	1.01	.53	.81	1.01	2.06	1.10	3.06	1.72	1.53	1.82	1.20	2.73	1.91	1.68	1.87	26.28	Slightly Stable
.48	.48	.10	.19	.34	.48	.62	1.15	1.24	.91	.57	.14	.19	.53	.19	.29	7.90	Moderately Stable
.00	.05	.05	.05	.14	.00	.10	.29	.19	.67	.14	.00	.10	.00	.19	.05	2.01	Extremely Stable

Wind Direction by Wind Speed

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-WIND SPEED CLASSES-
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	CALM
.14	.10	.00	.14	.05	.24	.00	.00	.00	.10	.00	.05	.00	.00	.05	.00	.86	0.9 - 3.5 mph
.43	.67	.43	.19	.43	.19	.19	.29	.24	.29	.24	.43	.53	.43	.14	.29	5.41	3.6 - 7.5 mph
1.48	1.77	1.39	1.48	2.01	1.58	.81	1.68	.86	1.24	1.20	1.24	1.91	2.82	2.39	2.01	25.90	7.6 - 12.5 mph
3.49	1.24	1.96	1.77	.72	1.91	2.25	3.64	2.82	1.68	3.40	2.06	3.40	3.69	5.55	3.78	43.37	12.6 - 18.5 mph
1.48	1.05	.86	.05	.14	1.20	1.10	1.39	.96	1.29	.29	.29	2.30	2.35	1.82	.96	17.52	18.6 - 24.5 mph
.38	.00	.14	.00	.00	.10	.10	.81	.43	.48	.29	.10	1.34	2.58	.19	.00	6.94	> 24.5 mph

April-June 1996
196-33 ft. DIFFERENTIAL TEMPERATURE

SPEED CLASS	WIND DIRECTION CLASSES						STABILITY CLASSES										TOTAL	STABILITY CLASSES						TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW		EU	MU	SU	N	SS	MS	
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				
SS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			
MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						
SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.09	.00	.09	.05	.28			.28					
N	.14	.18	.23	.14	.05	.00	.00	.09	.09	.41	.09	.09	.46	.51	.14	.09	2.71							
SS	.51	.37	.46	.41	.23	.32	.46	.73	.64	.32	.64	.60	.78	.32	.32	.32	7.44							
MS	.39	.35	.49	.39	.67	.76	.99	.39	.39	.39	.25	.39	.25	.39	.21	6.98								
ES	.21	.17	.21	.12	.78	.54	.59	.40	.59	.31	.07	.26	.17	.12	.12	.07	4.73							
EU	.28	.05	.18	.14	.09	.05	.05	.23	.00	.73	.55	.32	.78	.37	.78	.41	5.01							
MU	.09	.09	.09	.14	.05	.09	.05	.00	.09	.23	.09	.09	.05	.14	.09	.23	1.61							
SU	.00	.05	.05	.14	.23	.14	.14	.14	.05	.32	.28	.28	.23	.28	.32	.14	2.76							
N	1.01	1.06	1.65	1.75	2.48	1.10	.87	.69	.51	1.24	1.01	.92	.87	.83	.73	.83	17.55							
SS	1.01	.78	1.29	1.47	1.01	.78	.83	.78	.60	1.15	1.61	1.61	1.10	.83	1.01	.83	16.67							
MS	.00	.09	.09	.09	.05	.46	.23	.18	.28	.41	.05	.00	.14	.09	.14	.00	2.30							
ES	.00	.00	.05	.00	.00	.23	.05	.09	.09	.00	.00	.00	.14	.09	.05	.00	.78							
EU	.28	.05	.28	.37	.05	.14	.09	.46	.41	.87	.60	.32	.23	.69	.78	.73	6.34							
MU	.18	.09	.00	.14	.00	.00	.09	.00	.00	.14	.14	.05	.09	.09	.09	.05	1.15							
SU	.18	.00	.14	.14	.23	.05	.09	.05	.05	.09	.05	.14	.05	.05	.18	.23	1.70							
N	1.38	.69	.78	3.03	1.52																			

