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**NEW YORK POWER AUTHORITY  
JAMES A. FITZPATRICK NUCLEAR POWER PLANT  
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TO: U.S.N.R.C. Document Center/Washington, DC

FROM: CATHY IZYK - EMERGENCY PLANNING DEPARTMENT

SUBJECT: EMERGENCY PLAN AND IMPLEMENTING PROCEDURES

Enclosed are revisions to your assigned copy of the JAFNPP Emergency Plan and Implementing Procedures. Please remove and **DISCARD** the old pages. Insert the attached, initial and date this routing sheet and return the completed routing sheet to **Cathy Izyk in the Emergency Planning Department within 15 days**. If this transmittal is not returned within 15 days, your name will be removed from the controlled list.

**PLEASE INSERT THE DOCUMENTS LISTED BELOW!**

VOLUME 1 Update List Dated N/A			
DOCUMENT	PAGES	REV. #	INITIALS/DATE
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VOLUME 2 Update List Dated July 21, 2000			
DOCUMENT	PAGES	REV. #	INITIALS/DATE
EAP-5.3	REPLACE ALL – Place sticker provided on map page. 30	7	

VOLUME 3 Update List Dated July 21, 2000			
DOCUMENT	PAGES	REV. #	INITIALS/DATE
EAP-28	REPLACE ALL	6	
EAP-32	REPLACE ALL	3	
SAP-10	REPLACE ALL	9	
SAP-17	REPLACE ALL	7	

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# EMERGENCY PLAN IMPLEMENTING PROCEDURES/VOLUME 2

## UPDATE LIST

CONTROLLED COPY # **39**

Date of Issue: July 21, 2000

Procedure Number	Procedure Title	Revision Number	Date of Last Review	Use of Procedure
N/A	TABLE OF CONTENTS	REV. 19	02/98	N/A
IAP-1	EMERGENCY PLAN IMPLEMENTATION CHECKLIST	REV. 22	02/98	Continuous
IAP-2	CLASSIFICATION OF EMERGENCY CONDITIONS	REV. 20	12/98	Continuous
EAP-1.1	OFFSITE NOTIFICATIONS	REV. 42	04/99	Informational
EAP-2	PERSONNEL INJURY	REV. 23	07/00	Informational
EAP-3	FIRE	REV. 20	02/98	Informational
EAP-4	DOSE ASSESSMENT CALCULATIONS	REV. 29	12/98	Reference
EAP-4.1	RELEASE RATE DETERMINATION	REV. 10	12/98	Reference
EAP-5.1	DELETED (02/94)			
EAP-5.2	DELETED (04/91)			
EAP-5.3	ONSITE/OFFSITE DOWNWIND SURVEYS AND ENVIRONMENTAL MONITORING	REV. 7	07/00	Informational
EAP-6	IN-PLANT EMERGENCY SURVEY/ENTRY	REV. 15	02/98	Informational
EAP-7.1	DELETED (02/94)			
EAP-7.2	DELETED (02/94)			
EAP-8	PERSONNEL ACCOUNTABILITY	REV. 47	04/00	Reference
EAP-9	SEARCH AND RESCUE OPERATIONS	REV. 9	02/98	Informational
EAP-10	PROTECTED AREA EVACUATION	REV. 14	02/98	Informational
EAP-11	SITE EVACUATION	REV. 15	02/98	Informational
EAP-12	DOSE ESTIMATED FROM AN ACCIDENTAL RELEASE OF RADIOACTIVE MATERIAL TO LAKE ONTARIO	REV. 10	08/99	Reference
EAP-13	DAMAGE CONTROL	REV. 13	12/98	Informational
EAP-14.1	TECHNICAL SUPPORT CENTER ACTIVATION	REV. 20	12/98	Informational
EAP-14.2	EMERGENCY OPERATIONS FACILITY ACTIVATION	REV. 19	07/00	Informational
EAP-14.5	OPERATIONAL SUPPORT CENTER ACTIVATION AND OPERATION	REV. 14	03/00	Informational

# EMERGENCY PLAN IMPLEMENTING PROCEDURES/VOLUME 2

## UPDATE LIST

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Date of Issue: July 21, 2000

