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 Document Control Branch (Document Control Desk)

Revised
9/25/99

SUBJECT: Forwards rev 3 to EPIP-EPP-06, "Implant Emergency Surveys" &
 rev 4 to EPIP-EPP-07, "Downwind Radiological Monitoring." *JD*

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NIAGARA MOHAWK

GENERATION
BUSINESS GROUP

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CARL D. TERRY
Vice President
Nuclear Safety Assessment and Support

November 24, 1997

United States Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

file code: 97-EP-101

RE: Nine Mile Point Unit 1
Docket No. 50-220
DPR-63

Nine Mile Point Unit 2
Docket No. 50-410
NPF-69

Gentlemen:

Enclosed please find copies of the following Emergency Procedures for Niagara Mohawk Power Corporation's Nine Mile Point Nuclear Station:

- EPIP-EPP-06, Revision 03, "Inplant Emergency Surveys"
- EPIP-EPP-07, Revision 04, "Downwind Radiological Monitoring"

These procedures are being submitted as required by Section V to Appendix E of 10 CFR Part 50. Should you have any questions, please feel free to contact Mr. James D. Jones, Director of Emergency Preparedness at (315) 349-4486.

Very truly yours,

Carl D. Terry, Vice President
Nuclear Safety Assessment and Support

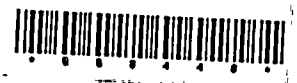
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Enclosure

pc:
Mr. H.J. Miller, Regional Administrator, Region I (2 copies)
Mr. B.S. Norris, Senior Resident Inspector
Mr. D.S. Hood, Senior Project Manager, NRR
Records Management

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NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT NUCLEAR STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURE

EPIP-EPP-06

REVISION 02

INPLANT EMERGENCY SURVEYS

TECHNICAL SPECIFICATION REQUIRED

Approved by:
N. L. Rademacher

N. L. Rademacher
Plant Manager - Unit 1

9/5/95
Date

Approved by:
K. A. Dahlberg

John T. Goring
Plant Manager - Unit 2

9/1/95
Date

CONTROLLED

THIS IS A FULL REVISION

Effective Date: 11/15/95

PERIODIC REVIEW DUE DATE NOVEMBER 1996

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U.S. AIR FORCE
HEADQUARTERS
WASHINGTON, D.C.

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1.0 PURPOSE

To define the responsibilities and actions of personnel directing and performing radiological surveys and samples within the station during an emergency.

2.0 PRIMARY RESPONSIBILITIES

2.1 The Radiation Protection Team Coordinator (RPTC):

2.1.1 Assembles and provides technical and administrative direction to Inplant Survey Teams based on direction from the RAM or designee.

2.1.2 Ensures continuous accountability for personnel actively assigned RP responsibilities on site.

2.2 Inplant Survey Teams perform radiological surveys and samples within the station during an emergency.

3.0 PROCEDURE

3.1 Assembling and Dispatch Inplant Survey Teams

3.1.1 Upon staffing the appropriate Emergency Response Facility the RPTC shall receive briefing and instructions from the RAM or designee.

3.1.2 The Radiation Protection (RP) Team Coordinator shall assemble in-plant survey teams.

a. The number of teams depends upon direction from the RAM

b. Teams should consist of a minimum of one qualified RP Technician

c. Each team shall be assigned a unique team number.

NOTE: For Unit 1 only, the stack teletector team is considered an inplant survey team and should be assigned a number.

3.1.3 Before dispatch, the RPTC should ensure each Survey Team is briefed on:

a. The following **CAUTIONS:**

- If general area dose rates of >8000 mrem/hr open window are encountered, survey teams shall retreat to an area of less exposure and contact the RPTC for guidance.