April-June 1996
196-33 ft. DIFFERENTIAL TEMPERATURE

Wind Direction by Stability

Wind Direction by Wind Speed

[illegible]

April-June 1996
296-33 ft. DIFFERENTIAL TEMPERATURE

SPEED CLASS	WIND DIRECTION CLASSES																STABILITY CLASSES								
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES	TOTAL
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
N	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00			
SS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00		.00			
MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00			.00		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00				.00	
																									.00
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
MU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00					
SU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00		.05			
N	.00	.05	.09	.09	.00	.00	.00	.00	.00	.00	.14	.05	.09	.09	.00	.09	.70					.70			
SS	.09	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.23					.23			
MS	.00	.05	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09					.09			
ES	.00	.00	.00	.05	.00	.00	.05	.00	.00	.05	.00	.00	.00	.00	.00	.00	.14						.14		1.22
EU	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05	.05							
MU	.09	.05	.19	.05	.00	.09	.05	.00	.05	.00	.05	.00	.09	.05	.19	.19	1.12		1.12						
SU	.05	.05	.09	.05	.14	.05	.05	.00	.00	.05	.05	.00	.05	.19	.23	.19	1.22		1.22						
N	.65	.33	.28	.33	.89	.56	.33	.00	.09	.56	.28	.23	.51	.51	.51	.61	6.69					6.69			
SS	.14	.14	.37	.33	.51	.14	.09	.23	.19	.19	.19	.05	.19	.14	.14	.19	3.23					3.23			
MS	.00	.00	.23	.05	.09	.00	.05	.05	.00	.09	.19	.14	.05	.05	.09	.05	1.12					1.12			
ES	.00	.00	.00	.05	.00	.00	.00	.00	.05	.09	.05	.00	.05	.00	.05	.00	.33						.33		13.74
EU	.05	.00	.09	.09	.09	.00	.00	.09	.00	.19	.14	.19	.28	.09	.05	.33	1.68	1.68							
MU																									

CECO QUAD CITIES STATION
296 ft. WIND SPEED and WIND DIRECTION

April-June 1996
296-33 ft. DIFFERENTIAL TEMPERATURE

SPEED CLASS	WIND DIRECTION CLASSES																STABILITY CLASSES								TOTAL
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	EU	MU	SU	N	SS	MS	ES	
EU	.00	.00	.00	.00	.00	.00	.05	.19	.33	.19	.05	.00	.00	.33	.23	.00	1.36	1.36							
1 MU	.05	.00	.00	.00	.00	.00	.00	.09	.05	.14	.00	.00	.00	.05	.09	.00	.47		.47						
9 SU	.00	.05	.00	.00	.00	.00	.00	.05	.09	.14	.14	.09	.00	.05	.09	.00	.70			.70					
N	.61	.33	.37	1.96	.56	.09	.42	.19	.05	.28	.56	.33	.51	.79	.42	.65	8.13				8.13				
2 SS	.00	.00	.23	.09	.05	.00	.09	.47	.47	.98	.70	.09	.19	.09	.00	.00	3.46					3.46			
4 MS	.00	.00	.00	.00	.00	.05	.14	.00	.00	.14	.00	.00	.00	.00	.00	.00	.33						.33		
ES	.00	.00	.00	.00	.00	.00	.05	.00	.00	.09	.00	.00	.00	.00	.00	.00	.14							.14	
																									14.59
EU	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.05	.00	.00	.00	.00	.14	.14							
6 MU	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.05	.00	.00	.00	.09		.09						
T SU	.00	.00	.00	.00	.00	.00	.00	.00	.05	.05	.00	.05	.00	.00	.00	.00	.14			.14					
N	.00	.00	.19	.42	.09	.14	.00	.05	.05	.19	.23	.14	.79	.19	.00	.09	2.57				2.57				
2 SS	.00	.00	.09	.05	.00	.05	.00	.00	.28	.42	.05	.00	.00	.00	.00	.00	.98					.98			
4 MS	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00						.00		
ES	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00							.00	
																									3.93
TOT	5.33	4.58	6.55	8.23	8.70	3.46	5.00	5.14	4.91	10.10	6.31	5.24	6.78	7.43	5.28	6.97	100.00	4.86	6.64	5.70	45.91	25.76	8.46	2.66	100.00