Procedure Number	Procedure Title	Revision Number	Date of Last Review	Use of Procedure
EAP-14.6	HABITABILITY OF THE EMERGENCY FACILITIES	REV. 14	10/98	Informational
EAP-15	EMERGENCY RADIATION EXPOSURE CRITERIA AND CONTROL	REV. 10	02/00	Informational
EAP-16	PUBLIC INFORMATION PROCEDURE	REV. 6	02/98	Informational
EAP-17	EMERGENCY ORGANIZATION STAFFING	REV. 89	04/00	Informational
EAP-18	DELETED (12/93)			
EAP-19	EMERGENCY USE OF POTASSIUM IODINE (KI)	REV. 19	03/98	Informational
EAP-20	POST ACCIDENT SAMPLE, OFFSITE SHIPMENT AND ANALYSIS	REV. 8	02/98	Reference
EAP-21	DELETED (12/85)			
EAP-22	DELETED (02/98)			
EAP-23	EMERGENCY ACCESS CONTROL	REV. 10	02/98	Informational
EAP-24	EOF VEHICLE AND PERSONNEL DECONTAMINATION	REV. 8	02/98	Informational
EAP-25	DELETED (02/94)			

NEW YORK POWER AUTHORITY  
JAMES A. FITZPATRICK NUCLEAR POWER PLANT  
EMERGENCY PLAN IMPLEMENTING PROCEDURE

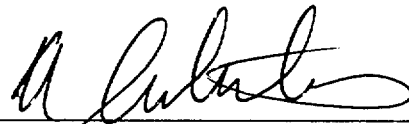
ONSITE/OFFSITE DOWNWIND SURVEYS AND  
ENVIRONMENTAL MONITORING\*  
EAP-5.3  
REVISION 7

REVIEWED BY: PLANT OPERATING REVIEW COMMITTEE

MEETING NO. N/A

DATE: N/A

APPROVED BY:



RESPONSIBLE PROCEDURE OWNER

DATE:

7/10/2000

EFFECTIVE DATE:

July 21, 2000

FIRST ISSUE ☐

FULL REVISION ☐

LIMITED REVISION ☒

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* INFORMATIONAL USE *	* TSR *
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PERIODIC REVIEW DUE DATE: FEBRUARY 2002

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REVISION SUMMARY SHEET

REV. NO.

- |   |                                                                                                                                                                                                                                                                                     |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7 | On attachment 2, added "(obtain 25ft <sup>3</sup> ) to column Sample Volume (ft <sup>3</sup> )"                                                                                                                                                                                     |
|   | Changed RTP-74 TO RP-INST-02.09, editorial change.                                                                                                                                                                                                                                  |
| 6 | Reformat per AP-02.01, Rev. 5.<br>Section 4.2.2: note added to include radio dispatcher/operator in team briefing.<br>Attachment 2 revised to clarify information.<br>Sample point L-5: correct road designation.<br>Revise Attachment 4 Onsite Survey Map to include site changes. |

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1.0 PURPOSE

This procedure provides instructions for performing onsite/offsite downwind surveys and for collecting various environmental media including air, water, soil, snow, vegetation, grass and TLDs.

2.0 REFERENCES

2.1 Performance References

- 2.1.1 EAP-15, EMERGENCY RADIATION EXPOSURE CRITERIA AND CONTROL\*
- 2.1.2 EAP-19, EMERGENCY USE OF POTASSIUM IODIDE (KI)\*
- 2.1.3 EAP-24, EOF VEHICLE AND PERSONNEL DECONTAMINATION\*
- 2.1.4 EAP-27, ESTIMATION OF POPULATION DOSE WITHIN THE 10 MILE EPZ\*
- 2.1.5 SAP-2, EMERGENCY EQUIPMENT INVENTORY\*
- 2.1.6 RP-INST-02.09, MS-2 MINI SCALER OPERATION AND CALIBRATION
- 2.1.7 SP-04.01, RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

2.2 Developmental References

- 2.2.1 EAP-4, DOSE ASSESSMENT CALCULATIONS\*
- 2.2.2 EAP-15, EMERGENCY RADIATION EXPOSURE CRITERIA AND CONTROL\*
- 2.2.3 EAP-17, EMERGENCY ORGANIZATION STAFFING\*
- 2.2.4 EAP-19, EMERGENCY USE OF POTASSIUM IODIDE (KI)\*
- 2.2.5 EAP-24, EOF VEHICLE AND PERSONNEL DECONTAMINATION\*
- 2.2.6 EAP-27, ESTIMATION OF POPULATION DOSE WITHIN THE 10 MILE EPZ\*
- 2.2.7 SAP-2, EMERGENCY EQUIPMENT INVENTORY\*
- 2.2.8 RP-INST-02.09, MS-2 MINI SCALER OPERATION AND CALIBRATION
- 2.2.9 SP-04.01, RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM



