

NINE MILE POINT NUCLEAR STATION

SEMI-ANNUAL RADIOACTIVE EFFLUENT

RELEASE REPORT

JANUARY - JUNE 1987

DOCKET NO.: 50-220

LICENSE NO.: DPR-63

NIAGARA MOHAWK POWER CORPORATION

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

JANUARY - JUNE 1987

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 from the site to areas at and beyond the site boundary shall be less than or equal to 500 mrems/year to the total body and less than or equal to 3000 mrems/year to the skin.
2. The air dose due to noble gases released in gaseous effluents from the Nine Mile Point 1 Station 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 to the environs as part of the gaseous wastes from the site, shall be less than or equal to 1500 mrems/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 8 days as part of gaseous effluents released from the Nine Mile Point 1 Station to areas at and beyond the site boundary shall be limited during any calendar quarter to less than or equal to 7.5 mrems to any organ and, during any calendar year to less than or equal to 15 mrems 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 gas, the concentration shall be limited to 2E-04 microcuries/ml total activity.



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D. Liquid Effluents (Cont'd)

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 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.

2. Maximum Permissible Concentrations

A) Fission and activation gases:

None specified

B&C) Iodines and particulates, half lives \geq 8 days:

None specified

D) Liquid Effluents:

10CFR 20, Appendix B, Table II, Column 2.
Avg MPC (Jan. - March) = no discharges
Avg MPC (April - June) = no discharges

3. Average Energy (Fission and Activation gases - Mev)

Jan. - March: $\bar{E}_\gamma = 0.936$; $\bar{E}_\beta = 0.409$
April - June: $\bar{E}_\gamma = 0.646$; $\bar{E}_\beta = 0.429$

4. Measurements and Approximations of Total Radioactivity

Described below are the general 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 sample) of an isokinetic stack sample stream.

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

C) Particulates: Activity released from main stack is determined by gamma spectroscopic analysis (at least weekly) of particulate filters manually or automatically sampled from an isokinetic sample stream.



For emergency condenser vent batch releases, effluent curie quantities are estimated by subtracting activity remaining in the shell side of the emergency condenser after batch release from activity delivered to the shell from Make-Up sources. Actual isotopic concentrations are found via gamma spectroscopy. Activities of Sr-89, Sr-90 and Fe-55 are estimated by applying scaling factors or condensate storage activity concentrations. The activity of tritium released during normal operation or during batch releases is conservatively estimated by multiplying recent condensate storage tank H-3 activity by assumed steaming rates out the vents.

- D) Tritium: Tritium effluent activity is estimated by liquid scintillation or gas proportional counting of monthly samples taken with an air sparging/water trap apparatus.
- E) Liquid Effluents: Gamma spectroscopic analysis of a representative sample of each batch and composite analysis of non-gamma emitters.
- F) Solid Effluents: Isotopic contents of waste shipments are determined by gamma spectroscopic, gross alpha and water content analyses 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 may be estimated by dose rate measurement.

5. Batch Releases

The following information relates to batch releases of radioactive materials in liquid and gaseous effluents.

A) Liquid

- 1. Number of batch releases: 0
- 2. Total time period for batch releases: 0 hours 0 min.
- 3. Maximum time period for a batch release: 0 hours 0 min.
- 4. Average time period for a batch release: 0 hours 0 min.
- 5. Minimum time period for a batch release: 0 hours 0 min.
- 6. Average stream flow during period of release of effluent into a flowing stream: Not Applicable
- 7. Total volume of water used to dilute the liquid effluent during release periods : no discharge
- 8. Total volume of water available to dilute the liquid effluent during reporting period : 2.47E+02 GL

B) Gaseous (Emergency Condenser Vents)

- 1. Number of batch releases: 0
- 2. Total time period for batch releases: 0 hours 0 min.
- 3. Maximum time period for a batch release: 0 hours 0 min.
- 4. Average time period for a batch release: 0 hours 0 min.
- 5. Minimum time period for a batch release: 0 hours 0 min.

6. Abnormal Releases

- A. Liquids - none
- B. Gaseous - none



TABLE 1A

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT (1987)
 NINE MILE POINT NUCLEAR STATION #1
 GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES
 ELEVATED AND GROUND LEVEL

JANUARY - JUNE

	<u>UNIT</u>	<u>1st</u> <u>QUARTER</u>	<u>2nd</u> <u>QUARTER</u>	<u>EST. TOTAL</u> <u>ERROR, %</u>	
A. <u>Fission & Activation gases</u>					
1.	Total release	Ci	4.00E+01	3.23E+01	2.50E+01
2.	Average release rate for period	µCi/sec	5.14E+00	4.11E+00	
3.	Percent of Technical Specification Limit	%	*	*	
B. <u>Iodines</u>					
1.	Total iodine-131	Ci	9.83E-04	1.48E-03	5.00E+00
2.	Average release rate for period	µCi/sec	1.26E-04	1.88E-04	
3.	Percent of Technical Specification Limit	%	*	*	
C. <u>Particulates</u>					
1.	Particulates with half- lives >8 days	Ci	1.80E-03	2.00E-03	1.00E+01
2.	Average release rate for period	µCi/sec	2.31E-04	2.55E-04	
3.	Percent of Technical Specification Limit	%	*	*	
4.	Gross alpha radio- activity	Ci	1.29E-06	2.06E-06	2.50E+01
D. <u>Tritium</u>					
1.	Total release	Ci	1.15E+01	1.06E+01	2.00E+01
2.	Average release rate for period	µCi/sec	1.48E+00	1.35E+00	
3.	Percent of Technical Specification, Limit	%	*	*	



TABLE 1A

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT (1987)
 NINE MILE POINT NUCLEAR STATION #1
 GASEOUS EFFLUENTS-SUMMATION OF ALL RELEASES
 ELEVATED AND GROUND LEVEL

JANUARY - JUNE (Cont'd)