Wind Direction by Stability

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-STABILITY CLASSES-
.05	.05	.14	.19	.09	.05	.05	.61	.42	.75	.28	.23	.42	.51	.56	.47	4.86	Extremely Unstable
.28	.14	.42	.51	.05	.28	.19	.23	.14	.89	.56	.28	.42	.37	.84	1.03	6.64	Moderately Unstable
.51	.14	.23	.28	.28	.09	.14	.19	.14	.61	.51	.37	.33	.56	.56	.75	5.70	Slightly Unstable
3.09	2.99	3.37	4.86	5.52	1.78	1.78	1.26	1.26	2.38	2.01	2.29	3.69	3.65	2.66	3.32	45.91	Neutral
.94	1.17	1.96	1.82	2.20	.94	1.36	2.01	2.20	3.27	2.06	1.45	1.31	1.73	.37	.98	25.76	Slightly Stable
.47	.09	.42	.42	.56	.28	1.31	.75	.61	1.36	.56	.47	.33	.47	.14	.23	8.46	Moderately Stable
.00	.00	.00	.14	.00	.05	.19	.09	.14	.84	.33	.14	.28	.14	.14	.19	2.66	Extremely Stable

Wind Direction by Wind Speed

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	TOTAL	-WIND SPEED CLASSES-
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	CALM
.09	.09	.14	.14	.05	.00	.05	.00	.05	.14	.05	.14	.09	.00	.19	.19	1.22	0.9 - 3.5 mph
.94	.56	1.17	.84	1.64	.84	.56	.28	.37	.98	.79	.42	.94	.94	1.22	1.26	13.74	3.6 - 7.5 mph
1.40	1.96	2.20	2.43	3.79	1.45	1.79	1.59	1.87	2.90	1.50	1.92	2.10	1.92	1.40	2.95	33.15	7.6 - 12.5 mph
2.24	1.59	2.15	2.29	2.52	.84	1.87	2.24	1.36	3.41	2.06	2.20	2.01	2.95	1.82	1.82	33.38	12.6 - 18.5 mph
.65	.37	.61	2.06	.61	.14	.75	.98	.98	1.96	1.45	.51	.70	1.31	.84	.65	14.59	18.6 - 24.5 mph
.00	.00	.28	.47	.09	.19	.00	.05	.33	.79	.37	.14	.89	.23	.00	.09	3.93	> 24.5 mph

NRC Reg. Guide 1.21 Report

Report Date : 08/01/96

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Solid Waste Shipped Offsite for Disposal

** During Period From 01/01/96 to 07/01/96 **

Waste Stream : Resins, Filters, & Evap Bottoms

RADMAN Waste Type(s):

PR-D-NA COND 215
 PR-D-NA RWCU 120
 BR-D-NA NSRT 215
 PR-D-NA RWCU 120 *
 BR-D-NA-DEC 120
 PR-D-NA COND 179
 CF-D-NA 215 FEXM *
 BR-D-NA NSRT 170
 CF-D-NA 120 MTIF *
 PR-D-NA COND 170
 PR-D-NA COND 120

Waste Class	Volume Ft^3	M^3	Curies Shipped
A	2022.8	57.2	3.82E+02
B	1576.2	44.6	7.71E+02
C	326.1	9.2	2.69E+01
All	3925.1	111.1	1.18E+03

*--Combined Waste Type Shipment, Major Volume Waste Type Shown

Solid Waste Shipped Offsite for Disposal

** During Period From 01/01/96 to 07/01/96 **

Waste Stream : Dry Active Waste

RADMAN Waste Type(s):