3.1.3 (Cont)

- If unshielded, uncorrected contact dose rate readings of any sample or object is > 2000 mrem/hr open window, DO NOT handle directly. Request guidance from the RPTC.
 - All provisions for personnel emergency exposure outlined in EPIP-EPP-15 shall be complied with.
- b. Location(s) for monitoring or sampling
 - c. Required monitoring data
 - d. Anticipated radiation and contamination levels
 - e. Required dosimetry and protective equipment
 - f. Dose guidance and limits
 - g. Primary and alternate ingress and egress routes
 - h. Maximum stay times
 - i. An ALARA goal

3.1.4 The RPTC should ensure that each Inplant Survey Team is equipped with the following as appropriate:

- a. Copies of pertinent procedures
- b. RWP (standing or specific)
- c. Appropriate dosimetry, protective equipment, radiation monitoring, and communications equipment as follows:

NOTE: If applicable, the use of regularly available equipment and supplies is acceptable.

ITEM	STORAGE LOCATION
Protective Equipment and Supplies	All equipment stored in Unit 1 Storeroom
Instruments and Air Samplers	All equipment stored in Unit 1 Storeroom
Special Personal Dosimetry (if required)	All equipment stored in Unit 1 Storeroom
Portable Radio	All equipment stored in Unit 1 Storeroom

3.1.5 The RPTC shall notify the OSC Coordinator and the RAM when survey teams are ready for dispatch.

3.2 Performing Inplant Surveys

3.2.1 Upon dispatch, each survey team shall establish communications with the TSC and the OSC using the following:

- Unit 1 Primary = RP/Maintenance/I&C radio channel (Channel 3)
- Unit 2 Primary = RP radio channel (Channel 4)
- Backup by telephone = RPTC (x1272) or RAM (x1353)
- Backup = GAItronics

3.2.2 Survey teams shall perform surveys in accordance with Radiation Protection procedures.

3.2.3 Record all data on Radiation Survey Log Sheet.

3.2.4 Survey Teams shall report all data to the TSC. *Immediately* report any of the following conditions:

- a. Any radiological condition significantly different than expected
- b. Any significant differences between open and closed window readings

3.2.5 If airborne activity is suspected OR if instructed to do so perform an airborne radioactivity survey in accordance with Radiation Protection procedure, with the following exceptions.

- a. Obtain a minimum 15 cubic feet air sample (unless otherwise directed).
- b. Record pertinent information on the Radiation Survey Log.
- c. Perform field analysis of the air sample media if possible. If field analysis is NOT possible, then:
 1. Return sample media to the Chemistry Lab or appropriate Counting Room facility.
 2. Wrap the samples in another layer of polyethylene wrap or plastic bag to prevent cross-contamination.
 3. If sample media contact readings are >1000 mrem/hr uncorrected, deliver the samples to the High Level Laboratory hood.

3.2.6 Survey Teams shall return all Radiation Survey Log Sheets to the RP Team Coordinator for forwarding to the RAM.

3.3 Maintaining Survey Sample Data

3.3.1 Upon receipt of data from inplant survey teams, the RPTC and Survey Team members should complete Radiation Survey Log Sheet.

3.3.2 The RPTC shall ensure the Survey Team Worksheet (Attachment 1), or equivalent is completed when directed to do so by the RAM.

4.0 DEFINITIONS

None

5.0 REFERENCES AND COMMITMENTS

5.1 Licensee Documentation

None

5.2 Standards, Regulations and Codes

NUREG-0654 FEMA-REP-1: Criteria for preparation and evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

5.3 Policies, Programs and Procedures

- EPIP-EPP-02, Emergency Equipment Inventories and Checklists
- EPIP-EPP-15, Emergency Health Physics Procedure
- S-RPIP-3.2, Radiation Surveys
- S-RPIP-3.3, Contamination Surveys
- S-RPIP-3.4, Airborne Radioactivity Surveys

6.0 RECORD REVIEW AND DISPOSITION

The following records generated by this procedure as a result of an actual emergency declared at the Nine Mile Point Nuclear Station shall be maintained by Nuclear Records Management for the Permanent Plant File in accordance with NIP-RMG-01, "Identification, Maintenance, Storage, and Transfer of Nuclear Division Records":