	<u>UNIT</u>	<u>1st QUARTER</u>	<u>2nd QUARTER</u>
E.* <u>Percent of Technical Specification Limits (NMP-1 Elevated Release)</u>			
<u>Fission and Activation Gases:</u>			
1.	Percent of Quarterly Gamma Air Dose Limit	%	4.32E-01 2.48E-01
2.	Percent of Quarterly Beta Air Dose Limit	%	9.45E-02 8.18E-02
3.	Percent of Annual Gamma Air Dose Limit to Date	%	2.16E-01 3.40E-01
4.	Percent of Annual Beta Air Dose Limit to Date	%	4.72E-02 8.80E-02
5.	Percent of Whole Body Dose Rate Limit	%	1.75E-02 9.95E-03
6.	Percent of Skin Dose Rate Limit	%	4.20E-03 2.75E-03
<u>Tritium, Iodines and Particulates (with half-lives greater than 8 days):</u>			
1.	Percent of Quarterly Dose Limit	%	2.50E-01 2.89E-01
2.	Percent of Annual Dose Limit to Date	%	1.26E-01 2.71E-01
3.	Percent of Organ Dose Rate Limit	%	4.19E-03 6.26E-03



TABLE 1B

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT (1987)
 NINE MILE POINT NUCLEAR STATION #1
 GASEOUS EFFLUENTS-ELEVATED RELEASE

JANUARY - JUNE

Nuclides Released	Unit	CONTINUOUS MODE	
		1st Quarter	2nd Quarter
1. <u>Fission Gases</u>			
Argon-41	Ci	9.34E+00	-----
Krypton-85m	Ci	7.20E-01	7.40E-01
Krypton-87	Ci	-----	-----
Krypton-88	Ci	5.64E+00	-----
Xenon-133	Ci	3.87E-01	-----
Xenon-135	Ci	1.35E+01	1.65E+01
Xenon-135m	Ci	1.88E+00	1.50E+00
Xenon-137	Ci	-----	-----
Xenon-138	Ci	8.52E+00	1.36E+01
2. <u>Iodines</u>			
Iodine-131	Ci	9.83E-04	1.48E-03
Iodine-133	Ci	6.97E-03	1.18E-02
Iodine-135	Ci	2.24E-02	2.43E-02
3. <u>Particulates</u>			
Strontium-89	Ci	1.70E-04	1.31E-04
Strontium-90	Ci	1.40E-05	1.57E-06
Cesium-134	Ci	-----	-----
Cesium-137	Ci	1.98E-04	1.50E-04
Cobalt-60	Ci	5.19E-04	6.37E-04
Cobalt-58	Ci	1.08E-05	7.38E-05
Manganese-54	Ci	-----	4.20E-05
Barium-Lanthanum-140	Ci	3.98E-04	3.66E-04
Antimony-125	Ci	-----	-----
Niobium-95	Ci	-----	-----
Cerium-141	Ci	-----	-----
Cerium-144	Ci	-----	-----
Iron-59	Ci	-----	-----
Cesium-136	Ci	-----	-----
Chromium-51	Ci	4.50E-04	6.98E-05
Zinc-65	Ci	-----	-----
Iron-55	Ci	4.70E-05	3.82E-05
4. <u>Tritium</u>			
	Ci	2.43E+00	2.23E+00



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TABLE 1C

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT (1987)
 NINE MILE POINT NUCLEAR STATION #1
 GASEOUS EFFLUENTS-GROUND LEVEL (EMERGENCY CONDENSER VENT) RELEASES

JANUARY - JUNE

Nuclides Released	Unit	CONTINUOUS MODE		BATCH MODE	
		<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>1st Quarter</u>	<u>2nd Quarter</u>
1. <u>Fission Gases</u>					
Argon-41	Ci	-----	-----	-----	-----
Krypton-85m	Ci	-----	-----	-----	-----
Krypton-87	Ci	-----	-----	-----	-----
Krypton-88	Ci	-----	-----	-----	-----
Xenon-133	Ci	-----	-----	-----	-----
Xenon-135	Ci	-----	-----	-----	-----
Xenon-135m	Ci	-----	-----	-----	-----
Xenon-137	Ci	-----	-----	-----	-----
Xenon-138	Ci	-----	-----	-----	-----
2. <u>Iodines</u>					
Iodine-131	Ci	-----	-----	-----	-----
Iodine-133	Ci	-----	-----	-----	-----
Iodine-135	Ci	-----	-----	-----	-----
3. <u>Particulates</u>					
Strontium-89	Ci	-----	-----	-----	-----
Strontium-90	Ci	-----	-----	-----	-----
Cesium-134	Ci	-----	-----	-----	-----
Cesium-137	Ci	-----	-----	-----	-----
Cobalt-60	Ci	-----	-----	-----	-----
Cobalt-58	Ci	-----	-----	-----	-----
Manganese-54	Ci	-----	-----	-----	-----
Barium-Lanthanum-140	Ci	-----	-----	-----	-----
Antimony-125	Ci	-----	-----	-----	-----
Niobium-95	Ci	-----	-----	-----	-----
Cerium-141	Ci	-----	-----	-----	-----
Cerium-144	Ci	-----	-----	-----	-----
Iron-59	Ci	-----	-----	-----	-----
Cesium-136	Ci	-----	-----	-----	-----
Chromium-51	Ci	-----	-----	-----	-----
Zinc-65	Ci	-----	-----	-----	-----
4. <u>Tritium</u>	Ci	9.03E+00	8.33E+00	-----	-----

