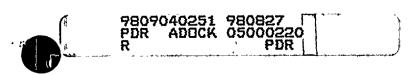
NINE MILE POINT NUCLEAR STATION - UNIT 1 SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

JANUARY - JUNE 1998

NIAGARA MOHAWK POWER CORPORATION



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NINE MILE POINT NUCLEAR STATION - UNIT 1 SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT

JANUARY - JUNE 1998

SUPPLEMENTAL INFORMATION

Facility: Nine Mile Point Unit #1

Licensee: Niagara Mohawk Power Corporation

1. TECHNICAL SPECIFICATION LIMITS

A) FISSION AND ACTIVATION GASES

- 1. The dose rate limit of noble gases released in gaseous effluents from the site to areas at and beyond the site boundary shall be less than or equal to 500 mrem/year to the total body and less than or equal to 3000 mrem/year to the skin.
- 2. The air dose due to noble gases released in gaseous effluents from Nine Mile Point Unit 1 to areas at and beyond the site boundary shall be limited during any calendar quarter to less than or equal to 5 milliroentgen for gamma radiation and less than or equal to 10 mrad for beta radiation, and during any calendar year to less than or equal to 10 milliroentgen for gamma radiation and less than or equal to 20 mrad for beta radiation.

B&C) TRITIUM, IODINES AND PARTICULATES, HALF LIVES > 8 DAYS

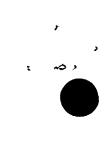
- 1. The dose rate limit of Iodine-131, Iodine-133, Tritium and all radionuclides in particulate form with half-lives greater than eight days, released in gaseous effluents from the site to areas at and beyond the site boundary shall be less than or equal to 1500 mrem/year to any organ.
- 2. The dose to a member of the public from Iodine-131, Iodine-133, Tritium and all radionuclides in particulate form with half-lives greater than eight days in gaseous effluents released from Nine Mile Point Unit 1 to areas at and beyond the site boundary shall be limited during any calendar quarter to less than or equal to 7.5 mrem to any organ and, during any calendar year to less than or equal to 15 mrem to any organ.

D) LIQUID EFFLUENTS

- 1. The concentration of radioactive material released in liquid effluents to unrestricted areas shall be limited to the concentrations specified in 10 CFR Part 20, Appendix B, Table II, Column 2 for radionuclides other than dissolved or entrained noble gases. For dissolved or entrained noble gases, the concentration shall be limited to 2E-04 microcuries/ml total activity.
- 2. The dose or dose commitment to a member of the public from radioactive materials in liquid effluents released from Nine Mile Point Unit 1 to unrestricted areas shall be limited during any calendar quarter to less than or equal to 1.5 mrem to the total body and to less than or equal to 5 mrem to any organ, and during any calendar year to less than or equal to 3 mrem to the total body and to less than or equal to 10 mrem to any organ.









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MEASUREMENTS AND APPROXIMATIONS OF TOTAL RADIOACTIVITY

Described below are the methods used to measure or approximate the total radioactivity and radionuclide composition in effluents.

A) FISSION AND ACTIVATION GASES

Noble gas effluent activity is determined by on-line gamma spectroscopic monitoring (intrinsic germanium crystal) or gross activity monitoring (calibrated against gamma isotopic analysis of a 4.0L Marinelli grab sample) of an isokinetic stack sample stream.

B) IODINES

Iodine effluent activity is determined by gamma spectroscopic analysis (at least weekly) of charcoal cartridges sampled from an isokinetic stack sample stream.

C) PARTICULATES

Activity released from the main stack is determined by gamma spectroscopic analysis (at least weekly) of particulate filters sampled from an isokinetic sample stream and composite analysis of the filters for non-gamma emitters.

D) TRITIUM

Tritium effluent activity is measured by liquid scintillation or gas proportional counting of monthly samples taken with an air sparging/water trap apparatus.

E) EMERGENCY CONDENSER VENT EFFLUENTS

The effluent curie quantities are estimated based on the isotopic distribution in the Condensate Storage Tank water and the Emergency Condenser shell water. Actual isotopic concentrations are found via gamma spectroscopy. Initial release rates of Sr-89, Sr-90 and Fe-55 are estimated by applying scaling factors to release rates of gamma emitters and actual release rates are determined from post offsite analysis results. The activity of fission and activation gases released due to tube leaks is based on reactor steam leak rates using offgas isotopic analyses.

F) LIQUID EFFLUENTS

Isotopic contents of liquid effluents are determined by isotopic analysis of a representative sample of each batch and composite analysis of non-gamma emitters.

G) SOLID EFFLUENTS

Isotopic contents of waste shipments are determined by gamma spectroscopy analysis of a representative sample of each batch. Scaling factors established from primary composite sample analyses conducted off-site are applied, where appropriate, to find estimated concentration of non-gamma emitters. For low activity trash shipments, curie content is estimated by dose rate measurement and application of appropriate scaling factors.



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ATTACHMENT 1 Summary Data

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Unit 1 <u>X</u>	Unit 2		Reporting Period January - June 1998
Liquid Efflue	nts:		
	10CFR20, Appendix B, Table II, Column 2		
	Average MPC - uCl/ml (Qtr. 1) = N/A Average MPC - uCl/ml (Qtr. 2) = N/A		
Average Ene	rgy (Fission and Activation gases -Mev):		
	Qtr. 1 : $\hat{E}_Y = 2.47E-01$ Qtr. 2 : $\hat{E}_Y = N/A$		$ \rho = \frac{3.17E-01}{\rho} = \frac{N/A}{2} $
Liquid: There	e were no batch liquid releases during the reporting per	iod.	
	Number of batch releases	:	<u>0</u>
	Total time period for batch releases (hrs)	:	<u>N/A</u>
	Maximum time period for a batch release (hrs)	:	<u>N/A</u>
	Average time period for a batch release (hrs)	:	<u>N/A</u>
	Minimum time period for a batch release (hrs)	:	<u>N/A</u>
	Total volume of water used to dilute the liquid effluent during release period (L)	:	<u>N/A</u>
	Total volume of water used to dilute the liquid effluent during reporting period (L)	:	<u>2.52E+11</u>
Gaseous (En	nergency Condenser Vent): There were no releases	from 1	he operation of the Emergency Condenser Vent.
	Number of batch releases	:	<u>0</u>
	Total time period for batch releases (hrs)	:	N/A
·	Maximum time period for a batch release (hrs)	:	N/A
	Average time period for a batch release (hrs)	:	N/A
	Minimum time period for a batch release (hrs)	:	<u>N/A</u>
Gaseous (Pri	mary Containment Purge):		
	Number of batch releases	:	1
	Total time period for batch releases (hrs)	:	<u>1.52E+01</u>
	Maximum time period for a batch release (hrs)	:	<u>1.52E+01</u>
	Average time period for a batch release (hrs)	:	<u>1.52E+01</u>
	Minimum time period for a batch release (hrs)	:	<u>1.52E+01</u>







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Unit 1 X Ur	nit 2		Reporting Period January - June
Abnormal Rele	ases: There were no ab	normal releases during the reportin	g period.
A. Liquids:			
	Number of releases	<u>0</u>	
	Total activity released	<u>N/A</u> Ci	
B. Gaseous:			
	Number of releases	<u>0</u>	
	Total activity released	<u>N/A</u> Ci	

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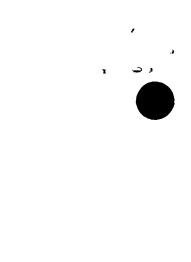