- Attachment 1, "Survey Team Worksheet"
- Logs
- Radiation Survey Log Sheets

The following records generated by this procedure during Emergency drills or exercises are not required for retention in the Permanent Plant File:

- Attachment 1, "Survey Team Worksheet"
- Logs
- Radiation Survey Logs

SURVEY TEAM WORKSHEET

FROM: Survey Team ID _____

1. Survey Date/Time _____/_____

2. Location # _____

3. General Area Radiation Data:

	<u>Contact</u>	<u>1m or G/A</u>	
a. Open Window	_____	_____	mrem/hr - cpm (circle one)
b. Closed Window	_____	_____	mrem/hr - cpm (circle one)
c. B Correction Factor	_____	_____	

4. Air Sample Data:

a. Sample ID	_____	
b. Duration	_____	Hr-Min (circle one)
c. Flow Rate	_____	cfm
d. Background	_____	cpm
e. Particulate	_____	cpm
f. Iodine	_____	cpm

5. Survey Team Exposure Report:

a. Name	_____	_____
b. Time	_____	_____
c. Exposure (mrem)	_____	_____
d. Cum. Exposure (mrem)	_____	_____

Calculations:

1) $MDC = 4.66 \sqrt{\frac{Bkqd (cpm)}{.333}}$

<u>Bkqd (cpm)</u>	<u>MDC</u>	<u>Bkqd (cpm)</u>	<u>MDC</u>
60	63	200	114
80	72	300	140
90	77	400	162
100	81	500	181

2) Particulate Activity: $(1.6 \times 10^{-10}) \times \frac{(\text{net cpm}^*)}{(\text{ft}^3)} = \text{_____ } \mu\text{Ci/cc}$

3) Iodine Activity: $(3.4 \times 10^{-9}) \times \frac{(\text{net cpm}^*)}{(\text{ft}^3)} = \text{_____ } \mu\text{Ci/cc}$

4) Noble Gas Activity: $(1\text{m or G/A mR/Hr}) \times (1.4 \times 10^{-6}) = \text{_____ } \mu\text{Ci/cc}$

5) Iodine/Noble Gas Ratio: $\frac{\text{Iodine Activity}}{\text{Noble Gas Activity}} = \text{_____}$

6) Dose Rate Equivalent Thyroid (Child): $(\text{Iodine Activity}) \times (2.6 \times 10^6) = \text{_____ } \text{rem/hr}$

7) Ground Deposition:
 $(\text{Contact} - 1\text{m or G/A cpm}) \times (1.3 \times 10^{-9}) = \text{_____ } \text{Ci/m}^2$
 OR
 $(\text{Contact} - 1\text{m or G/A mrem/hr}) \times (9.8 \times 10^{-7})$

* IF NET CPM IS LESS THAN MDC, CALCULATE ACTIVITY USING MDC AND REPORT AS LESS THAN THAT CALCULATED VALUE.

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT NUCLEAR STATION
EMERGENCY PLAN IMPLEMENTING PROCEDURE

EPIP-EPP-07

REVISION 03

DOWNWIND RADIOLOGICAL MONITORING

TECHNICAL SPECIFICATION REQUIRED

Approved by:
N. L. Rademacher



Plant Manager - Unit 1

11/22/96
Date

Approved by:
J. T. Conway



Plant Manager - Unit 2

11/20/96
Date

Effective Date: 12/20/96

PERIODIC REVIEW DUE DATE DECEMBER 1997



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1.0 PURPOSE

To define the responsibilities and actions of personnel directing and performing radiological surveys and sampling outside the station during an emergency.