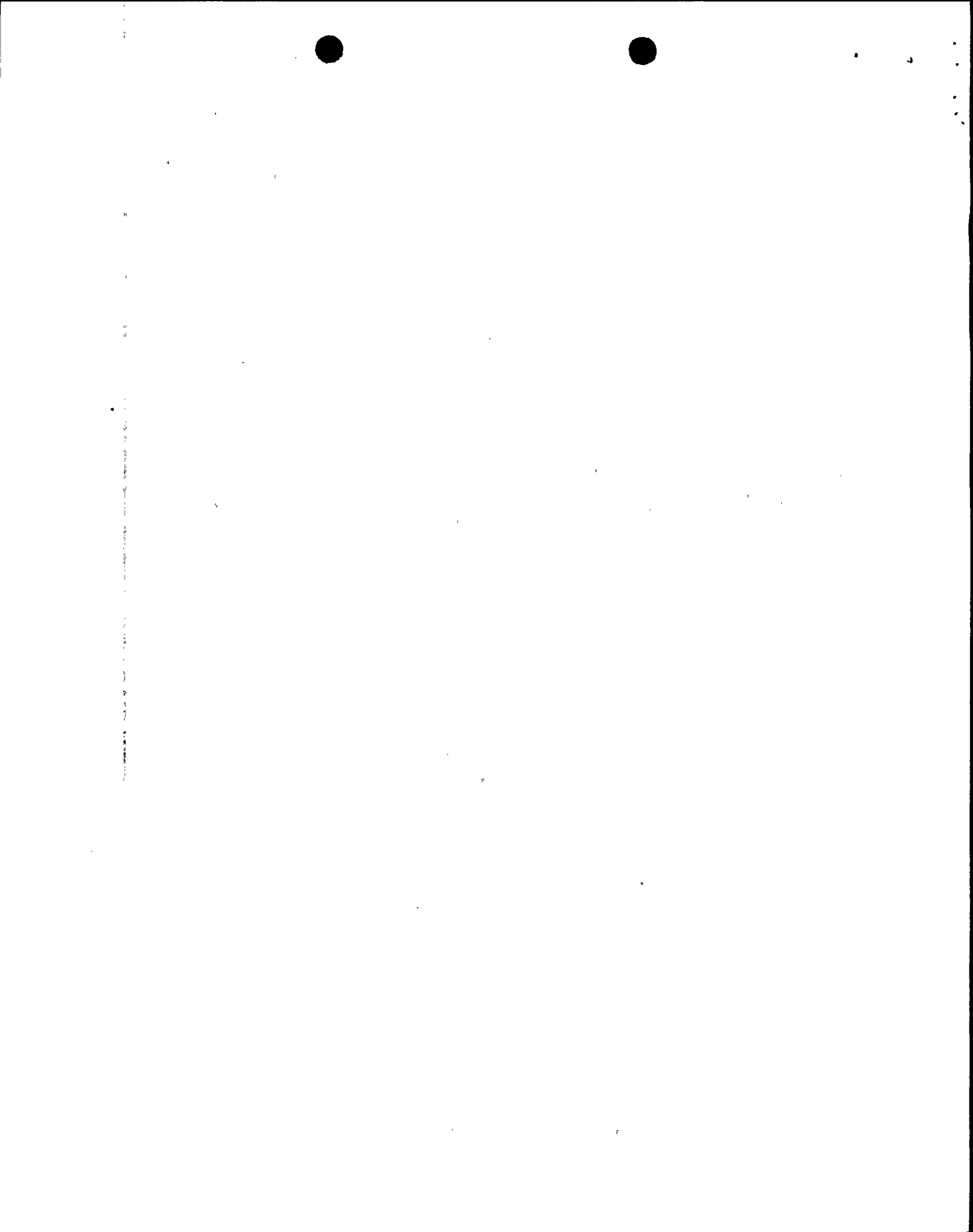


TABLE 2A

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT (1987)
 NINE MILE POINT NUCLEAR STATION #1
 LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

JANUARY - JUNE

	<u>Unit</u>	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>Est. Total Error, %</u>
A. <u>Fission and activation products</u>				
1. Total release (not including tritium, gases, alpha)	Ci	None	None	-----
2. Average diluted concentration during reporting period	µCi/ml	-----	-----	
3. Percent of applicable limit	%	-----	*	
B. <u>Tritium</u>				
1. Total release	Ci	None	None	-----
2. Average diluted concentration during reporting period	µCi/ml	-----	-----	
3. Percent of applicable limit	%	-----	*	
C. <u>Dissolved and entrained gases</u>				
1. Total release	Ci	None	None	-----
2. Average diluted concentration during reporting period	µCi/ml	-----	-----	
3. Percent of applicable limit	%	-----	*	
D. <u>Gross alpha radioactivity</u>				
1. Total release	Ci	None	None	-----