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	GASEOUS EFFLUENTS - SUMMATION OF ALL	. RELEASES, ELE	VATED AND GR	OUND LEVEL	
			<u>_1</u> * QUARIER	<u>2~</u> QUARTER	EST. TOTA ERROR. 9
Α.	Fission & Activation gases' 1. Total release 2. Average release rate	Cl µCl/sec	<u>2.54E-02</u> 3.27E-03		5.00E+01
В.	<u>lodines</u> 1. Total lodine-131 2. Average release rate for period	Cl µCl/sec	<u>4.66E-06</u> 5.99E-07	<u>2.94E-05</u> <u>3.96E-06</u>	3.00E+01
С.	Particulates ² Particulates with half-lives >8 days Average release rate for period Gross alpha radioactivity 	Ci µCi/sec Ci	<u>2.73E-04</u> <u>3.52E-05</u> <u>3.27E-05</u>	<u>5.44E-04</u> <u>7.32E-05</u> <u>5.37E-05</u>	3.00E+01 2.50E+01
D.	<u>Tritium²</u> 1. Total release 2. Average release rate for period	Ci µCi/sec	<u>1.42E+01</u> <u>1.82E+00</u>	<u>3.36E+01</u> <u>4.53E+00</u>	5.00E+0
Ε.	Percent of Tech. Spec. Limits Fission and Activation Gases Percent of Quarterly Gamma Alr Dose Limit (5 mR) Percent of Quarterly Beta Alr Dose Limit (10 mrad) Percent of Annual Gamma Alr Dose Limit to Date (10 mR) Percent of Annual Beta Alr Dose Limit to Date (20 mrad) Percent of Whole Body Dose Rate Limit (500 mrem/yr) Percent of Skin Dose Rate Limit (3000 mrem/yr)	% % % %	1.21E-04 5.25E-05 6.07E-05 2.62E-05 3.26E-06 1.18E-06	** ** <u>6.07E-05</u> <u>2.62E-05</u> ** *	
	<u>Iritium, lodines, and Particulates²</u> (with half-lives greater than 8 days) Percent of Quarterly Dose Limit (7.5 mrem) Percent of Annual Dose Limit	%	<u>1.49E-01</u> 7.50E-02	<u>1.81E-01</u> 2.04E-01	
	(15 mrem) Percent of Organ Dose Rate Limit (1500 mrem/vr)	%	<u>3.02E-03</u>	<u>3.85E-03</u>	

ī Concentrations less than the lower limit of detection of the counting system used are indicated with a double asterisk.

(1500 mrem/yr)

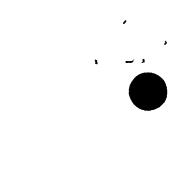
2 Tritium, Iron-55, and Strontium results for the second quarter were not received from the off-site vendor at the time of this report. These numbers include estimates, and actual numbers will be provided in the next Semi-Annual Report.



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GASEOUS EFFLUENTS - ELEVATED RELEASE

ATTACHMENT 3

			CONTINUC	DUS MODE ³
Nuclides Released			<u>l"</u> QUARIER	<u>_2™</u> QUARIER
1. Fission Gases				
Argon-41 Krypton-85 Krypton-85m Krypton-87 Krypton-88 Xenon-127 Xenon-133 Xenon-133m Xenon-135 Xenon-135m Xenon-137 Xenon-138		00000000000000		
2. <u>lodines</u> ¹ lodine-131 lodine-133 lodine-135		<u>ច</u> ច ច ច	4.66E-06 8.30E-04	<u>2.94E-05</u> <u>4.54E-04</u>
3. Particulates ^{1,2} Strontium-89 Strontium-90 Cesium-134 Cesium-137 Cobalt-60 Cobalt-58 Manganese-54 Barium-Lanthanum-140 Antimony-125 Niobium-95 Cerium-141 Cerium-144 Iron-59 Cesium-136 Chromium-51 Zinc-65 Iron-55 Molybdenum-99	ð	000000000000000000000000000000000000000	1.76E-05 9.95E-06 2.18E-04 4.97E-06 2.03E-05 	2.92E-04 3.65E-05 8.24E-05
4. <u>Tritium</u> ²		Ci	<u>1.915+00</u>	<u>2.07E+01</u>

Concentrations less than the lower limit of detection of the counting system used are indicated with a double asterisk. A lower limit of detection of 1.00E-04 µCi/ml for required noble gases, 1.00E-11 µCi/ml for required particulates, 1.00E-12 µCi/ml for required lodines, and 1.00E-06 µCi/ml for Tritium, as required by Technical Specifications, has been verified.

Tritium, Iron-55, and Strontium results for the second quarter were not received from the off-site vendor at the time of this report. These numbers include estimates and actual numbers will be included in the next Semi-Annual Report.

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Contributions from purges are included.





ATTACHMENT 4

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Unit 1 <u>X</u>	Unit 2				Rep	orting Period Jar	<u>nuary - June 1998</u>
		GASEOUS EFF	LUENT	S - GROUND LE	VEL RELEASES		
Ground lev	vel releases a	are determined in accordanc	ce with	the Off-Site Do	ose Calculation M	lanual and Chem	istry procedures.
				CONTINU	UOUS MODE	There wer releases	H MODE re no batch during the ling period.
				<u>_1"</u> QUARIER	<u>_2™</u> QUARIER	L" QUARIER	<u>_2™</u> QUARTER
	۱.	Fission Gases ¹					
		Argon-41 Krypton-85 Krypton-85m Krypton-87 Krypton-88 Xenon-133 Xenon-133 Xenon-135 Xenon-135 Xenon-137 Xenon-138 Xenon-127	000000000000000000000000000000000000000	1.45E-03	: : : : : : : : : : : : : : : : : : : :		
	2.	lodines ¹					
		lodine-131 lodine-133 lodine-135	CI CI CI	::::	:::::::::::::::::::::::::::::::::::::::		
	3.	Particulates ^{1,2}					
		Strontium-89 Strontium-90 Cesium-134 Cesium-137 Cobalt-60 Cobalt-58 Manganese-54 Barium-Lanthanum-140 Antimony-125 Niobium-95 Cerium-141 Cerium-144 Iron-59 Cesium-136 Chromium-51 Zinc-65 Iron-55 Molybdenum-99	000000000000000000000000000000000000000	:: :: 1.98E-06 6.94E-08 6.13E-07 :: :: :: :: :: :: ::	2.96E-07 3.56E-08 1.29E-06 2.61E-07 9.05E-07 		
	4.	Idtium	сі	<u>1,23E+01</u>	<u>1.29E+01</u>		
		s than the lower limit of detec I Strontium results for the secc					

 ² Tritium, Iron-55, and Strontium results for the second quarter were not received from the off-site vendor at the time of this report. These numbers include estimates and actual numbers will be included in the next Semi-Annual Report.

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ATTACHMENT 5

Page 1 of 2

Unit 1 X_ Unit 2 __

Reporting Period January - June 1998

	LIQUID EFFLUENTS - SUMMATIO	N OF ALL RE			
			L". QUARTER	<u>_2™</u> QUARTER	EST. TOTAL ERROR. %
А.	Fission & Activation Products1. Total release (not including Tritium, gases, alpha)2. Average diluted concentration during reporting period	Ci µCi/mì	No Releases No Releases	No Releases No Releases	5.00E+01
В.	<u>Iritium</u> 1. Total release 2. Average diluted concentration during reporting period	Ci µCi/mi	No Releases No Releases	No Releases No Releases	5.00E+01
C.	Dissolved and Entrained Gases 1. Total release 2. Average diluted concentration during reporting period	Ci µCi/mi	No Releases No Releases	No Releases No Releases	5.00E+01
D.	<u>Gross Alpha Radioactivity</u> 1. Total release	CI	No Releases	No Releases	5.00E+01
E.	 <u>Volumes</u> Prior to dilution Volume of dilution water used during release period Volume of dilution water available during reporting period: 	Liters Liters Liters	No Releases No Releases <u>1.30E+11</u>	No Releases No Releases <u>1.22E+11</u>	5.00E+01 5.00E+01 5.00E+01
F.	Percent of Technical Specification Limits Percent of Quarterly Whole Body Dose Limit (1.5 mrem) Percent of Quarterly Organ Dose Limit (5 mrem) Percent of Annual Whole Body Dose Limit to Date (3 mrem) Percent of Annual Organ Dose Limit to Date (10 mrem) Percent of 10CFR20 Concentration Limit Percent of Dissolved or Entrained Noble Gas Limit (2.00E-04 μ Ci/ml)	* * * * *	No Releases No Releases No Releases No Releases No Releases No Releases	No Releases No Releases No Releases No Releases No Releases No Releases	