2.0 PRIMARY RESPONSIBILITIES

2.1 The Environmental Sample/Survey Coordinator (ESSTC):

2.1.1 Assembles and provides technical and administrative direction from the EOF to Downwind Survey teams.

2.1.2 Ensure continuous accountability for personnel actively assigned RP responsibilities.

2.2 The Radiation Protection Team Coordinator (RPTC):

2.2.1 Assemble and provide technical and administrative direction from the OSC to the Downwind Survey Teams prior to EOF activation.

2.2.2 Ensure continuous accountability for personnel actively assigned RP responsibilities.

2.3 Downwind Survey Teams perform sampling and radiological surveys outside the station during an emergency.

2.4 The Offsite Dose Assessment Manager (ODAM) provides overall coordination of the offsite dose assessment effort, including direction to the ESSTC.

3.0 PROCEDURE

3.1 Assembly and Dispatch of Downwind Survey Teams

3.1.1 Upon notification of an emergency, radiation protection staff should report to their designated emergency facility, as directed by the notification method. The normal reporting location is the OSC. Alternate locations may include the EOF.

3.1.2 The RPTC shall receive a briefing and instruction from the ESSTC or the RAM, depending on which facility becomes operational first.

3.1.3 The RPTC should assign teams as described below. Each Survey Team shall consist of a minimum of two individuals, at least one of whom is qualified and trained in emergency response and the use of this procedure.

- a. TEAM A: locate plume maximum dose rates based on wind direction

3.1.3 (Cont)

- b. TEAM B: assess radiological conditions onsite and outside the protected area including: Security buildings, P and O Buildings, Engineering Support Building, Warehouse, Nuclear Learning Center, Energy Center, and parking lots.
- c. TEAM C: assess radiological conditions onsite and inside the protected area.

3.1.4 Before dispatch, the RPTC should ensure each Downwind Survey Team is briefed on:

- a. The following CAUTIONS:
 - *If general area dose rates of >8000 mrem/hr (open window) are encountered, survey teams shall retreat to an area of less exposure and contact the RPTC or ESSTC for guidance.*
 - *If unshielded, uncorrected contact dose rate reading of any sample or object is > 2000 mrem/hr (open window), DO NOT handle directly. Utilize tongs or other long handled tools. Request guidance from the RPTC.*
 - *All provisions for personnel emergency exposure outlined in EPIP-EPP-15 shall be complied with.*
- b. Location(s) for monitoring or sampling
- c. Required monitoring data
- d. Anticipated radiation and contamination levels
- e. Required dosimetry and protective equipment
- f. Dose guidance and limits
- g. Preselected and alternate routes
- h. Where to report results (EOF, TSC or OSC)
- i. Wind direction and speed
- j. Current emergency classification and release status (if any)
- k. Implemented protective actions

3.1.5 Each Downwind Survey Team should be equipped with:

- a. Copies of pertinent procedures and data sheets
- b. Drivers license and NMPC ID card OR Oswego County Emergency ID card
- c. Appropriate dosimetry, protective equipment, radiation monitoring, and communications equipment as follows.

ITEM	STORAGE LOCATION
Protective Equipment and Supplies	Equipment and supplies are located in the Unit 1 storeroom OR EOF
Instruments and Air Samplers (AC and DC)	Equipment and supplies are located in the Unit 1 storeroom OR EOF
Personnel Dosimetry	Equipment and supplies are located in the Unit 1 storeroom OR EOF
Portable Radio	Equipment and supplies are located in the Unit 1 storeroom OR EOF

The survey team shall verify operability of equipment and instruments.

- d. Any vehicle (NMPC or personal). Keys for NMPC vehicles are available in the key box in the OSC. NMPC vehicles are listed below in order of suggested use:
 - Vehicle # 5-52* (Emergency Preparedness)
 - Vehicle # 5-139* (Environmental Protection)
 - Vehicle # 5-243 * (Environmental Protection)
 - Vehicle # 2-1077 (Emergency Preparedness)
 - Vehicle # 2-481 (Buildings and Grounds)
 - Vehicle # 2-377 (Unit 1 Maintenance)
 - Vehicle # 3-26 (Unit 2 Maintenance)

*Equipped with AC power inverter

3.1.6 The RPTC shall notify the ESSTC, when available, when survey teams are ready for dispatch. At this point, control of the downwind survey teams should be turned over to the ESSTC.