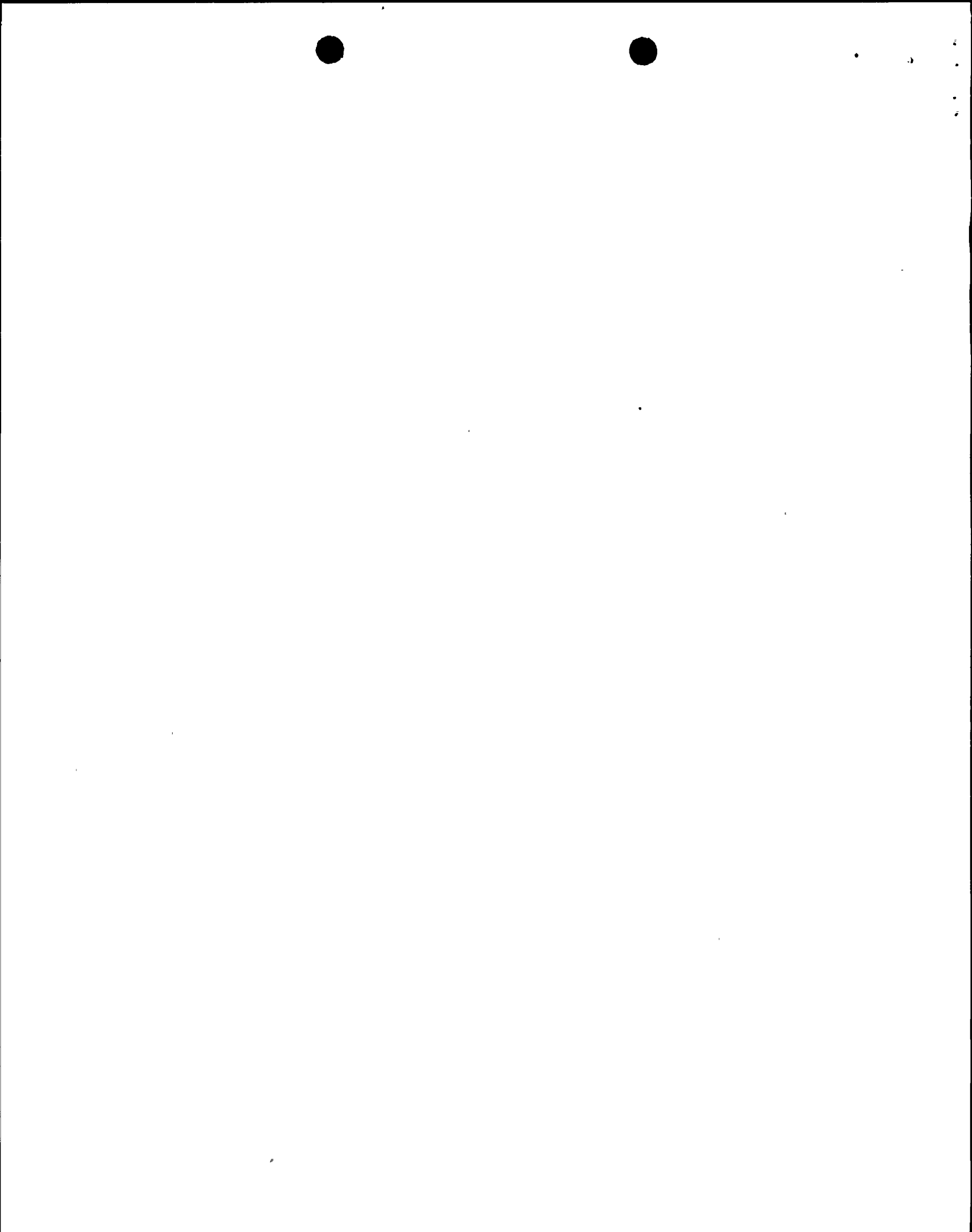


TABLE 2A

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT (1987)
 NINE MILE POINT NUCLEAR STATION #1
 LIQUID EFFLUENTS-SUMMATION OF ALL RELEASES

JANUARY - JUNE (Cont.)

		<u>Unit</u>	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>Est. Total Error, %</u>
E. <u>Volumes</u>					
1.	Prior to dilution	liters	None	None	
2.	Volume of dilution water used during release period	liters	None	None	
3.	Volume of dilution water used during reporting period.	giga- liters*	1.17E+02	1.30E+02	2.00E+01
F. <u>Percent of Technical Specification Limits</u>					
1.	Percent of Quarterly Whole Body Dose Limit	%			
2.	Percent of Quarterly Organ Dose Limit	%			
3.	Percent of Annual Whole Body Dose Limit to Date	%		No Discharges	No Discharges
4.	Percent of Annual Organ Dose Limit	%			
5.	Percent of 10CFR20 Concentration Limit	%			
6.	Percent of Dissolved or Entrained Noble Gas Limit	%			

*Units were incorrectly reported on July-December 1986 Semi-Annual Effluent Report as liters instead of ggaliters.



TABLE 2B

RADIOACTIVE EFFLUENT RELEASE SEMI-ANNUAL REPORT (1987)
 NINE MILE POINT NUCLEAR STATION #1
 LIQUID EFFLUENTS

JANUARY - JUNE

Nuclides Released	Unit	BATCH MODE	
		<u>1st Quarter</u>	<u>2nd Quarter</u>
Strontium-89	Ci		
Strontium-90	Ci		
Cesium-134	Ci		
Cesium-137	Ci		
Iodine-131	Ci		
Cobalt-58	Ci		
Cobalt-60	Ci		
Manganese-54	Ci		
Chromium-51	Ci		
Zirconium-niobium-95	Ci	No Discharges	No Discharges
Barium-lanthanum-140	Ci		
Tungsten-187	Ci		
Arsenic-76	Ci		
Iodine-133	Ci		
Iron-59	Ci		
Iron-55	Ci		
Neptunium-239	Ci		
Praseodymium-144	Ci		
Iodine-135	Ci		
Σ Dissolved or entrained gases	Ci		



TABLE 3A

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT (1987)
 NINE MILE POINT NUCLEAR STATION #1
 SOLID WASTE AND IRRADIATED FUEL SHIPMENTS

A. Solid Waste Shipped Off-Site for Burial or Disposal (Not irradiated fuel)

1. <u>Class of Waste</u>	<u>January - June</u>	<u>Est. Total Error, %</u>
a. <u>Class A</u>		
Spent Resins		
m ³	1.99E+01	
Curies	1.35E+02	2.50E+01
Solidification Agent	None	
Container	HIC	
Package	Type A	
Principle Isotopes	Cobalt-60, Chromium-51, Iron-55, Cesium-137, Cobalt-58, Nickel-63, Manganese-54, Zinc-65	
Dry Compressible Waste		
m ³	6.63E+01	
Curies	2.60E-01	4.00E+01
Solidification Agent	None	
Container	Strong Tight Package	
Package	Wood LSA Box	
Principle Isotopes	Cesium-137, Cobalt-60, Iron-55, Nickel-63, Cesium-134	
b. <u>Class B</u>		
Filter Media		
m ³	3.54E+02	
Curies	4.48E+01	2.50E+01
Solidification Agent	Cement	
Container	Steel Liner	
Package	Type A	
Principle Isotopes	Cobalt-60, Chromium-51, Iron-55, Cesium-137, Cobalt-58, Nickel-63, Manganese-54, Zinc-65	
c. <u>Class C</u>		
None		