DAW-U-NA 8x8x20
DAW-C-NA 55 DRUM
DAW-U-NA 8x8x40
DAW-U-NA ALARON
CF-D-NA FG Box
DAW-U-NA B25 Box
DAW-U-NA OVRPAK *
DAW-U-NA 55 Drum
DAW-U-NA OIL PKS
DAW-U-NA B25

Waste Class	Volume		Curies Shipped
	Ft^3	M^3	
A	48242.7	1365.3	1.80E+01
B	.0	.0	0.00E+00
C	.0	.0	0.00E+00
All	48242.7	1365.3	1.80E+01

*-Combined Waste Type Shipment, Major Volume Waste Type Shown

Solid Waste Shipped Offsite for Disposal
** During Period From 01/01/96 to 07/01/96 **

Waste Stream : Irradiated Components

RADMAN Waste Type(s):

None Selected.

Waste Class	Volume Ft^3	M^3	Curies Shipped
A	.0	.0	0.00E+00
B	.0	.0	0.00E+00
C	.0	.0	0.00E+00
All	.0	.0	0.00E+00

*-Combined Waste Type Shipment, Major Volume Waste Type Shown

Solid Waste Shipped Offsite for Disposal

** During Period From 01/01/96 to 07/01/96 **

Waste Stream : Other Waste

RADMAN Waste Type(s):

None Selected.

Waste Class	Volume		Curies Shipped
	Ft^3	M^3	
A	.0	.0	0.00E+00
B	.0	.0	0.00E+00
C	.0	.0	0.00E+00
All	.0	.0	0.00E+00

*-Combined Waste Type Shipment, Major Volume Waste Type Shown

Solid Waste Shipped Offsite for Disposal

** During Period From 01/01/96 to 07/01/96 **

Waste Stream : Sum of All 4 Categories

RADMAN Waste Type(s):

DAW-U-NA 8x8x20
 DAW-C-NA 55 DRUM
 PR-D-NA COND 215
 DAW-U-NA 8x8x40
 DAW-U-NA ALARON
 PR-D-NA RWCU 120
 CF-D-NA FG Box
 BR-D-NA NSRT 215
 DAW-U-NA B25 Box
 PR-D-NA RWCU 120 *
 BR-D-NA-DEC 120
 PR-D-NA COND 179
 CF-D-NA 215 FEXM *
 DAW-U-NA OVRPAK *
 DAW-U-NA 55 Drum
 BR-D-NA NSRT 170
 CF-D-NA 120 MTIF *
 PR-D-NA COND 170
 PR-D-NA COND 120
 DAW-U-NA OIL PKS
 DAW-U-NA B25

Waste Class	Volume Ft^3	M^3	Curies Shipped
A	50265.5	1422.5	4.00E+02
B	1576.2	44.6	7.71E+02
C	326.1	9.2	2.69E+01
All	52167.8	1476.3	1.20E+03

*-Combined Waste Type Shipment, Major Volume Waste Type Shown

** Estimates of Major Nuclides by Waste Class and Stream **
Waste Stream: Resins, Filters, & Evap Bottoms with 0 % Cutoff.

Waste Class	Nuclide Name	Percent Abundance	Curies
-----	-----	-----	-----
A	Co-60	60.766%	2.32E+02
	Fe-55	17.715%	6.76E+01
	Mn-54	10.909%	4.17E+01
	Cs-137	6.120%	2.34E+01
	Cr-51	1.336%	5.10E+00
	Zn-65	1.133%	4.33E+00
	Co-58	.741%	2.83E+00
	Ni-63	.522%	1.99E+00
	Fe-59	.461%	1.76E+00
	Sb-125	.134%	5.10E-01
	C-14	.048%	1.85E-01
	Sb-124	.032%	1.22E-01
	H-3	.014%	5.51E-02
	Pu-241	.005%	2.09E-02
	Sr-90	.005%	1.77E-02
	Am-241	.000%	3.10E-04
	Pu-238	.000%	2.38E-04
	Cm243/44	.000%	2.04E-04
	Cm-242	.000%	1.67E-04
	I-129	.000%	0.00E+00
	Tc-99	.000%	0.00E+00
	Nb-94	.000%	0.00E+00
	Ni-59	.000%	0.00E+00

** Estimates of Major Nuclides by Waste Class and Stream **
 Waste Stream: Resins, Filters, & Evap Bottoms with 0 % Cutoff.