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ATTACHMENT 5

Page 2 of 2

Unit 1 X Unit 2 _

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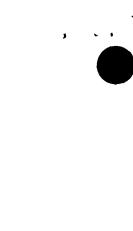
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Reporting Period	<u>January - June 1998</u>

	LIQUID EFFLUENTS RELE		· · · · · · · · · · · · · · · · · · ·
			CH MODE'
		<u>1</u> *	2**
Nuclides Released		QUARTER	<u>QUARTER</u>
Strontium-89	Cl	No Releases	No Releases
Strontium-90	Ci	No Releases	No Releases
Cesium-134	CI	No Releases	No Releases
Cesium-137	Ci	No Releases	No Releases
lodine-131	CI	No Releases	No Releases
Cobalt-58	CI	No Releases	No Releases
Cobalt-60	CI	No Releases	No Releases
Iron-59	CI	No Releases	No Releases
Zinc-65	CI	No Releases	No Releases
Manganese-54	CI	No Releases	No Releases
Chromium-51	CI	No Releases	No Releases
Zirconium-Niobium-95	CI	No Releases	No Releases
Molybdenum-99	CI	No Releases	No Releases
lechnetium-99m	CI	No Releases	No Releases
Barium-Lanthanum-140	CI	No Releases	No Releases
Cerium-141	CI	No Releases	No Releases
Tungsten-187	Ci	No Releases	No Releases
Arsenic-76	CI	No Releases	No Releases
odine-133	CI	No Releases	No Releases
ron-55	CI	No Releases	No Releases
Neptunium-239	CI	No Releases	No Releases
Praseodymium-144	CI	No Releases	No Releases
odine-135	Ci	No Releases	No Releases
Dissolved or Entrained Gases	Ci		
		No Releases	No Releases
fritium	CI	No Releases	No Releases

¹ No continuous mode release occurred during the report period.





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ATTACHMENT 6

Page 1 of 6

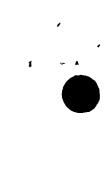
Unit 1 _X_ Unit 2				Repor	ting Period <u>Janu</u>	ary <u>- June 1998</u>
	SOLID	WASTE AND IR	RADIATED FUEL	SHIPMENTS		
A.1 TYPE		<u>Volumə</u> (m³)			<u>Activity</u> ¹ (CI)	
1. Spent Resins, Filter Sludges, Concentrated Waste, Evaporator Bottoms, etc. ^{2,3} (Dewatered)		<u>Closs</u>			Closs	
	А	В	с	A	B	с
	Q	<u>1.12E+01</u>	Q	Q	<u>1.33E+02</u>	Q
2. Dry Compressible Waste, Dry Non- Compressible Waste (Contaminated Equipment)						·
	Q	Q	Q	Q	Q	Q
3. Irradiated Components (Non-Combustible Solid)						
	Q	Q	<u>4.88E+00</u>	Q	Q	<u>5.06E+04</u>
4. Other: Irradiated Components (solid), Filters (dewatered) and non- compactible trash						
-	Q	Q	<u>3.41E+00</u>	Q	Q	<u>1.84E+02</u>
 The estimated total error is 5 Three Unit 1 steel encased h Mile Point during the reporting 	igh integrity co ng period. The	total activity w	/as 7.13E+00 cu	irles and the wast	e volume was 1.4	40E+01m ³ .
³ There was one Unit 1 steel er in Interim storage at Nine Mi volume was 4.67E+00m ³ .	ncased high in le Point during	tegrity contain the reporting (er of waste Clo period. The tot	ass B powdered re al activity was 5.1:	sin and bead res 2E+01 curies and	in mix placed the waste



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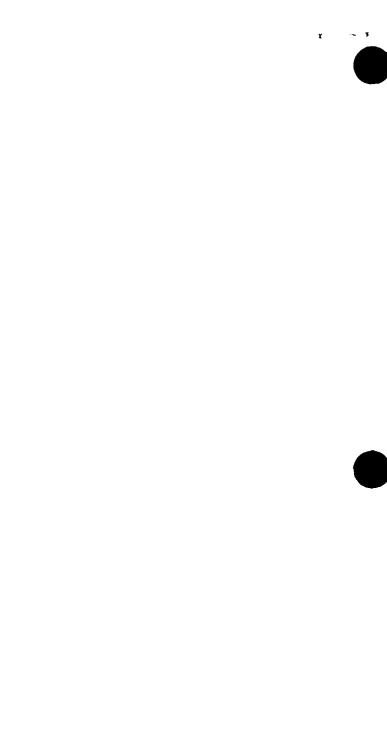
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	ATTACHMENT 6			Page 2 o			
Unit	1 <u>X</u> Unit 2 _	Report	ing Period <u>Jan</u> u	<u>uary - June 199</u>			
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS							
A.1	ТҮРЕ	<u>Container</u>	<u>Package</u>	Solidification			
1.	Spent Resins, Filter Sludges, Concentrated Waste, Evaporator Bottoms, etc. (Dewatered)	HIC	<u> Ivpə A</u> <u>Ivpə A</u>	<u>None</u> None			
		I	L	I			
2.	Dry Compressible Waste, Dry Non-Compressible Waste (Contaminated Equipment)	<u>N/A</u>	<u>N/A</u>	N/A			
		·	ř	r			
3.	Irradiated Components (Non-Combustible Solid)	<u>Steel Liner</u>	<u>Type B</u>	<u>None</u>			
		Steel Liner	<u>Турө В</u>	<u>None</u>			
		<u>Steel Liner</u>	<u>Түрө В</u>	<u>None</u>			
		•		•			
4.	Other: Irradiated Components (Solid), Filters (Dewatered) and Dry Non-Compactible Trash	HIC	<u>Түрө В</u>	<u>None</u>			

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	ATTACHMENT 6	Page 3 o
Unit 1 <u>X</u> Unit 2	Reporti	ing Period <u>January - June 199</u>
SOLID WAS	TE AND IRRADIATED FUEL SHIPMENTS	
A.2 ESTIMATE OF MAJOR NUCLIDE COMPOSITI	ON (BY TYPE OF WASTE)	
a. Spent Resins, Filter Sludges, Concentrated V	Vaste:	
Nuclide (1) Co-60 (2) Cs-137 (3) Fe-55 (4) Mn-54 (5) Other	3. 2. 2. 1.	ercent 53E+01 71E+01 48E+01 15E+01 30E+00
b. Dry Compressible Waste, Dry Non-Compres	ssible Waste (Contaminated Equipment)	: There were no shipments.
Nuclide	P	ercent
c. irradiated Components:		
Nuclide (1) Co-60 (2) Fe-55 (3) Ni-63 (4) Mn-54 (5) Other	6. 3. 2. 1.	ercent 21E+01 39E+01 51E+00 44E+00 .00E-02
d. Other: Irradiated Components, Filters and	Dry Non-Compactible trash	
Nuclide (1) Co-60 (2) Fe-55 (3) Ni-63 (4) Mn-54 (5) Cs-137 (6) Other	4. 4. 3. 2. 1.	ercent 90E+01 41E+01 30E+00 13E+00 06E+00 .10E-01