TABLE 3A

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT (1987)
 NINE MILE POINT NUCLEAR STATION #1
 SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
 (Continued)

2. Estimate of Major Nuclide Composition (by Type of Waste)

a. Evaporator Bottoms - Resins - Filter Media

<u>Nuclide</u>	<u>Percent</u>
Cobalt-60	3.70E+01
Chromium-51	3.59E+01
Iron-55	6.86E+00
Cesium-137	6.31E+00
Cobalt-58	5.34E+00
Nickel-63	3.74E+00
Manganese-54	2.59E+00
Zinc-65	1.44E+00
Carbon-14	3.98E-01
Cesium-134	1.92E-01
Other	2.30E-01

b. Dry Compressible Waste, Contaminated Components

<u>Nuclide</u>	<u>Percent</u>
Cesium-137	4.83E+01
Cobalt-60	2.99E+01
Iron-55	1.66E+01
Nickel-63	2.27E+00
Cesium-134	2.03E+00
Tritium	4.82E-01
Manganese-54	2.08E-01
Other	2.10E-01

3. Solid Waste Disposition

a. <u>Number of Shipments</u>	<u>Mode</u>	<u>Destination</u>
8	Truck	Barnwell, SC



TABLE 3A

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT (1987)
NINE MILE POINT NUCLEAR STATION #1
SOLID WASTE AND IRRADIATED FUEL SHIPMENTS
(Continued)

4. a. Irradiated Reactor Components Disposition

<u>Number of Shipments</u>	<u>Mode</u>	<u>Destination</u>
None	-	-

b. Irradiated Fuel Shipments Disposition

<u>Number of Shipments</u>	<u>Mode</u>	<u>Destination</u>
None	-	-



TABLE 4

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT (1987)
NINE MILE POINT NUCLEAR STATION # 1
HOURS AT EACH WIND SPEED AND DIRECTION

JANUARY - JUNE

In accordance with Amendment 66 of Nine Mile Point Unit 1 Technical Specifications, an annual summary of hourly meteorological data shall be included and submitted in the Semi-Annual Radioactive Effluent Release Report within 60 days after January 1 of each year. Therefore, meteorological data has not been included in this report. Data will appear in the subsequent Semi-Annual Report.



TABLE 5

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT (1987)
NINE MILE POINT NUCLEAR STATION #1
SUMMARY OF CHANGES TO THE OFF-SITE DOSE CALCULATION MANUAL

JANUARY - JUNE

The latest changes (Revision 4) to the Unit 1 ODCM were completed in February, 1987. However, these changes were summarized in the Semi-Annual Report for July-December 1986. Therefore, no revisions will be included in this report.



TABLE 6

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT (1987)
NINE MILE POINT NUCLEAR STATION #1
CHANGES TO THE PROCESS CONTROL PROGRAM

JANUARY - JUNE

Nine Mile Point Nuclear Station Site Administrative Procedure AP-3.7, which describes the Nine Mile Point Unit 1 Process Control Program (PCP) was revised during the current reporting period. In accordance with Section 6.9.1.e of Amendment 66 to the Nine Mile Point 1 Technical Specifications, this Table: (a) describes the rationale for changes in the PCP and (b) explains why these changes will not adversely affect the overall conformance of the solidified waste product to existing criteria for solid wastes.

Attached to this table is (a) a copy of Revision 2 to AP-3.7 (which shows recent changes made to Revision 1), (b) a copy of Revision 1 so that changes can be easily identified and (c) review and approval documentation associated with the revision. Review and acceptance was performed by authorized station personnel in accordance with Technical Specification 6.5.2 and applicable administrative procedures.



TABLE 6

SEMI-ANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT (1987)
 NINE MILE POINT NUCLEAR STATION #1
 CHANGES TO THE PROCESS CONTROL PROGRAM

JANUARY - JUNE
 (Continued)

CHG. NO.	AP-3.7 Rev. 1 SECTION CHANGED	RATIONALE FOR CHANGE	AFFECT ON CONFORMANCE OF WASTE PRODUCT TO EXISTING CRITERIA
1	Attachment 1 "Procedures Which Implement the PCP"	The Quality Assurance Procedures (QAPs) listed in Rev. 1 were no longer current. Revision 2 reflects an updated list of the current relevant QAPs which implement the PCP.	Conformance of Waste product to existing criteria is unaffected or improved since the changes were organiza- tional in nature, and did not affect solid- fication or packaging processes or compliance with 10CFR71 and other Federal and State regu- lations governing transport and disposal of waste.



TECHNICAL REVIEW AND CONTROL

SUMMARY

DOCUMENT No. AP 3.7 Rev. No. 2 *Prd Rev, NC

TITLE Process Control Program

Author Tony Zelenka Date 4/13/87

Description of Changes (Itemize the nature/reason of general changes)

Revise References to QAPs to be consistent with current practice. (per attachment)

* IF PERIODIC REVIEW WITH NO CHANGES (Prd Rev, NC), USE THE LAST PUBLISHED REVISION NUMBER AND CONTINUE REVIEW PROCESS.

INTRADISCIPLINARY REVIEW (minimum of one person required)

DEPT. NAME	TITLE	SIGNATURE	DATE
<u>QA</u>	<u>QA Program Manager</u>	<u>[Signature]</u>	<u>4/14/87</u>

CROSS DISCIPLINARY REVIEW (if not required, use lines for justification statement)

DEPT. NAME	TITLE	SIGNATURE	DATE
	<u>Change noted only affects QA references.</u>		

IF NOT IN CONCURRENCE, DO NOT SIGN BUT RETURN DOCUMENT TO THE AUTHOR WITH COMMENTS

Routed to Quality Assurance for review: Yes No . If No, reason _____

Q. A. Representative C. E. D'Arcy Date 4/13/87 & comments are attached,

Routed to A.L.A.R.A. for review: Yes No If No, reason rev affects QA ref. only

A.L.A.R.A. Representative _____ Date _____ & comments are attached,

Route to AUTHOR / UNIT SUPV.