Waste Class	Nuclide Name	Percent Abundance	Curies
-----	-----	-----	-----
B	Co-60	65.274%	5.03E+02
	Fe-55	14.581%	1.12E+02
	Mn-54	10.516%	8.10E+01
	Cs-137	6.080%	4.69E+01
	Zn-65	1.417%	1.09E+01
	Co-58	1.118%	8.62E+00
	Ni-63	.588%	4.53E+00
	Cr-51	.297%	2.29E+00
	C-14	.067%	5.18E-01
	Ag-110m	.019%	1.45E-01
	H-3	.012%	9.61E-02
	Sr-90	.003%	2.55E-02
	Pu-241	.003%	2.16E-02
	Sr-89	.001%	4.44E-03
	Ce-144	.000%	2.90E-03
	Am-241	.000%	9.27E-04
	Cm-242	.000%	2.51E-04
	Cm243/44	.000%	2.49E-04
	Pu-238	.000%	1.26E-04
	Pu239/40	.000%	8.07E-05
	I-129	.000%	0.00E+00
	Tc-99	.000%	0.00E+00
	Nb-94	.000%	0.00E+00
	Ni-59	.000%	0.00E+00

** Estimates of Major Nuclides by Waste Class and Stream **
Waste Stream: Resins, Filters, & Evap Bottoms with 0 % Cutoff.

Waste Class	Nuclide Name	Percent Abundance	Curies
-----	-----	-----	-----
C	Co-60	49.071%	1.32E+01
	Fe-55	42.193%	1.14E+01
	Mn-54	6.071%	1.63E+00
	Cs-137	1.767%	4.75E-01
	Ni-63	.612%	1.64E-01
	H-3	.230%	6.18E-02
	Ce-144	.073%	1.96E-02
	Pu-241	.057%	1.54E-02
	C-14	.024%	6.48E-03
	Am-241	.014%	3.64E-03
	Cm243/44	.009%	2.34E-03
	Cm-242	.001%	3.44E-04
	Pu-238	.001%	3.01E-04
	Sr-90	.001%	1.77E-04
	Pu239/40	.001%	1.46E-04
	I-129	.000%	0.00E+00
	Tc-99	.000%	0.00E+00
	Nb-94	.000%	0.00E+00
	Ni-59	.000%	0.00E+00

** Estimates of Major Nuclides by Waste Class and Stream **
 Waste Stream: Resins, Filters, & Evap Bottoms with 0 % Cutoff.

Waste Class	Nuclide Name	Percent Abundance	Curies
-----	-----	-----	-----
All	Co-60	63.445%	7.48E+02
	Fe-55	16.225%	1.91E+02
	Mn-54	10.542%	1.24E+02
	Cs-137	5.994%	7.07E+01
	Zn-65	1.292%	1.52E+01
	Co-58	.970%	1.14E+01
	Cr-51	.627%	7.39E+00
	Ni-63	.567%	6.69E+00
	Fe-59	.149%	1.76E+00
	C-14	.060%	7.10E-01
	Sb-125	.043%	5.10E-01
	H-3	.018%	2.13E-01
	Ag-110m	.012%	1.45E-01
	Sb-124	.010%	1.22E-01
	Pu-241	.005%	5.79E-02
	Sr-90	.004%	4.34E-02
	Ce-144	.002%	2.25E-02
	Am-241	.000%	4.87E-03
	Sr-89	.000%	4.44E-03
	Cm243/44	.000%	2.79E-03
	Cm-242	.000%	7.63E-04
	Pu-238	.000%	6.66E-04
	Pu239/40	.000%	2.27E-04
	I-129	.000%	0.00E+00
	Tc-99	.000%	0.00E+00
	Nb-94	.000%	0.00E+00
	Ni-59	.000%	0.00E+00