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	ATTACHMENT 6	Page 4 d		
Unit 1 <u>X</u> Unit 2		Reporting Period January - June 199		
SO	LID WASTE AND IRRADIATED FUEL SHIPM	IENTS		
A.3. SOLID WASTE DISPOSITION:				
Number of Shipments	Mode of Transportation	Destination		
٨	Inck	Barnwell, SC		
B. IRRADIATED FUEL SHIPMENTS (DISPO				
Number of Shipments	Mode of Iransportation	Destination		
Q	N/A	<u>N/A</u>		

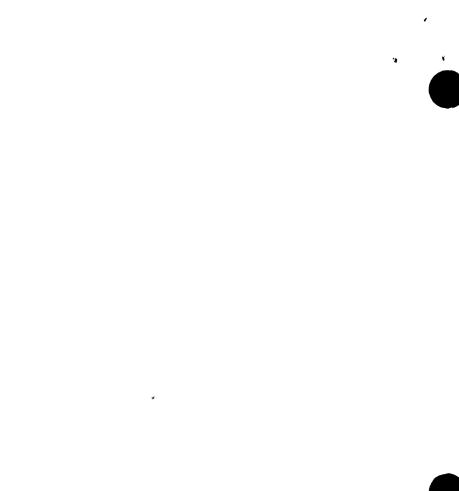
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	AllACh	HMENT 6			<u> Page 5 o</u>	
Unit 1 X. Unit 2			Reporting	Period Janua	ry - June 199	
	SOLID WASTE AND IRRA	DIATED FUE				
C. SOLID WASTE SHIPPED O	FF-SITE TO VENDORS FOR PROG	CESSING AN	ID SUBSEQUENT BUR	RIAL		
reported separately from performed by the vendo of solid waste (as define represents the actual shi	MP-1 radwaste buried by ven n *10CFR61 Solid Waste Shippe ors, and (b) Technical Specific d by 10CFR61) shipped off-site ipments made from the off-site aste, high conductivity waste	ed for Burial ation 6.9.1 r e during the e vendors o	since (a) waste cl equires reporting c reporting period." f our radwaste (e.s	assification and if "information for The following c g., non-compare	l burial was or each clas: Jata cted trash,	
	ncompacted trash, and/or d processed by vendor facilitle		Burial Volumə (m ³)	Activity	Est. Total _ <u>Error. %</u>	
			<u>5.91E+00</u>	<u>3.40E+00</u>	<u>5.00+01</u>	
Nuclide (1) Co-60 (2) Cs-137 (3) Mn-54 (4) Fe-55 (5) Ce-144 (6) Other	Percent 6.10E+01 1.67E+01 1.63E+01 2.68E+00 1.21E+00 2.11E+00					
C.3. SOLID WASTE DISPO	SITION ¹	<u> </u>			·	
Number of Shipments	Mode of Tro	Mode of Transportation		Destination		
4	ĨŒ	Iruck		<u>Barnwell, SC</u>		
2	In	ıck		<u>Clive, UI</u>		
will be processed by the ver vendor performs an analysis icense, and prepares a sepc	iod eleven shipments of NMP- idor and can be commingled of each shipment to determin irate report for each licensee. Report for the period in whic	l with other the volum This Inform	licensees' waste fo ne and activity buri ation Is provided in	r burial. Howev ed under each	ver, the utilitles'	



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ATTACHMENT 6

Page 6 of 6

Unit 1 X Unit 2

Reporting Period January - June 1998

SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

D. SEWAGE WASTES SHIPPED TO A TREATMENT FACILITY FOR PROCESSING AND BURIAL

There were no shipments of sewage sludge with detectable quantities of plant-related nuclides from NMP to the treatment facility during the reporting period.

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Unit 1 X_ Unit 2 ____

Reporting Period January - June 1998

SUMMARY OF CHANGES TO THE OFF-SITE DOSE CALCULATION MANUAL

There were no changes to the Unit 1 Off-Site Dose Calculation Manual during the reporting period.

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ATTACHMENT 7

Unit 1 X_ Unit 2 __

Reporting Period January - June 1998

SUMMARY OF CHANGES TO THE OFF-SITE DOSE CALCULATION MANUAL

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ATTACHMENT 8

Page 1 of 2

Unit 1 X Unit 2

Reporting Period January - June 1998

SUMMARY OF CHANGES TO THE PROCESS CONTROL PROGRAM

The Unit 1 Process Control Program (PCP) revision 4 was implemented in February 1998. An administrative change regarding PCP responsibilities, editorial changes and grammatical corrections were made. The PCP changes do not reduce the overall conformance of the solidified waste product to existing criteria for solid wastes in accordance with Technical Specifications. A copy of the PCP, revision 4 is attached and below is a summary of the changes accepted by the Station Operations Review Committee in February 1998.

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li	I	Table of Contents	Reference to Sections 9 and 10 are deleted from the Table of Contents.	Editorial correction. There are no Sections 9 or 10 in the PCP.		
1	1	2.2	Change responsibility from the Manager Operations to the Manager Radiation Protection.	Administrative change reflecting the current reporting structure of Unit 1 Radwaste Operations.		
10	11	Attachment 1 (Sheet 2)	Changed the word "Cash" to "Cask" under the section on Radiation Protection Procedures.	Editorial correction.		
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ATTACHMENT 8

Page 2 of 2

'Unit 1 <u>X</u> Unit 2 _

Reporting Period January - June 1998

SUMMARY OF CHANGES TO THE PROCESS CONTROL PROGRAM

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7	8	6.2.6	Changed the word "shipments" to "shipment".	"Typographical error".
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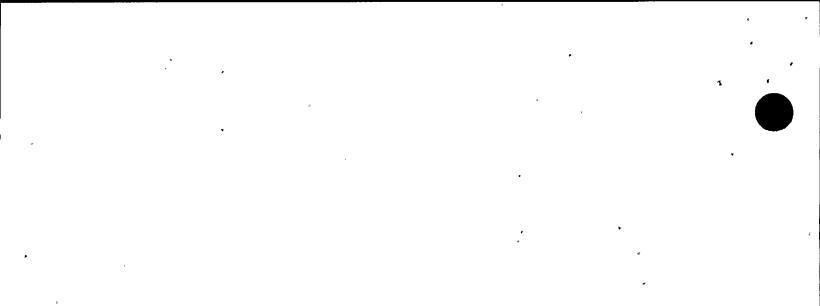
Unit 1 X Unit 2

Reporting Period January - June 1998

SUMMARY OF INOPERABLE MONITORS

There were no inoperable monitors for a period greater than 30 days during the reporting period.





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ATTACHMENT 10

Update of Actual Data for the Fourth Quarter 1997

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Page 1 of 1

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	Unit 1 X Unit 2 Reporting Period July - December 1997							
	UPDATE OF RELEASE AND DOSE DATA FOR GASEOUS (ELEVATED AND GROUND LEVEL) AND LIQUID EFFLUENTS							
	Update of data using actual results from the off-site vendors for Strontium, Tritium, and Iron-55 for the fourth quarter 1997.							
			4	GASEOUS QUARTER 1997	LIQUID <u>4" QUARIER 1997</u>			
	Nuclide			Activity (Ci)	Activ	<u>Activity (Ci)</u>		
	Sr-89	٠		<u>1.11E-05</u> .				
	Sr-90			<u></u>	· ·			
	H-3	-		<u>4.24E+00</u>	1.2	<u>9E-02</u>		
	Fe•55			<u>4.88E-05</u>		••		
ľ	Particulates			· · · ·	GASEOUS	LIQUID		
	rancolaies	1. Particulat lives >8 de	es with half-	Ci	<u>2.50E-04</u>	<u>1.62E-06</u>		
		2. Average i for period	elease rate	μCl/sec (gaseous) μCl/ml (liquid)	<u>3.15E-05</u>	<u>6.45E-10</u>		
	Iditium	1. Total relea 2. Average r for period	elease rate	Ci µCi/sec (gaseous) µCi/mi (liquid)	<u>4.24E+00</u> <u>5.33E-01</u> ,	1.29E-02 5.14E-06		
	Iritium, logines, and Particulates (with holf- lives greater than 8 days)			, , , , , , , , , , , , , , , , , , ,	GASEOUS	LIQUID		
		3. Percent of - Dose Rat (Gaseous) - Dose Lim (Annual & 4. Percent of	r f Annual it to Date ² f Organ e Limit (Quarterly) it (Liquid) Quarterly)	% % %	8.79E-02 (Quarterty) 4.56E-01 (Annual) 1.75E-03 (Quarterty) N/A (Annual) N/A	2.38E-01 (Quarterty) 1.19E-01 (Annual) 2.56E-01 (Quarterty) 1.28E-01 (Annual) 1.73E-01		
	,	5. Percent of or Entraine Gas (Liqui	ed Noble	% `	N/A	=		