SAFETY ANALYSIS REQUIRED: NO , YES (SEE ATTACHED)
IF YES, ANALYSIS ASSIGNED TO: SITE , OR TO ENGINEERING , DATE _____

REVIEW OF THE SUBJECT DOCUMENT HAS BEEN COMPLETED AND APPROVAL IS RECOMMENDED. (Approvers shall signify approval on the procedure cover sheet) . .

DOCUMENT HELD FOR SORC (MEETING # 87-54). APPROVED, YES , NO .

OWNERSHIP DEPT SUPV. J. REUS DEPT 7005 DATE 5/11/87



TECHNICAL REVIEW AND CONTROL

EVALUATION OF NEED FOR SAFETY ANALYSIS IN ACCORDANCE WITH 10 CFR 50.59

(Documents that require General Supt. approval
per Tech Spec. 6.8)

FOR DOCUMENT NO. AP-3.7 REV. 2 DATE 5-87

The Author (A) and four SORC Members (Minimum - 2 regular members, 2 alternates) are to respond to each of the questions below.

		NO	YES*
Does the document/revision result in a change to the facility or procedures described in the FSAR ?	A	<input type="checkbox"/>	<input type="checkbox"/>
	1	<input type="checkbox"/>	<input type="checkbox"/>
	2	<input type="checkbox"/>	<input type="checkbox"/>
	3	<input type="checkbox"/>	<input type="checkbox"/>
	4	<input type="checkbox"/>	<input type="checkbox"/>
Does the document/revision deviate from compliance to Tech Specs. or is the margin of safety defined in the basis reduced ?	A	<input type="checkbox"/>	<input type="checkbox"/>
	1	<input type="checkbox"/>	<input type="checkbox"/>
	2	<input type="checkbox"/>	<input type="checkbox"/>
	3	<input type="checkbox"/>	<input type="checkbox"/>
	4	<input type="checkbox"/>	<input type="checkbox"/>
Does the document/revision increase the probability of occurrence, or the consequences of an accident, or malfunction of equipment important to safety (Class 1) evaluated in the FSAR increased ?	A	<input type="checkbox"/>	<input type="checkbox"/>
	1	<input type="checkbox"/>	<input type="checkbox"/>
	2	<input type="checkbox"/>	<input type="checkbox"/>
	3	<input type="checkbox"/>	<input type="checkbox"/>
	4	<input type="checkbox"/>	<input type="checkbox"/>
Does the document/revision create the possibility for an accident or malfunction of a different type than any evaluated in the FSAR ?	A	<input type="checkbox"/>	<input type="checkbox"/>
	1	<input type="checkbox"/>	<input type="checkbox"/>
	2	<input type="checkbox"/>	<input type="checkbox"/>
	3	<input type="checkbox"/>	<input type="checkbox"/>
	4	<input type="checkbox"/>	<input type="checkbox"/>

* A "MAYBE" constitutes a "YES" response.

SORC MEMBERS RECOMMENDATIONS TO GENERAL SUPERINTENDENT

Recommended Nuclear Engineering or Tech Services perform a safety ANALYSIS to present to SORC (noted by a "YES" response to any of the above questions)	1	2	3	4
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recommended full SORC committee review this Evaluation of need for Safety Analysis.	1	2	3	4
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Recommended approval - This document does not involve an unreviewed safety question.	1	2	3	4
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SORC Member Name	SORC Member Signatures	Date
1 _____	_____	5/5/87
2 <u>Joe</u>	<u>SORC</u>	
3 _____	_____	
4 _____	_____	

SORC meeting number (if Required)

87-54



TECHNICAL REVIEW AND CONTROL REFERENCE DOCUMENTS

The items entered below have been included in the preparation and/or review of the attached reference document and are presented in place of a specific check sheet for the document.

The following persons were consulted about this procedure

NAME	TITLE	BY
Bill Conolly	QA Program Mgr.	T. Zeleuka
_____	_____	_____
_____	_____	_____

Procedure is in compliance with the following Technical Specifications

SECTION	AMENDMENT	BY
_____	_____	_____
_____	_____	_____
_____	_____	_____

Compliance with: CFR / US-NRC REGULATORY GUIDES(s) DATED BY

REGULATORY GUIDES(s)	DATED	BY
_____	_____	_____
_____	_____	_____
_____	_____	_____

Compliance with ANSI STANDARD(s) DATED BY

ANSI STANDARD(s)	DATED	BY
_____	_____	_____
_____	_____	_____
_____	_____	_____

Compliance with: ASME Boiler and Pressure Vessel Code(s)

SECTION	DATE	ADDENDUM	BY
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

is consistent with the following Station or Site procedures:

NUMBER	REV.	BY
_____	_____	_____
_____	_____	_____
_____	_____	_____

OTHER INFORMATION SOURCES CONSULTED

SOURCES CONSULTED	BY
_____	_____
_____	_____
_____	_____

AUTHOR T. Zeleuka DATE 5-18-87
 REVIEWED BY [Signature] DATE 5/16/87

COMMENTS Revision affects QAPs as referenced to be consistent with current practice.