** Estimates of Major Nuclides by Waste Class and Stream **
Waste Stream: Dry Active Waste with 0 % Cutoff.

Waste Class	Nuclide Name	Percent Abundance	Curies
-----	-----	-----	-----
A	Co-60	49.235%	8.87E+00
	Fe-55	41.572%	7.49E+00
	Ni-63	3.076%	5.54E-01
	Mn-54	1.944%	3.50E-01
	Cs-137	1.771%	3.19E-01
	Ce-144	1.238%	2.23E-01
	Pu-241	.547%	9.85E-02
	C-14	.404%	7.29E-02
	H-3	.152%	2.73E-02
	Cm243/44	.005%	9.20E-04
	Am-241	.002%	3.91E-04
	Pu-238	.001%	2.69E-04
	Sr-90	.001%	9.67E-05
	Cm-242	.000%	9.58E-07
	I-129	.000%	0.00E+00
	Tc-99	.000%	0.00E+00
	Nb-94	.000%	0.00E+00
	Ni-59	.000%	0.00E+00

** Estimates of Major Nuclides by Waste Class and Stream **
Waste Stream: Dry Active Waste with 0 % Cutoff.

Waste Class	Nuclide Name	Percent Abundance	Curies
-----	-----	-----	-----
All	Co-60	49.235%	8.87E+00
	Fe-55	41.572%	7.49E+00
	Ni-63	3.076%	5.54E-01
	Mn-54	1.944%	3.50E-01
	Cs-137	1.771%	3.19E-01
	Ce-144	1.238%	2.23E-01
	Pu-241	.547%	9.85E-02
	C-14	.404%	7.29E-02
	H-3	.152%	2.73E-02
	Cm243/44	.005%	9.20E-04
	Am-241	.002%	3.91E-04
	Pu-238	.001%	2.69E-04
	Sr-90	.001%	9.67E-05
	Cm-242	.000%	9.58E-07
	I-129	.000%	0.00E+00
	Tc-99	.000%	0.00E+00
	Nb-94	.000%	0.00E+00
	Ni-59	.000%	0.00E+00

** Estimates of Major Nuclides by Waste Class and Stream **
 Waste Stream: Sum of All 4 Categories with 0 % Cutoff.

Waste Class	Nuclide Name	Percent Abundance	Curies
-----	-----	-----	-----
A	Co-60	60.246%	2.41E+02
	Fe-55	18.790%	7.51E+01
	Mn-54	10.506%	4.20E+01
	Cs-137	5.924%	2.37E+01
	Cr-51	1.276%	5.10E+00
	Zn-65	1.082%	4.33E+00
	Co-58	.708%	2.83E+00
	Ni-63	.637%	2.55E+00
	Fe-59	.440%	1.76E+00
	Sb-125	.128%	5.10E-01
	C-14	.065%	2.58E-01
	Ce-144	.056%	2.23E-01
	Sb-124	.031%	1.22E-01
	Pu-241	.030%	1.19E-01
	H-3	.021%	8.24E-02
	Sr-90	.004%	1.78E-02
	Cm243/44	.000%	1.12E-03
	Am-241	.000%	7.01E-04
	Pu-238	.000%	5.07E-04
	Cm-242	.000%	1.68E-04
	I-129	.000%	0.00E+00
	Tc-99	.000%	0.00E+00
	Nb-94	.000%	0.00E+00
	Ni-59	.000%	0.00E+00