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**3.0 INITIATING EVENTS**

- 3.1 A radioactive release to the environment is suspected or is underway which has resulted in a declared emergency, **or**
- 3.2 A request for downwind surveys/environmental monitoring has been issued by the Shift Manager, Emergency Director, Radiological Support Coordinator or designee, **and**
- 3.3 Survey team members have been notified and assembled at the TSC, OSC, or EOF in accordance with EAP-17, EMERGENCY ORGANIZATION STAFFING\*, or at the Control Room, in accordance with EAP-4, DOSE ASSESSMENT CALCULATIONS\*

**4.0 PROCEDURE**

**NOTE:** The on-shift Radiation Protection Technician dispatched to the site boundary for initial protective action recommendations from the Control Room shall perform only the applicable sections of this procedure required to safely and expeditiously provide survey data to the Control Room.

**4.1 Shift Manager/Emergency Director/Radiological Support Coordinator Responsibilities**

The SM, ED, RSC or designee shall:

- 4.1.1 Direct the assembly of survey team(s).
- 4.1.2 Designate a radio dispatcher.
- 4.1.3 Assign a team leader and team number to each survey team.
- 4.1.4 Assign cellular phone numbers and backup radio communications frequencies to each team, as applicable.

- 
- 4.1.5 Brief and update each team providing them with the following information (refer to Attachment 1, Survey Team Briefing Form). Provide a copy of the completed form to the team and retain the original for reference.
- A. Dosimeter readings
  - B. Maximum allowable dose (see EAP-15, EMERGENCY RADIATION EXPOSURE CRITERIA AND CONTROL)\*
  - C. Nature of airborne release, if applicable
  - D. Survey points/locations
  - E. Wind direction
  - F. Types of samples/surveys to collect
  - G. Projected dose rates
  - H. Protective measures to be used
  - I. Use of KI [see EAP-19, EMERGENCY USE OF POTASSIUM IODIDE (KI)]\*
  - J. Communications specifics (type, radio channel, etc.)
  - K. Special and/or hazardous conditions
  - L. Meteorological data/forecast
  - M. Plant conditions/emergency classification
- 4.1.6 For TLD collection, ensure requirements for EAP-27, ESTIMATION OF POPULATION DOSE WITHIN THE 10 MILE EPZ\*, have been fulfilled and provide replacement emergency TLDs if required.
- 4.1.7 Direct that each team obtain and prepare emergency kits for dispatch.
- 4.1.8 Maintain radio or telephone contact with survey teams and record survey data on the Downwind Survey Log Sheet (Attachment 2) and/or Survey Team Communication Form (Attachment 14).

- 
- 4.1.9 Transmit to the survey teams any changes in location assignments, sample types required, changes in wind direction, etc.
  - 4.1.10 Based on personnel and equipment monitoring results:
    - A. Direct teams to proceed to decontamination, or,
    - B. Direct teams to deliver air samples, TLDs and data to the Environmental Lab for analysis, if applicable.

#### 4.2 Survey Team Preparations

- 4.2.1 Assemble at the CR, TSC, OSC or EOF, as directed by the SM, ED, RSC, or designee.
- 4.2.2 Receive a briefing from the SM, ED, RSC or designee. Record briefing information on Attachment 1, Survey Team Briefing Form. Ensure that all information on the form is covered.

**NOTE:** The Radio Dispatcher/Operator should be included in the team briefing.

#### 4.3 Survey Team Equipment

- 4.3.1 Obtain emergency kit(s) at the locations indicated in SAP-2, Attachment 1, Emergency Equipment Location. Kits are located in the OSC area and in the EOF.
- 4.3.2 Gather necessary protective gear (dosimeters, respirators, etc.) as instructed during briefing.
- 4.3.3 Perform source checks, operability checks and battery checks on equipment, in accordance with applicable instrument/ equipment procedure. Check calibration dates on equipment. Use survey instruments in accordance with applicable instrument procedures.
- 4.3.4 Zero personal pocket dosimeters. Record "Initial Dosimeter Reading" where appropriate on the Survey Team Briefing Form, Attachment 1.
- 4.3.5 Install a particulate filter and a Silver Zeolite iodine collection cartridge on the air sampler.