TECHNICAL REVIEW AND CONTROL REVIEW CHECK LIST

TO BE PREPARED BY AUTHOR

CHECK LIST FOR DOCUMENT NO. AP-3.7 REV. 2 DATE. 5-87

"✓" ONLY BOXES THAT APPLY

	YES	NA
All references needed to implement the procedure are clearly identified and available.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The procedure contains adequate equipment lists, precautions and limitations, prerequisites, graphs, diagrams or data sheets as required.....	<input type="checkbox"/>	<input type="checkbox"/>
Surveillance and Maintenance Procedure utilizes PLANT IMPACT statement associated with approval/permission for use.....	<input type="checkbox"/>	<input type="checkbox"/>
As appropriate, procedure addresses use of MARK - UPs.....	<input type="checkbox"/>	<input type="checkbox"/>
If appropriate, procedure requires use of fire protection measures, ie, burning permits etc.....	<input type="checkbox"/>	<input type="checkbox"/>
If leads are lifted, jumpers placed or blocks used in the procedure, the PLANT IMPACT statement acknowledges such use.....	<input type="checkbox"/>	<input type="checkbox"/>
As appropriate, procedure notifies other affected departments such as Q.C., Operations, I&C, Maintenance, Rad Protection etc.....	<input type="checkbox"/>	<input type="checkbox"/>
If Technical Specification is exceeded, appropriate action is identified.....	<input type="checkbox"/>	<input type="checkbox"/>
The procedure references valve numbers, motor control numbers, power supplies. Instrumentation identification is clear and correct.....	<input type="checkbox"/>	<input type="checkbox"/>
When encountered, E.Q. related equipment is identified as such.....	<input type="checkbox"/>	<input type="checkbox"/>
Procedure steps are clear and accurate. They are not unnecessarily difficult to implement....	<input type="checkbox"/>	<input type="checkbox"/>
The procedure reflects the latest system or component configuration.....	<input type="checkbox"/>	<input type="checkbox"/>
The procedure reflects work as it is to be done at the station.....	<input type="checkbox"/>	<input type="checkbox"/>
Procedure removes any jumpers or blocks and restores lifted leads used to effect the work.....	<input type="checkbox"/>	<input type="checkbox"/>
"RETURN TO SERVICE" uses double verification and identifies specifics being verified.....	<input type="checkbox"/>	<input type="checkbox"/>
For maintenance procedures, "RETURN TO SERVICE" either performs a POST MAINTENANCE TEST or references a required test.....	<input type="checkbox"/>	<input type="checkbox"/>
MARK - UPs are cleared or surrendered.....	<input type="checkbox"/>	<input type="checkbox"/>
"ACCEPTANCE CRITERIA" identifies accomplishment of specific goals.....	<input type="checkbox"/>	<input type="checkbox"/>

FORM PREPARED BY A. J. Zelinka DATE 5-13-87

FIGURE 2.0.4 SHEET 4 OF 4



NINE MILE POINT NUCLEAR STATIONMINUTES OF THE MEETINGSITE OPERATIONS REVIEW COMMITTEE

May 5, 1987

ATTENDANCEMembers

T.J. Perkins	-	General Superintendent Nuclear Generation (absent)
T.W. Roman	-	Station Superintendent NMP#1 (absent)
R.B. Abbott	-	Station Superintendent NMP#2 -Acting Chairman
W.C. Drews	-	Technical Superintendent
K.A. Dahlberg	-	Site Superintendent Maintenance
C.L. Stuart	-	Superintendent Radiation/Chemistry Management (absent)
L.J. Lagoe	-	Supervisor Instrument & Control (absent)
J.R. Spadafore	-	Superintendent Technical Services (absent)
R.G. Randall	-	Supervisor Technical Support
R.G. Smith	-	Supervisor Reactor Analyst (absent)
J.T. Conway	-	Unit Supervisor Reactor Analyst (absent)

Alternates

M.D. Jones	-	Superintendent Operations NMP2 for RB Abbott
P. Volza	-	Supervisor Radition Protection for C.L. Stuart

Advisors

R. Zollitsch	-	Training
D. Pasquale	-	Modification Engineer
R. Swanson	-	Modification Engineer
K. Korcz	-	Licensing
M. Ritzner	-	Modification Engineer
N. Rademacher	-	QA Operations
W. Hansen	-	QA Manager
P. Louis	-	SWEC
A. Hwu	-	Test Engineer

LOCATION:

The meeting was held in the Nine Mile Point Unit #1 Conference Room beginning at 1:00 p.m.

SUMMARY:

The meeting was held in order to review those items listed in the Summary.



1
2
3
4

SUMMARY:

Procedures Reviewed by SORC

Procedures with Revisions

N2-OP-1	Main Steam System (Rev. 3)
AP-3.7	Process Control Program (Rev. 2)

Technical Specification Changes

The committee reviewed a proposed Technical Specification change for Unit #2 concerning Fire Protection Program Reportability Requirements.

Tests & Experiments

None

Modifications

The committee reviewed the following Final Safety Evaluations for Unit #2:

87-050	Addition of DX Coils to 2HVW-ACU2A/2B
87-056	Suppression Pool High Temp-Alarm (Water)
N2Y87MX047	Feedwater Control Valve Refurbishment (Rev 1 & 2)