3.2 Performing Downwind Surveys

3.2.1 Upon dispatch, each survey downwind survey team should establish communications with the EOF using one of the following (additional telephone numbers are located in Attachment 4):

- Primary: Rad Team radio channel
- Backup: Admin radio channel
- Backup: Telephone: ESSTC (349-2960) or RPTC (349-1272)

3.2.2 Downwind Survey Teams should conduct surveys as outlined below. Record initial exposure and all data on Survey Data Sheets (Attachment 1) or equivalent form.

- a. Conduct continuous dose or count rate measurements while mobile.
- b. Obtain air sample measurements, if directed to do so by the RPTC or ESSTC. When performing this function, follow appropriate sections of S-RPIP-3.4.
- c. Obtain dose or count rate measurements at each survey location as follows:
 1. Obtain ground level contact readings. Scan along a line about twenty feet long at right angles to the wind direction. Report and record only the highest reading.
 2. Obtain one meter (waist level) readings along the same line that the contact readings were taken. Report and record only the highest reading.
- d. Perform the following, if directed to do so:
 - Open and closed window readings
 - Collection of samples and data from downwind environmental monitoring stations
 - Collection of emergency or environmental TLDs

3.2.3 Downwind Survey Teams should return all Survey Data Sheets to the ESSTC.

3.2.4 Each team is responsible for maintaining accurate survey data on Attachment 1.

3.3 Maintaining Survey Sample Data

3.3.1 Upon receipt of data from downwind survey teams, the ESSTC shall ensure the completion of the Survey Data Sheet (Attachment 1), or equivalent form.

3.3.2 The ESSTC should ensure Survey Team Worksheets (Attachment 2), or equivalent form are completed and forward to the ODAM.

4.0 DEFINITIONS

None

5.0 REFERENCES AND COMMITMENTS

5.1 Licensee Documentation

None

5.2 Standards, Regulations and Codes

NUREG-0654 FEMA-REP-1: Criteria for Preparation and Evaluation of Radiological Emergency response Plans and Preparedness In Support of Nuclear Power Plants

5.3 Policies, Programs and Procedures

- EPMP-EPP-02, Emergency Equipment Inventories and Checklists
- EPIP-EPP-15, Emergency Health Physics Procedure
- S-RPIP-3.2, Radiation Surveys
- S-RPIP-3.3, Contamination Surveys
- S-RPIP-3.4, Airborne Radioactivity Surveys

5.4 Commitments

None

6.0 RECORD REVIEW AND DISPOSITION

The following records generated by this procedure as a result of an actual emergency declared at Nine Mile Point Nuclear Station shall be maintained by Nuclear Records Management for the Permanent Plant File in accordance with NIP-RMG-01:

- Attachment 1, Downwind/Re-entry Survey Data Sheet
- Attachment 2, Survey Team Worksheets
- Logs
- Radiation Survey Log Sheets

The following records generated by this procedure during emergency drills or exercises are not required for retention in the Permanent Plant File:

- Attachment 1, Downwind/Re-entry Survey Data Sheet
- Attachment 2, Survey Team Worksheets
- Logs
- Radiation Survey Log Sheets

**ATTACHMENT 1
DOWNWIND/RE-ENTRY SURVEY DATA SHEET**

<input type="checkbox"/> Downwind Survey <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C, <input type="checkbox"/> Re-entry Survey	Survey Meter Model # _____ SR # _____ Count Rate Meter Model # _____ SR # _____ Air Sampler Model # _____ SR # _____ High Range Survey Meter Model # _____ SR # _____
---	---