¹ Concentrations less than the lower limit of detection, as required by Technical Specifications or station procedures are indicated with a double asterisk.

The dose is to the whole body for liquid effluents and to the maximally exposed organ for gaseous effluents.

³ The percent of the 10CFR20 concentration limit is based on the average concentration during the quarter.



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ATTACHMENT 8

Page 1 of 2

Unit 1 X Unit 2 ____

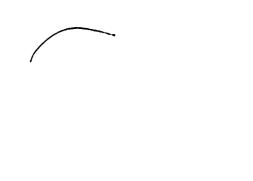
Reporting Period January - June 1998

SUMMARY OF CHANGES TO THE PROCESS CONTROL PROGRAM

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ATTACHMENT 8

Page 2 of 2

Unit 1 X Unit 2

Reporting Period January - June 1998

SUMMARY OF CHANGES TO THE PROCESS CONTROL PROGRAM

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ATTACHMENT 9

Unit 1 X Unit 2 ____

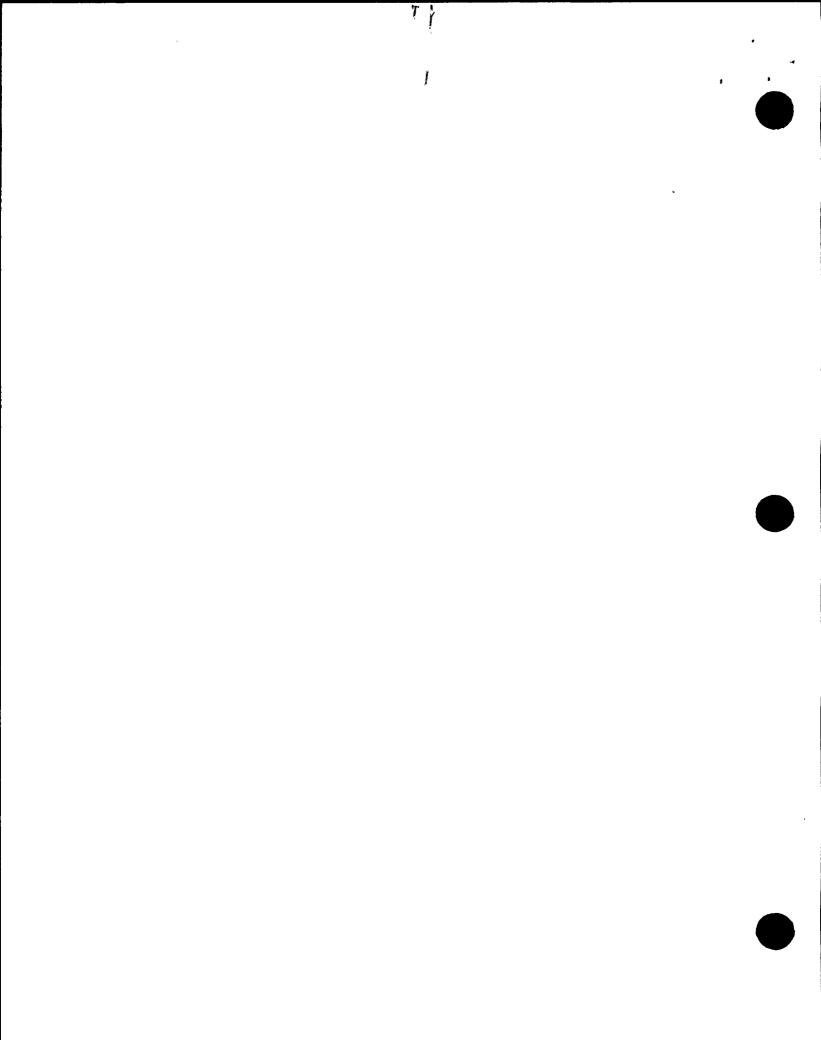
Reporting Period January - June 1998

SUMMARY OF INOPERABLE MONITORS

There were no inoperable monitors for a period greater than 30 days during the reporting period.









ATTACHMENT 10

Update of Actual Data for the Fourth Quarter 1997





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Page 1 of 1

Unit 1 X Unit 2

Reporting Period July - December 1997

UPDATE OF RELEASE AND DOSE DATA FOR GASEOUS (ELEVATED AND GROUND LEVEL) AND LIQUID EFFLUENTS

Update of data using actual results from the off-site vendors for Strontium, Tritium, and Iron-55 for the fourth quarter 1997.

1997.						
		<u>4</u> **	GASEOUS QUARTER 1997	LIQUID 4ª QUARTER 1997		
Nuclide		<u>Activity (CI)</u>		Activity (Ci)		
Sr-89	1		<u>1.11E-05</u>	<u>.</u>		
Sr-90			<u></u>	**		
Н-3		<u>4.24E+00</u>		<u>1.29E-02</u>		
Fe-55		<u>4.88E-05</u>		<u></u>		
Particulates				GASEOUS	LIQUID	
<u>Editorias</u>	1. Particulate lives >8 do		CI	2.50E-04	<u>1.62E-06</u>	
	2. Average release rate for period		μCi/sec (gaseous) μCi/mi (liquid)	<u>3.15E-05</u>	<u>6.45E-10</u>	
Iritium	n 1. Total releas 2. Average rel for period		Ci µCi/sec (gaseous) µCi/mi (liquid)	<u>4.24E+00</u> <u>5.33E-01</u>	<u>1.29E-02</u> <u>5.14E-06</u>	
Iritium, lodines, and Particulates (with half- lives greater than 8 days)				GASEOUS	LIQUID	
	1. Percent of Dose Limit		%	<u>8.79E-02</u> (Quarterly)	2.38E-01	
	2. Percent of	f Annual	%	4.56E-01	(Quarterly) <u>1.19E-01</u>	
	- Dose Lim	i Organ e Limit (Quarterly)	%	(Annual) <u>1.75E-03</u> (Quarterty) <u>N/A</u> (Annual)	(Annual) <u>2.56E-01</u> (Quarterty) <u>1.28E-01</u> (Annual)	
	4. Percent of Concentro (Uquid)	10CFR20 ation Limit ³	%	N/A	<u>1.73E-01</u>	
	5. Percent of or Entraine Gas (Llqui	ed Noble	%	N/A	=	

¹ Concentrations less than the lower limit of detection, as required by Technical Specifications or station procedures are indicated with a double asterisk. ² The data has the static back of the static state of the static state of the state of the

