

FLORIDA POWER & LIGHT COMPANY  
TURKEY POINT PLANT  
SEMIANNUAL REPORT  
JANUARY 1988 THROUGH JUNE 1988  
UNITS 3 AND 4 TABLE

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

A. SOLID WASTE SHIPPED OFFSITE FOR BURIAL OR DISPOSAL

1.	<u>TYPE OF WASTE</u>	<u>UNIT</u>	<u>6 MO PERIOD</u>	<u>%ERR</u>
a.	Spent resin, filter, sludge evaporator bottoms, etc.	m <sup>3</sup> Cf	3.13 E1 5.19 E2	20
b.	Dry compressable waste (NOTE 1)	m <sup>3</sup> Cf	1.59 E1 2.67 E-2	
c.	Irradiated components, control rods, etc.	m <sup>3</sup> Cf	0.00 E0 0.00 E0	20
d.	Other non-compressable metal waste (NOTE 2)	m <sup>3</sup> Cf	1.80 E0 2.33 E-2	20

2. ESTIMATE OF MAJOR NUCLIDE COMPOSITION BY TYPE OF WASTE

a.	Co-60	%	54
	Fe-55	%	17
	Ni-63	%	9
	Cs-137	%	9
	Cs-134	%	3
	I-131	%	3
	Co-58	%	2
	Sb-125	%	1
	Mn-54	%	1
b.	Fe-55	%	41
	Co-60	%	38
	Co-58	%	7
	Ni-63	%	7
	Mn-54	%	2
	TRU	%	1
	Sb-125	%	1
	Nb-95	%	1
c.	_____	_____	_____
d.	Cs-137	%	100

3. SOLID WASTE DISPOSITION

No. of Shipments	Mode of Transportation	Destination
9	Sole use truck	Barnwell, SC
2 (NOTE 3)	Sole use truck	Oak Ridge, TN

B. IRRADIATED FUEL SHIPMENTS NONE



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 SOLID WASTE SUPPLEMENT

Waste Classification	Total Volume Ft3	(NOTE 5) Total Curie Quantity	(NOTE 6) Principal Radionuclides	(NOTE 7) Type of Waste	R.G. 1.21 Category	(NOTE 8) Type of Container	Solidification or Absorbent Agent
Class A	2896.3 (Note 4)	38.78	Ni-63, Cs-137 Sr-90	PWR Ion Exchange Resins and PWR Compactable and non- Compactable Trash	1.a,b	Non-Spec Strong.	N/A
Class B	500.4	479.6	Sr-90, Ni-63 Co-60, Cs-137 T1/2 < 5 yr.	PWR Ion Exchange Resins	1.a	HRC Certified LSA > Type A	N/A



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- NOTE 1: Dry Compressible Waste Volume indicates volume shipped to burial site following volume reduction by a waste processing facility. Volume shipped to the waste processing facility was 2.86 El m<sup>3</sup>.
- NOTE 2: Other noncompressable metal waste indicates volume shipped to burial site following decontamination and volume reduction by a waste processing facility. Volume shipped to the waste processing facility was 3.62 El m<sup>3</sup>.
- NOTE 3: Material transported to Oak Ridge, Tennessee, was consigned to licensed processing facilities for volume reduction activities. The remaining material was transported by the processor to Barnwell, S.C. for burial.
- NOTE 4: Volume listed is composed of waste shipped to the burial site by contracted waste processing and volume reduction facilities and dewatered ion exchange resins shipped from Turkey Point Plant.
- NOTE 5: The total curie quantity and radionuclide composition of solid waste shipped from the Turkey Point Units 3 & 4 are determined using a combination of qualitative and quantitative techniques. In general, the Turkey Point Plant follows the guidelines outlined in the Low Level Waste Licensing Branch Technical Position (BTP) on Radioactive Waste Classification (5/11/83) for these determinations.

The most frequently used techniques for determining the total curie quantity in a package are the dose to curie methods and the (concentration) x (Volume or Mass) calculations. Where appropriate, engineering type activation analyses may be applied. Since each of the above methodologies involves to some extent qualitative parameters, the total curie quantity is considered to be an estimate.

The composition of radionuclides in the waste is determined by both on-site analyses for principal gamma emitters and periodic off-site analyses for difficult to measure isotopes. The on-site analyses are performed either on a batch basis or on a routine basis using reasonably representative samples as appropriate for the waste type. Off-site analyses are used to establish scaling factors or other estimates for difficult to measure isotopes.



- NOTE 6: "Principal Radionuclides" refer to those radionuclides contained in the waste in concentrations greater than .01 times the concentration of the nuclide listed in Table 1 or .01 times the smallest concentration of that nuclide listed in Table 2 of 10CFR61.
- NOTE 7: "Type of Waste" is generally specified as described in NUREG 0782, Draft Environment Impact Statement on 10CFR61 "Licensing Requirements for Land Disposal of Radioactive Waste".
- NOTE 8: "Type of Container" refers to the transport package.
- NOTE 9: PWR secondary resins shipped in casks. DAW shipped in non-specification, strong, tight containers.

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