Directions for Survey Teams: report readings in shaded blocks from left to right		General Area Radiation Data					Air Sample Data								Survey Team Exposure Data			
Survey Date/Time	Survey Location	O.W. Reading (mrem/hr or cpm)		C.W. Reading (mrem/hr)		Beta Corr. Factor	Sample ID #	Start Time	Stop Time	Duration (min)	Flow Rate (Cfm)	Bkgd (Cpm)	Sample Count Rate (cpm)		Surveyor's Initials	Team Members Initials	Exposure Received (mrem)	Cumulative Exposure (mrem)
		Contact	1m	Contact	1m								Part	Iodine				

Plume Tracking Survey Data							Moving Survey Data		
Time	Near Edge		Centerline		Far Edge		Time	Location (Street Names, Building, Etc.)	Radiation Levels (mrem/hr o.w. or cpm)
	Odometer Reading	Radiation Levels mrem/hr o.w. or cpm	Odometer Reading	Radiation Levels mrem/hr o.w. or cpm	Odometer Reading	Radiation Levels mrem/hr o.w. or cpm			

SURVEY TEAM WORKSHEET

FROM: Survey Team ID _____ Reviewed by: _____

1. Survey Date/Time _____ / _____

2. Location # _____

3. General Area Radiation Data:

	<u>Contact</u>	<u>1m or G/A</u>	
a. Open Window	_____	_____	mrem/hr - cpm (circle one)
b. Closed Window	_____	_____	mrem/hr - cpm (circle one)
c. B Correction Factor	_____	_____	

4. Air Sample Data:

a. Sample ID	_____	
b. Duration	_____	Hr-Min (circle one)
c. Flow Rate	_____	cfm
d. Background	_____	cpm
e. Particulate	_____	cpm
f. Iodine	_____	cpm

5. Survey Team Exposure Report:

a. Name	_____	_____
b. Time	_____	_____
c. Exposure (mrem)	_____	_____
d. Cum. Exposure (mrem)	_____	_____

Calculations:

1) MDC = 4.66	$\sqrt{\frac{\text{Bkgd (cpm)}}{.333}}$	<u>Bkgd (cpm)</u>	<u>MDC</u>	<u>Bkgd (cpm)</u>	<u>MDC</u>
		60	63	200	114
		80	72	300	140
		90	77	400	162
		100	81	500	181

2) Particulate Activity: $(1.6 \times 10^{-10}) \times (\text{net cpm}^*) =$ _____ $\mu\text{Ci/cc}$
(ft³)

3) Iodine Activity: $(3.4 \times 10^{-9}) \times (\text{net cpm}^*) =$ _____ $\mu\text{Ci/cc}$
(ft³)

4) Noble Gas Activity: (1m or G/A mR/Hr) x $(1.4 \times 10^{-6}) =$ _____ $\mu\text{Ci/cc}$

5) Iodine/Noble Gas Ratio: $\frac{\text{Iodine Activity}}{\text{Noble Gas Activity}} =$ _____

6) Dose Rate Equivalent Thyroid (Child): (Iodine Activity) x $(2.6 \times 10^6) =$ _____ rem/hr

7) Ground Deposition:
 (Contact - 1m or G/A cpm) x $(1.3 \times 10^{-9}) =$ _____ Ci/m²
 OR
 (Contact - 1m or G/A mrem/hr) x (9.8×10^{-7})

* IF NET CPM IS LESS THAN MDC, CALCULATE ACTIVITY USING MDC AND REPORT AS LESS THAN THAT CALCULATED VALUE.