Technical Specification Violations

None

Review of Operations

None

Special Reviews Request of SRAB

None

Emergency Plan Reviews

None

Security Plan Reviews

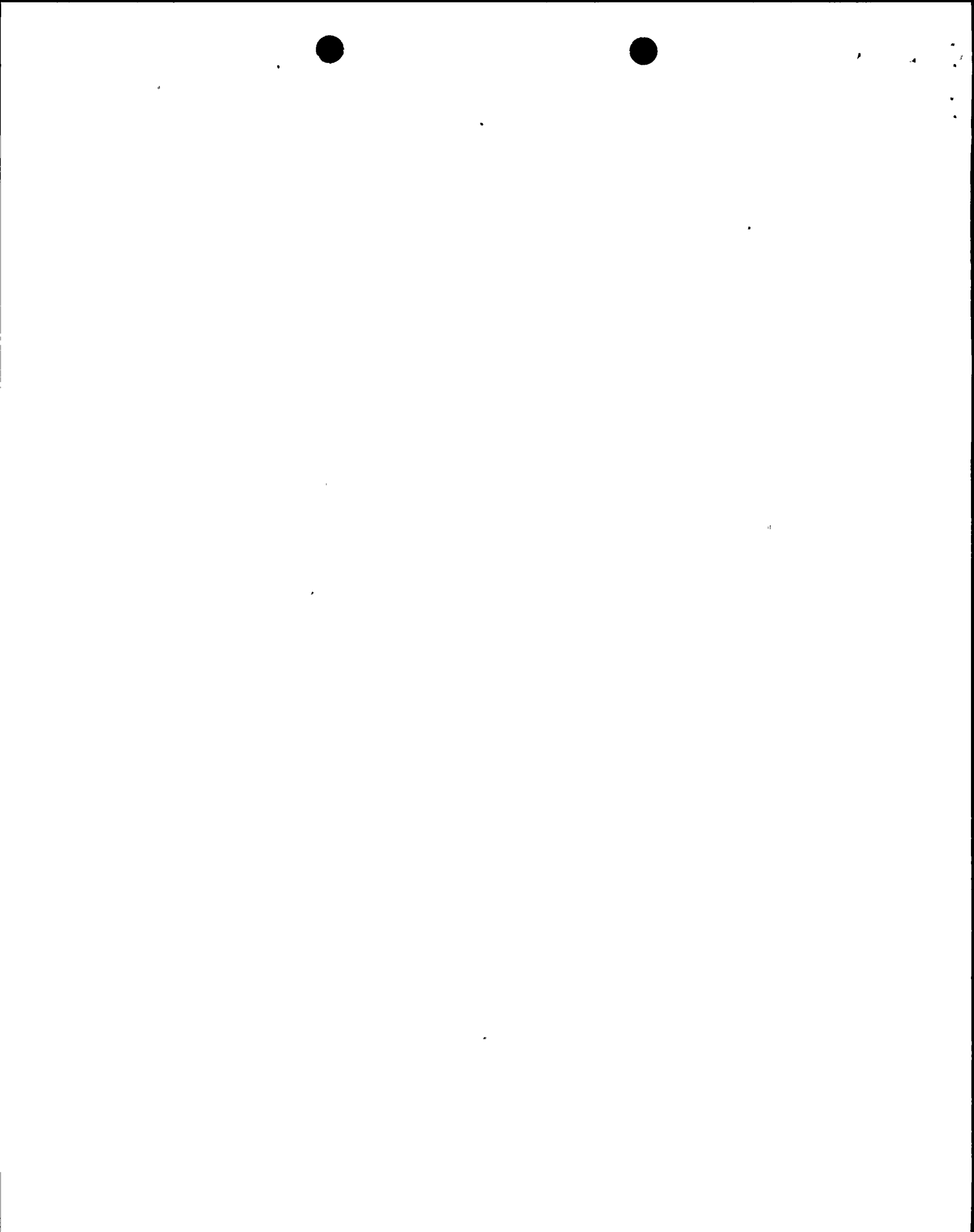
None

Technical Specification Amendments

None

SORC Open Items

None



MEETING MINUTES:

Mr. A. Hwu presented to the committee Revision to Operating Procedure, OP-1, for Unit #2, (See Summary for Title):

N2-OP-1 Revisions were made to this procedure to add a section to provide direction to backfill the MSLs between the MSIVs with water in order to reduce MSIV leakage after an accident. The committee was concerned with the need of a safety evaluation for this change, however, it was noted that this change will "only" be performed at the direction of the N2-EOP-MSL, Emergency Operating Procedure for the Main Steam Lines. The committee recommended approval of the change pending the approval of the EOP which will require a safety evaluation.

Mr. N. Rademacher presented to the committee Revision to Administrative Procedure, AP-3.7, (See Summary for Title):

AP-3.7 Revisions were made to this procedure to update the Quality Assurance Procedures on Attachment 1. The committee reviewed the change and recommended approval as submitted.

Mr. K. Korcz presented to the committee proposed Technical Specification change for Unit #2 concerning the Fire Protection Program Reportability Requirements. The change states that only those violations which are against systems needed to maintain a safe shutdown in the event of a fire shall be reported. It was noted that this change will be placed in the full power license. The committee recommended approval of the proposed change as submitted.

Mr. R. Swanson presented to the committee Revision to Final Safety Evaluation for Unit #2, N2Y87MX047, (See Summary for Title):

N2Y87MX047 Revisions were made to this safety evaluation to correct the setpoint for the travel stop following turbine trip from 50% to 80%. Revisions were also made to FSAR Figure No. 10.4.1 to reflect that correction. The committee recommended approval as submitted.

Mr. M. Ritzner presented to the committee Final Safety Evaluation for Unit #2, 87-056, (See Summary for Title):

87-056 The purpose of this modification is to split the current temperature inputs to two annunciators. A change to Technical Specification 3/4.6.2 is currently being submitted to the NRC that will require annunciation at less than or equal to 90°F and less than or equal to 110°F from the suppression pool temperature monitoring. This modification impacts the control room panel configuration by adding a second annunciator window for suppression pool high temperature. The committee reviewed the safety evaluation and recommended approval as submitted.




MEETING MINUTES (Cont'd)

Mr. D. Pasquale presented to the committee Final Safety Evaluation for Unit #2, 87-050, (See Summary for Title):

87-050 This was presented to the committee at a previous meeting. The committee recommended at that time that this safety evaluation be reviewed by D. Sullivan. Reference 3 addresses those comments. The purpose of the modification is to provide a permanent fix and make the radwaste control room air conditioning subsystem independent of other systems. New direct expansion refrigeration coils are being installed in the existing A/C units. The committee reviewed the safety evaluation and recommended approval as submitted.

The committee stated the following: All items were found to be in conformance with Technical Specifications and not to change conditions of any existing safety analyses; none of the items reviewed constituted an unreviewed safety question; all items were reviewed for radiological impact and none were designated for a detailed ALARA review.

The meeting was adjourned at 2:30 p.m.



R.B. Abbott - Acting Chairman