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3.0 PROGRAM							
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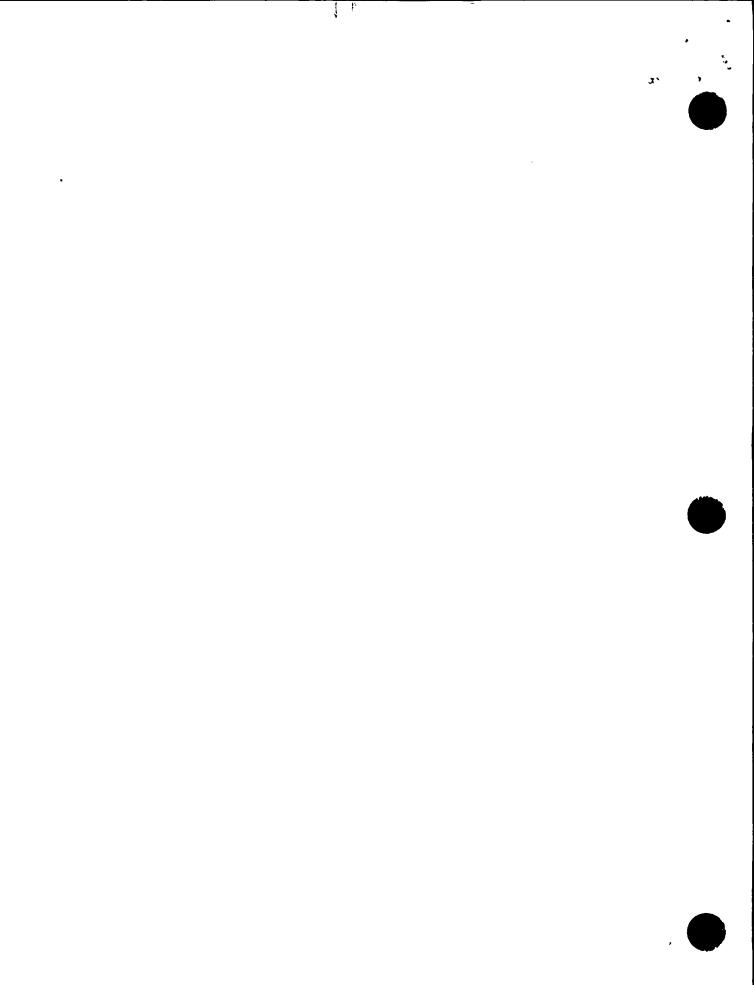
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1.0 PURPOSE

To describe the methods for processing, packaging, transporting, and storing low-level radioactive waste and provide assurance of complete stabilization of various radioactive wastes in accordance with applicable NRC & DOT regulations and guidelines.

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2.0 RESPONSIBILITIES

- 2.1 The Plant Manager is responsible for:
 - 2.1.1 Ensuring the Unit 1 Radwaste Process Control Program provides for the health and safety of the general public as it applies to Radwaste Management.
 - 2.1.2 Reviewing and approving changes to the Unit 1 Radwaste Process Control Program in accordance with the applicable Technical Specification.
- 2.2 The Radiation Protection Manager is responsible for the content and maintenance of this program.
- 2.3 The General Supervisor Radwaste is responsible for overall implementation of the Radwaste Process Control Program.
- 3.0 PROGRAM
- 3.1 System Description
 - 3.1.1 General
 - The Solid Waste Management System (SWMS) implemented by a. the procedures identified in the Unit 1 Radwaste Process Control Program Implementing Procedures (Attachment 1) collects, reduces the volume, dewaters and packages wet and dry types of radioactive waste in preparation for shipment off-site for further processing or disposal at a licensed burial site. The processing and storage methods used for interim storage are consistent with the present waste form stability requirements.
 - b. Types of solid waste sources are identified in Solid Waste Sources (Attachment 2).



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3.1.1 (Cont)

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- c. Bead resins, powered resins and charcoal are dewatered using approved vendor equipment in:
 - 1. Vendor certified polyethylene containers, or
 - 2. Carbon steel liners, or a
 - 3. High Integrity Container (HIC)
- d. Concentrated wastes are processed off-site to dryness by an approved vendor.
- e. Evaporator bottoms are transferred to a liner in the Radwaste Truck Bay for off-site processing by an approved vendor.
- f. Dry solid trash is collected in the Radwaste Facility, sorted, and set off-site for further separation and processing.
- 3.1.2 Ventilation Systems
 - a. The Radwaste Building Ventilation System provides filtered, conditioned outside air to various areas of the Radwaste Building and exhausts the air to the atmosphere through the Turbine Building stack. (The system maintains the building at a pressure below atmospheric to help prevent any unmonitored air leakage to the environment.)
 - b. The Radwaste Solidification and Storage Building (RSSB) Ventilation System provides filtered, conditioned outside air to selected areas in the RSSB. Recirculation fans continuously filter and condition the air, and exhaust fans, taking a suction on the truck bays, exhaust the air to the Turbine Building stack. (The system maintains the building at a pressure below atmospheric to help prevent any unmonitored air leakage to the environment.)

3.1.3 Crane

a. All liner movements are completed using a remote controlled/operated crane. The movements are facilitated by the use of remote controlled cameras and monitors.





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3.1.3 (Cont)

- b. Liners are moved when required using a ceiling grid coordinated system for placement of the liner.
- c. When liners stored in the RSSB storage area are to be shipped, the liners scheduled for shipment are moved to the East-West Truck Bay and then loaded for transportation.

4.0 RADIOACTIVE WASTES

4.1 <u>Waste Processing System</u>

The General Supervisor Radwaste shall ensure:

- 4.1.1 Radioactive waste is processed using approved equipment with approved procedures.
- 4.1.2 Radioactive waste may be processed using approved vendor equipment and procedures.
- 4.1.3 Radioactive wastes are disposed of in the applicable approved containers.
- 4.1.4 Radioactive waste is transferred into shipping casks in accordance with N1-LWPP-4, Waste Transfers to a Shipping Cask and N1-WHP-4, Cask Loading Procedure.
- 4.1.5 Waste is transferred between units and placed in interim storage in accordance with approved procedures.

4.2 <u>Solid Dry Radioactive Wastes (SDRW)</u>

The General Supervisor Radwaste shall ensure:

- 4.2.1 Low Specific Activity (LSA) Solid Dry Radioactive Waste (SDRW) is collected and prepared in accordance with the applicable procedure, meeting 10CFR61, Sub Part D, Technical Requirements for Land Disposal Facilities and Final Waste Classification and Waste Form Technical Position Papers requirements.
- 4.2.2 SDRW is examined for liquids or items that could compromise the integrity of the package or violate the burial site license and/or criteria are removed or separated.

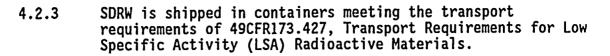


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- 4.2.4 Waste precluded from disposal in LSA boxes or drums, due to radiation limits, is disposed of in the applicable containers.
- 4.2.5 Waste segregation and volume reduction processing techniques are used for waste generated during operation, maintenance, and modifications.
- 4.2.6 Scrap metal is separated from waste, when possible, for onsite or off-site decontamination.

4.2.7 Waste is placed in interim storage in accordance with approved procedures.

4.3 <u>Waste Classification/Characterization</u>

- 4.3.1 The General Supervisor Radwaste shall ensure:
 - a. The minimum waste classification/characteristic requirements identified in 10CFR61.56, Waste Characteristics, are satisfied.
 - b. The radionuclide concentration determination methods and frequency are conducted in accordance with approved procedures.
- 4.3.2 The Manager Chemistry shall ensure the chemical and radionuclide content of waste is determined in accordance with the applicable Chemistry procedures.
- 4.3.3 The Manager Radiation Protection shall ensure classification of waste is performed in accordance with applicable Radiation Protection procedures for the packaging and transportation of radioactive material.

4.4. <u>Administrative Controls</u>

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4.4.1 The General Supervisor Radwaste is responsible for overall administrative control of the Radwaste Process Control Program, ensuring:





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<u>NOTE:</u> Vendor services may be sued for waste segregation and further volume reduction processes.