**ATTACHMENT 3
TABLE OF ON-SITE AND OFF-SITE SURVEY/SAMPLE LOCATIONS**

Sector	Sample ID #	Location Description	Miles from Site ⁽¹⁾	Azimuth	ERPA(s) <small>(2)(3)</small>
C	C-1 (Off-site)	1.3 Miles North on Montario Point Road by Environmental Station R-5	16.2	40°	
D	D-1 (On-site)	30' South of NMP-II	0.4	72°	1
D	D-2 (On-site)	Dirt access road along the lake on NYPA Site by Environmental Station H	1.0	73°	1
D	D-3 (Off-site)	In hamlet of Selkirk on County Route 5	11.3	71°	14
D	D-4 (Off-site)	0.65 miles north of the entrance to Selkirk Shores State Park on NY Route 3	11.3	77°	14
D	D-5 (Off-site)	Corner Rainbow Shores Road and NY Route 3	13.5	65°	⁽³⁾
E	E-1 (On-site)	In front of NMP Unit 2 combined construction offices	0.3	89°	1
	E-2 (On-site)	Along dirt access road by Environmental Station H on NYPA Site	0.9	93°	1
E	E-3 (Off-site)	Corner of Lake Road and Nine Mile Point Road	1.9	97°	1,2
E	E-4 (Off-site)	Shore Oaks-at the end of Shore Oaks Drive	2.7	94°	2,4
E	E-5 (Off-site)	Hickory Grove-at the end of Hickory Grove Drive	4.6	96°	4
E	E-6 (Off-site)	Intersection of NY Route 104B, County Route 1, and County Route 43	6.6	101°	7
E	E-7 (Off-site)	Texas-intersection of NY 104B and County Route 16	7.8	95°	15
E	E-8 (Off-site)	Corner of Hager Drive and NY Route 3	10.2	86°	14
F	F-1 (On-site)	Along Lake Road about 0.3 miles of NYPA access road	1.2	107°	1
F	F-2 (On-site)	Intersection of County Route 29 and Lake Road	1.1	105°	1
F	F-3 (Off-site)	Nine Mile Point Road halfway between Lake Road and Miner Road intersection.	2.1	114°	2
F	F-4 (Off-site)	Intersection of Pleasant Point Drive (County Route 44) and County Route 1	3.9	110°	4
F	F-5 (Off-site)	Intersection of NY Route 104 and County Route 6	5.5	121°	4,7,8,9
F	F-6 (Off-site)	Intersection of NY Route 104 and County Route 43 at Toll Gate	7.4	116°	7,8
F	F-7 (Off-site)	Intersection of County Route 64 and NY Route 104 in the Village of Mexico	9.3	117°	16
G	G-1 (On-site)	Nuclear Learning Center	0.2	129°	1
G	G-2 (On-site)	Along NMP Unit 2 material access road approximately 50' from Lake Road intersection	0.5	142°	1
G	G-3 (On-site)	250' south of NYPA Access Road on Lake Road in ball field	0.7	131°	1
G	G-4 (Off-site)	Intersection of Miner Road and County Route 29	1.9	142°	1,2
G	G-5 (Off-site)	Intersection of Nine Mile Point Road and County Route 1	2.8	134°	2,4,5
G	G-6 (Off-site)	Intersection of NY Route 104 and NY 104B	4.8	126°	4,9
G	G-7 (Off-site)	Intersection of Lilly Marsh Road and Darrow Road	6.1	135°	9
G	G-8 (Off-site)	Cummings Bridge, intersection of County Routes 6, 51 and 64	7.3	136°	8,9
G	G-9 (Off-site)	Hamlet of Vermillion on County Route 35	9.6	137°	8,18

⁽¹⁾ Center of the site is taken as the NMPC Unit II Reactor Building.

⁽²⁾ Environmental Station/Control Point, does NOT appear on "Off-Site Survey Location Map # 4".