** Estimates of Major Nuclides by Waste Class and Stream **
Waste Stream: Sum of All 4 Categories with 0 % Cutoff.

Waste Class	Nuclide Name	Percent Abundance	Curies
-----	-----	-----	-----
B	Co-60	65.274%	5.03E+02
	Fe-55	14.581%	1.12E+02
	Mn-54	10.516%	8.10E+01
	Cs-137	6.080%	4.69E+01
	Zn-65	1.417%	1.09E+01
	Co-58	1.118%	8.62E+00
	Ni-63	.588%	4.53E+00
	Cr-51	.297%	2.29E+00
	C-14	.067%	5.18E-01
	Ag-110m	.019%	1.45E-01
	H-3	.012%	9.61E-02
	Sr-90	.003%	2.55E-02
	Pu-241	.003%	2.16E-02
	Sr-89	.001%	4.44E-03
	Ce-144	.000%	2.90E-03
	Am-241	.000%	9.27E-04
	Cm-242	.000%	2.51E-04
	Cm243/44	.000%	2.49E-04
	Pu-238	.000%	1.26E-04
	Pu239/40	.000%	8.07E-05
	I-129	.000%	0.00E+00
	Tc-99	.000%	0.00E+00
	Nb-94	.000%	0.00E+00
	Ni-59	.000%	0.00E+00

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Report Date : 08/01/96

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** Estimates of Major Nuclides by Waste Class and Stream **

Waste Stream:Sum of All 4 Categories

with 0 % Cutoff.

Waste Class	Nuclide Name	Percent Abundance	Curies
-----	-----	-----	-----
C	Co-60	49.071%	1.32E+01
	Fe-55	42.193%	1.14E+01
	Mn-54	6.071%	1.63E+00
	Cs-137	1.767%	4.75E-01
	Ni-63	.612%	1.64E-01
	H-3	.230%	6.18E-02
	Ce-144	.073%	1.96E-02
	Pu-241	.057%	1.54E-02
	C-14	.024%	6.48E-03
	Am-241	.014%	3.64E-03
	Cm243/44	.009%	2.34E-03
	Cm-242	.001%	3.44E-04
	Pu-238	.001%	3.01E-04
	Sr-90	.001%	1.77E-04
	Pu239/40	.001%	1.46E-04
	I-129	.000%	0.00E+00
	Tc-99	.000%	0.00E+00
	Nb-94	.000%	0.00E+00
	Ni-59	.000%	0.00E+00

** Estimates of Major Nuclides by Waste Class and Stream **
 Waste Stream: Sum of All 4 Categories with 0 % Cutoff.

Waste Class	Nuclide Name	Percent Abundance	Curies
-----	-----	-----	-----
All	Co-60	63.231%	7.57E+02
	Fe-55	16.607%	1.99E+02
	Mn-54	10.413%	1.25E+02
	Cs-137	5.931%	7.10E+01
	Zn-65	1.273%	1.52E+01
	Co-58	.956%	1.14E+01
	Cr-51	.617%	7.39E+00
	Ni-63	.605%	7.24E+00
	Fe-59	.147%	1.76E+00
	C-14	.065%	7.82E-01
	Sb-125	.043%	5.10E-01
	Ce-144	.021%	2.46E-01
	H-3	.020%	2.40E-01
	Pu-241	.013%	1.56E-01
	Ag-110m	.012%	1.45E-01
	Sb-124	.010%	1.22E-01
	Sr-90	.004%	4.35E-02
	Am-241	.000%	5.26E-03
	Sr-89	.000%	4.44E-03
	Cm243/44	.000%	3.71E-03
	Pu-238	.000%	9.34E-04
	Cm-242	.000%	7.64E-04
	Pu239/40	.000%	2.27E-04
	I-129	.000%	0.00E+00
	Tc-99	.000%	0.00E+00
	Nb-94	.000%	0.00E+00
	Ni-59	.000%	0.00E+00

*** Solid Waste Disposition Summary ***

During Period From 01/01/96 to 07/01/96

Number of Shipments	Mode of Transportation	Destination
30	TRUCK	Barnwell
30	TRUCK	Processors