- 4.3.6 Don protective clothing and respirator if so instructed during briefing.
- 4.3.7 Load equipment into vehicle. Place survey meter in vehicle and ensure that it is turned on.

#### 4.4 Survey Team Transportation

- 4.4.1 Transport all equipment designated to survey vehicle and prepare it for the mission. There are three (3) vehicles designated for use by team members during an emergency. They consist of two (2) vans (EP #1 and EP #2) and a 4-wheel drive Suburban (RES3). These vehicles are equipped with an AC power source, radios, and cellular phones. (Private vehicles may be used if necessary with a portable radio.)
- 4.4.2 Check spare tire and gas level before driving out making sure the vehicle has enough gas for the trip.
- 4.4.3 Complete the preoperational check of the generator and air sampler by starting the generator, plugging the air sampler into the 120 volt receptacle in the vehicle and switching it on. Observe satisfactory operation as indicated by flow on the indicator. Turn the unit off after checking and leave the filter and cartridge installed.
- 4.4.4 Conduct a phone and radio check with the dispatcher to establish communications. Request any final instructions.
- 4.4.5 Use the maps provided in this procedure and in the emergency kit and proceed to survey/sample locations.

**NOTE:** Drive slowly on dirt roads to avoid stirring up excessive dirt and dust.

#### 4.5 Survey Team Communications

- 4.5.1 Maintain continuous phone and/or periodic radio contact with the dispatch center, reporting such information as team location and progress, current dosimeter readings, survey meter readings en route, arrival and departure times from each sample location.

- 4.5.2 Use the Survey Team Communication Form, Attachment 14, to record any messages, new instructions, etc. from the dispatcher.
- 4.5.3 If the cellular phone and radio become inoperative, use public telephones to communicate with the dispatch center. (The Primary telephone numbers are: 349-6707 for the TSC and 593-5991 for the EOF dispatchers.)

#### 4.6 Downwind Survey and Air Sampling Instructions

- 4.6.1 Use the maps and location descriptions provided in this procedure and in the emergency kit to locate survey/sample locations. Descriptions of the sample locations are presented in the List of Environmental Monitoring Stations, Attachment 11, the List of Environmental TLDs, Attachment 12, and the List of Emergency TLDs, Attachment 13.

**NOTE:** Survey teams will be sent to designated locations selected for ease of access and importance of expected dose to the population. Survey teams may be requested to proceed to any or all of three general areas, as follows:

- A. Site Fence. This is the outermost fence surrounding the plant. At a minimum, radiation level readings will be taken at a specified point at the fence and in both directions along the fence from that point.
  - B. Site Boundary. This is defined as the joint NMPC and NYPA site property line. Surveys conducted at designated points along or within the site boundary normally are performed in the same manner as for offsite downwind surveys.
  - C. Offsite. This is the property beyond the site boundary. Points in this area are surveyed for airborne activity as well as for deposition.
- 4.6.2 Determine the maximum concentration at each survey location by scanning to the left and right. At the position of highest dose rate, commence survey and data recording.

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- 4.6.3 Perform both beta and gamma surveys with an ionization chamber survey meter. (Record instrument serial numbers, time, survey location and beta/gamma dose rates on Downwind Survey Log Sheet, Attachment 2.)
- A. Take three readings at waist level (3 feet above ground) within a circle of about 10-15 yards in diameter at the sampling location. Record and transmit back to dispatch center the highest of the three (3) readings.
- B. Take three readings at 3 inches above ground at locations corresponding to the waist level readings. Record and transmit back to the dispatch center the highest of the three (3) readings.
- 4.6.4 Transmit results of survey to the dispatch center, as stated above. (Be sure to identify team, time, survey location as well as dose rate data.) Acknowledge accurate receipt of information repeated back by dispatcher.
- 4.6.5 As directed by the dispatcher, conduct an air sample in accordance with steps 4.6.6 - 4.6.11 **or** proceed to next sampling location and survey in accordance with steps 4.6.2 - 4.6.4 **or** return to station in accordance with step 4.6.13.
- 4.6.6 Set up the portable air sampler such that it has power, has both particulate filter and Silver Zeolite iodine collection cartridge and is between 3 and 7 feet off the ground.
- 4.6.7 Obtain a sample of 25 cubic feet. (Run the sampler for a time interval corresponding to the flow rate data affixed to the pump such that 25 cubic feet is obtained. A normal flow rate is about 3.3 cfm.)