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4.4.1

- a. Changes to the Unit 1 Radwaste Process Control Program are submitted to the NRC in the Semiannual Radioactive Effluent Release Report for the period in which the change(s) was made, and contain the information required by the applicable Technical Specification.
- b. Shipping manifests are completed and tracked to satisfy the requirements of 10CFR20.2006, Transfer for Disposal and Manifests, in accordance with Waste Handling Procedures.
- c. Temporary storage of solid radioactive material awaiting shipment in an area other than a designated area is done in accordance with the applicable radioactive material storage area.
- d. Interim storage of low level waste is performed in accordance with approved procedures.
- 4.4.2 The Nuclear Division Quality Assurance Program assures effective implementation of the Process Control Program, as follows:
 - <u>NOTE</u>: The Manager, Nuclear QA, Operations has the authority to stop work when significant conditions adverse to quality exist and require corrective action.
 - a. Under the cognizance of the Safety Review and Audit Board (SRAB), the Process Control Program and implementing procedures for processing and packaging of radioactive waste are audited at least once every 24 months as required by the applicable Unit 1 Technical Specification.
 - QA audits waste classification records to ensure compliance with 10CFR20.2006, Transfer for Disposal and Manifests.
 - c. QA Inspectors performing Radwaste inspections receive documents training in Department of Transportation and NRC Radwaste Regulatory requirements.
 - d. Management review results of QA audits.



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4.4.3 The Nuclear Division Training Program assures personnel responsible for implementation of the Process Control Program are effectively trained in accordance with the applicable training procedures as follows:

- Qualification as a Radwaste Operator requires a. satisfactory completion of the Radwaste Operations Unit 1 Initial Training Program and participation in continued training, this includes:
 - Demonstrating an acceptable level of skill and 1. familiarity associated with Radwaste operations by achieving an average grade of 80 percent or above on written examinations.
 - 2. Receiving on-the-job training in accordance with applicable training procedures.
 - 3. Continued training conducted on a cyclical basis and includes a fundamental review of system modifications, revisions or changes to procedures, and changes or experiences in the nuclear industry.
 - 4. Individuals that demonstrate a significant deficiency in a given area of knowledge and/or proficiency (as identified during continued training) are placed in a remedial training program as directed by approved training procedures.
- 4.4.4 Training records and Waste Management records are maintained in accordance with applicable Quality Assurance procedures.

5.0 DEFINITIONS

• 4.5

5.1 The applicable Radwaste packaging, processing, and transportation definitions will be used in accordance with 49CFR171 and 49CFR Sub Part I.



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6.0 <u>REFERENCES</u>

- 6.1 <u>Licensee Documentation</u>
 - 6.1.1 Unit 1 Technical Specifications
 - a. System 3.6.16.c, Radioactive Effluent Treatment Systems
 - b. Section 4.6.16.c, Radioactive Effluent Treatment Systems
 - c. Section 6.5.2.11, Technical Review and Control
 - d. Section 6.5.3.8.k, Audits of Facility Activities
 - e. Section 6.9.1.e, Semiannual Radioactive Effluent Release Report
 - 6.1.2 Unit 1 Radiological Effluent Technical Specifications, Amendment No. 66
 - 6.1.3 Nine Mile Point Unit 1 Operating License No. DPR-63 (Docket No. 50-220)
 - 6.1.4 QATR-1, Quality Assurance Program Topical Report for Nine Mile Point Nuclear Station Operations, Section 17.0, Quality Assurance Records
 - 6.1.5 UFSAR, Section XII.A, Radioactive Wastes
 - 6.1.6 UFSAR, Section III.I, RSSB
 - 6.1.7 Safety Evaluation 92-049, Rev. 04, Interim Storage

6.2 <u>Standards, Regulations, and Codes</u>

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- 6.2.1 10CFR20, Standards for Protection Against Radiation
- 6.2.2 10CFR61, Sub Part D, Technical Requirements for Land Disposal Facilities and Final Waste Classification and Waste Form Technical Position Papers
- 6.2.3 10CFR61.55, Waste Classification
- 6.2.4 10CFR61.56, Waste Characteristics
- 6.2.5 10CFR71, Packaging and Transportation of Radioactive Material, (Refer to applicable S-RPIPs for the packaging and transportation of radioactive material)



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- 6.2.6 49CFR173, Shippers General Requirements for Shipment and Packagings, (Refer to applicable S-RPIPs for the packaging and transportation of radioactive material)
- 6.2.7 49CFR173.427, Transport Requirements for Low Specific Activity (LSA) Radioactive Materials
- 6.2.8 NUREG-0133, Section 3.5, Preparation of Radiological Effluent Technical Specifications for Nuclear Power Plants
- 6.2.9 NUREG-0473, Sections 3.11.3 and 6.14, Draft Radiological Effluent Technical Specifications for Boiling Water Reactors
- 6.2.10 NUREG-0800, Section 11.4, Standard Review Plan for Solid Waste Management Systems
- 6.3 <u>Policies, Programs, and Procedures</u>
 - 6.3.1 NDD-LPP, Licenses, Plans, and Programs
 - 6.3.2 NDD-OPS, Operations
 - 6.3.3 NDD-RMP, Radioactive Material Processing, Transport, and Disposal
 - 6.3.4 NIP-ECA-01, Deviation/Event Report
 - 6.3.5 NIP-PRO-03, Preparation and Review of Technical Procedures
 - 6.3.6 NIP-RMG-01, Records Management
 - 6.3.7 NIP-TQS-01, Qualification and Certification
 - 6.3.8 GAP-ALA-01, Site ALARA Program
 - 6.3.9 GAP-INV-02, Control of Material Storage Areas
 - 6.3.10 GAP-OPS-O1, Administration of Operations
 - 6.3.11 GAP-RPP-01, Radiation Protection Program
 - 6.3.12 GAP-RPP-02, Radiation Work Permit
- 6.4 <u>Supplemental References</u>
 - 6.4.1 Chem Nuclear Systems, Inc. Training and Requalification Procedure
 - 6.4.2 Nuclear Regulatory Commission's Branch Technical Position of Waste Classification and Waste Form, May 1983
 - 6.4.3 DER 1-94-00549

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- 6.4.4 Structural Calculation S.2.3-R5252-Tank 01
- 6.4.5 Modification N1-91-033
- 6.4.6 Procedure N1-MFT-30



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UNIT 1 RADWASTE PROCESS CONTROL PROGRAM IMPLEMENTING PROCEDURES ATTACHMENT 1:

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Waste_Handling_Procedures_(WHPs)

N1-WHP-01	Technical Information Governing Packaging and Shipping of Radioactive Waste
N1-WHP-02	Required Documents for Radioactive Waste Shipments
N1-WHP-03	Cask Handling Procedure
N1-WHP-04	Cask Loading Procedure
N1-WHP-06	Van Handling Procedure
N1-WHP-07	Van Loading Procedure
N1-WHP-08	Sludge Removal and Decontamination Procedure
N1-WHP-09	Cement Solidification Procedure
N1-WHP-10	Removal of a Loaded Cask Liner
N1-WHP-12	Solid Dry Radioactive Waste Collection and Processing
N1-WHP-13	RSSB SECO Crane
S-WHP-1	Waste Transfer for Interim Storage
Liquid Waste Processing Procedures (LWPPs)	
N1-LWPP-01	Liquid Waste Low Conductivity System
N1-LWPP-02	Liquid Waste High Conductivity System
N1-LWPP-03	Liquid Waste Discharge
N1-LWPP-04	Waste Transfers to a Shipping Cask
N1-LWPP-05	#12 Waste Concentrator System
N1-LWPP-06	Filter Sludge Processing System
N1-LWPP-07	Concentrated Waste Transfer System
N1-LWPP-08	Chemical Addition System
N1-LWPP-09	Fluidized Transfer Demineralization System (FTDS)