⁽³⁾ Not in an ERPA, outside EPZ

ATTACHMENT 3
TABLE OF ON-SITE AND OFF-SITE SURVEY/SAMPLE LOCATIONS

Sheet 2 of 2

Sector	Sample ID #	Location Description	Miles from Site ⁽¹⁾	Azimuth	ERPA(s)
H	H-1 (On-site)	South side of Lake Road about 0.15 miles west of NMP Unit 2 materials access road	0.5	155°	1
H	H-2 (On-site)	Nine Mile pole #3, 1/2 way between the two transmission lines on Miner Road	1.6	157°	1,2,3
H	H-3 (Off-site)	North Scriba, intersection of County Routes 1 and 29	2.5	152°	2,5
H	H-4 (Off-site)	Hammonds Corners, intersection of NY Route 104 and County Route 29	3.5	159°	5,10
H	H-5 (Off-site)	South New Haven, intersection of County Routes 51 and 51A	5.2	149°	9
H	H-6 (Off-site)	0.1 mile east of O'Connor Road County Route 4 by Environmental Station E	7.1	159°	18
J	H-7 (Off-site)	Intersection of County Route 6 and McDougall Road	9.2	156°	18
J	J-1 (On-site)	Along the Private Road, south of NMP II Cooling Tower	0.4	174°	1
J	J-2 (On-site)	NMP Pole #1 intersection of Miner Road and NMP Transmission Road	1.5	177°	1,3
J	J-3 (Off-site)	Intersection of North Road, and NMP transmission lines east of Lakeview Road	2.2	178°	3,5
J	J-4 (Off-site)	Intersection of NY Route 104 and County Route 51A	3.8	176°	5,10
J	J-5 (Off-site)	Intersection of O'Connor Road and Hay Fly Road	5.5	176°	10
J	J-6 (Off-site)	Intersection of Route 176 and Black Creek Road	7.9	177°	20
K	J-7 (Off-site)	Intersection of State Highway 176 and Howard Road	11.1	176°	⁽³⁾
K	K-1 (On-site)	Intersection of the Private Road and Energy Center Road	0.8	211°	1
K	K-2 (On-site)	Intersection of Miner Road and Lakeview Road	1.6	189°	1,3
K	K-3 (Off-site)	Intersection of County Route 1 (North Road) and Creamery Road	2.6	205°	3,5,6
K	K-4 (Off-site)	Scriba, intersection of NY Route 104, Creamery Road and Klocks Corners Road	3.9	194°	5,6,10,11
K	K-5 (Off-site)	Lansing, intersection of County Routes 4 and 53	5.7	201°	11,19
K	K-6 (Off-site)	At intersection of County Route 53 and Dutch Ridge Road	7.6	193°	19
L	K-7 (Off-site)	Minetto, intersection of County Routes 48 & 25	9.0	201°	21
L	L-1 (On-site)	Energy Center access road, approx. 0.1 mile from the Private Road	0.5	224°	1
L	L-2 (On-site)	Intersection of Lakeview, Private Road & County Route 1A	1.4	219°	1,3
L	L-3 (Off-site)	Walker, intersection of County Routes 1 and 1A	3.1	221°	3,6
L	L-4 (Off-site)	100' N. of Seneca Street on St. Paul's Cemetery Road by Environmental Station G	5.2	226°	12
L	L-5 (Off-site)	Oswego, intersection of NY Route 104 and NY 481	6.6	229°	12
L	L-6 (Off-site)	SUNY Oswego, intersection of Route 104 and College Access Road	8.1	232°	22
M	L-7 (Off-site)	Oswego Center, intersection of County Routes 7 & 20	9.6	220°	22
M	M-1 (On-site)	Energy Center Access Road approx., 60' from building	0.5	246°	1
M	M-2 (On-site)	Meteorological Tower	0.8	250°	1
N	N-1 (On-site)	Energy Center	0.4	265°	1

⁽³⁾ Not in an ERPA, outside EPZ

ATTACHMENT 4
EMERGENCY TELEPHONE NUMBERS

TSC

Radiological Assessment Manager 349-1353
343-6408

OSC

Radiological Protection Team Coordinator 349-1272

EOF

Environmental Survey/Sample Team Coordinator 593-5991
593-5996