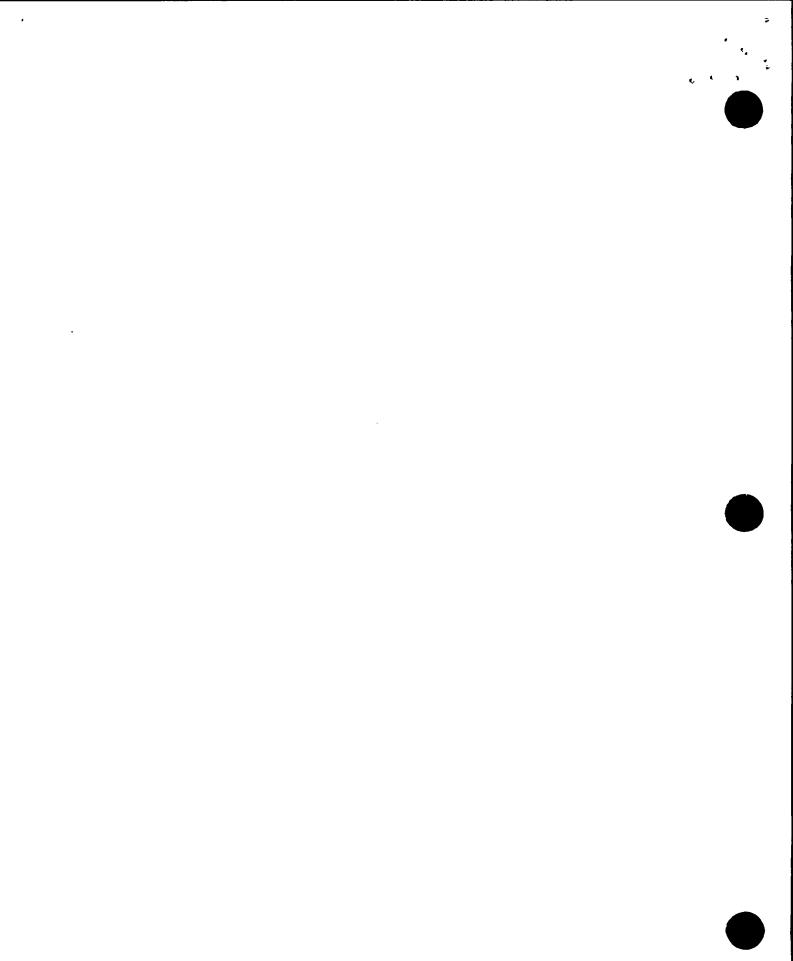
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ATTACHMENT 1: (Cont)

(Sheet 2 of 2)

Liquid Waste Processing Procedures (LWPPs) (Cont'd)

- N1-LWPP-11 Liquid Waste #12 Electric Boiler System
- N1-LWPP-12 Radwaste Building Heating and Ventilation System
- N1-LWPP-13 RSSB Heating, Ventilation & Air Conditioning System
- N1-LWPP-14 Sump and Tank Cleaning Procedure

Radiation Protection Procedures (S-RPIPs)

- S-RPIP-7.1 Movement and Storage of Radioactive Material on Site
- S-RPIP-7.2 **Receipt of Radioactive Material**
- S-RPIP-7.3 Determination of Shipment Type
- S-RPIP-7.4 **Cask Shipments**
- S-RPIP-7.5 Van and Flatbed Shipments
- S-RPIP-7.7 Non-Waste Radioactive Shipments
- S-RPIP-7.8 Shipping Documents

<u>Chemistry Procedures (CSP)</u>

- N1-CTP-V400 Radioactive Solid Waste Analysis and Documentation
- N1-CTP-V402 Radioactive Solid Waste Composites

Quality Assurance Procedures (QAPs)

- QAP-ASU-18.20 Quality Assurance Surveillance Program
- QAP-INS-10.30 Nuclear Quality Assurance Department Inspection Activities

QAP-ASU-18.10 Nuclear Audit Program

Training Procedures (NTPs)

NTP-TQS-108 Training for Chemistry Technicians, Radiation Protection Technicians, and Radwaste Operators





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ATTACHMENT 2: <u>SOLID WASTE SOURCES</u> (Sheet 1 of 3)

1.0 <u>RADWASTE FILTERS</u>

- 1.1 Mechanical Radwaste filters filter resin and crud (backwash material) from the Waste Collector Sub-System.
- 1.2 When a filter reaches a pre-determined differential pressure, the filter is backwashed into the filter sludge tank, which is then processed via the clarifier to the thickener tanks.

2.0 RADWASTE DEMINERALIZER

- 2.1 The Radwaste Demineralizer is used as anionic exchange media for processing high quality water from the Waste Collector Tanks.
- 2.2 When determined the resin can <u>NO</u> longer be used, the depleted resin is pumped to the Spent Resin Tank.

3.0 <u>CONDENSATE DEMINERALIZERS</u>

- 3.1 The Condensate Demineralizers remove soluble and insoluble impurities from the condensate water to maintain reactor feedwater purity.
- 3.2 After it is determined these resins can <u>NO</u> longer be used, the depleted resin are pumped to the Radwaste Demineralizer or Spent Resin Tank.

4.0 THERMEX SYSTEM

- 4.1 Concentrated waste will be pumped to the Spent Resin Tank and dewatered or stored in a liner and eventually pumped to a transport liner in the Radwaste Truck Bay for off-site processing.
- 4.2 Exhausted resin and charcoal are sluiced to the Spent Resin Tank, mixed to a homogenous mixture and then transferred to a liner in the truck bay for dewatering.
- 4.3 Exhausted Reverse Osmosis membranes will be processed as DAW.

5.0 FUEL POOL FILTER SLUDGE TANK

This tank receives the exhausted powdered filter media (resins) from the Fuel Pool Cleanup System, which is subsequently pumped to the Filter Sludge Tank for processing.



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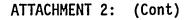
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6.0 CLEANUP FILTER SLUDGE TANK

This tank receives the exhausted powdered filter media (resins) from the Reactor Cleanup System, which is subsequently pumped to the Filter Sludge Tank, Clarifier, or directly to a liner in the Radwaste Truck Bay for processing.

7.0 FILTER SLUDGE STORAGE TANK

This tank receives waste from the Radwaste filters, Fuel Pool and Cleanup Sludge Tanks, Clarifier and Thickener Tank overflows, and Radwaste Floor Drain Sump #11. Tank discharge is to the Clarifier (Filter Sludge Thickener System) or directly to a liner in the Radwaste Truck Bay for processing.

8.0 FILTER SLUDGE THICKENER TANKS (CLARIFIER)

Waste from the Filter Sludge Storage Tank or the Cleanup Filter Sludge Tank is pumped to the Clarifier, mixed with a flocculent and drained in the Thickener Tanks. The Thickener Tanks are pumped to a liner in the Radwaste Truck Bay for processing.

9.0 SPENT RESIN STORAGE TANK

Exhausted resin from the Condensate Demineralizers, Radwaste Demineralizer, and THERMEX System are sluiced to the Spent Resin Tank. The tank is subsequently pumped to a liner in the Radwaste Truck Bay for dewatering and further processing.

10.0 CONTAMINATED OIL

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Oil from sources within Unit 1 that become contaminated is stored in containers to be shipped off-site for incineration.





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NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT NUCLEAR STATION UNIT 1

RPCP

REVISION_04

UNIT 1 RADWASTE PROCESS CONTROL PROGRAM

TECHNICAL SPECIFICATION REQUIRED

Approved by: R. B. Abbott

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Plant Manager - Unit

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20/98

Date

THIS IS A FULL REVISION



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