4.6.8 For air samples collected in locations with a dose rate greater than 1 mR/hr, move to an area with a dose rate of less than 1 mR/hr and draw a one minute purge on the sample cartridge prior to counting. This will purge noble gases from the sample assembly. For air samples collected in locations with a dose rate of less than 1 mR/hr, count sample at that location.

4.6.9 Perform a background count, particulate filter count and Silver Zeolite iodine cartridge count separately. (Iodine sample counts greater than 8,500 net cpm should be returned as directed for HPGe analysis.)

A. Use the mini scaler as the primary counting instrument for both the particulate and iodine cartridge. See RP-INST-02.09, MS-2 MINI SCALER OPERATION AND CALIBRATION.

1. Obtain a background count.
2. Place the particulate filter in the sample holder textured side up.
3. Record the total counts.
4. Remove the particulate filter and store in an air sample envelope. Record date, time, location, volume, and total counts on sample envelope and on Attachment 2.
5. Obtain another background count.
6. Remove the sample holder slide drawer. Place the iodine cartridge in the sample holder.
7. Record the total counts.
8. Remove the iodine cartridge and store in a plastic bag. Record date, time, location, volume, and total counts on plastic bag and on Attachment 2.

B. Use the count rate meter if a back-up counting instrument is needed.

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- 4.6.10 Put a fresh particulate filter and Silver Zeolite iodine cartridge into holder for next air sample. Field teams should frisk hands after handling any samples.
  - 4.6.11 Transmit results of air sampling to the dispatch center. (Be sure to identify team, time sample collected, survey location, sample count data and sample volume.) Acknowledge accurate receipt of information repeated back by radio dispatcher.
  - 4.6.12 As directed by the dispatcher, proceed to next sampling location and survey in accordance with steps 4.6.2 - 4.6.4, or proceed with step 4.6.13.
  - 4.6.13 As directed by the dispatcher, proceed to selected environmental monitoring stations to retrieve air samples and TLDs, if required. Survey radiation levels at these locations and record the data on the Downwind Survey Log Sheet, Attachment 2. Refer to steps 4.7, 4.8 or 4.9 as applicable.

#### 4.7 Air Sample Collection From Air Sample Monitoring Station

- 4.7.1 For environmental sample collection, ensure requirements for EAP-27, ESTIMATION OF POPULATION DOSE WITHIN THE 10 MILE EPZ, have been fulfilled.
- 4.7.2 If information is needed from the Eberline radiation monitor cabinet, have the dispatcher call NMPC to dispatch a qualified environmental technician for assistance.
- 4.7.3 Don plastic gloves. Unlock the Air Sample Monitoring Station cabinet using the P-5 key found in the emergency kit. Open the door using the "T" shaped key located in the locking device on the right-hand cabinet door.
- 4.7.4 Record the date, time, gas meter reading and gas meter used in the SAMPLE OFF space on the envelope located in the cabinet.
- 4.7.5 Turn the pump switch to the OFF position.
- 4.7.6 Unscrew the filter holder and remove the used particulate filter and radioiodine cartridge filters.



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- 4.7.7 Indicate the direction of flow of the cartridge with an arrow and label with the sample station, and date. Place the used cartridge in a plastic bag. Place used filter in appropriate container.
  - 4.7.8 Remove the plastic gloves and place in a plastic bag for use at the next sample location, if appropriate.
  - 4.7.9 Label a new air sample envelope with the sample station, date and time on, gas meter reading and gas meter number.
  - 4.7.10 Reset the pump run time indicator or record time indicator reading as applicable. Inspect the flow path to the filter for obstructions.
  - 4.7.11 Label the discharge side of a new particulate filter with the station designation and date. Label the new radioiodine cartridge with station designation, flow direction and date. Insert the new particulate filter and new radioiodine cartridge. Fasten the sample holder back together.
  - 4.7.12 Check that the new particulate filter is placed on the inlet side of the radioiodine cartridge. Repeat 4.7.11 if the filter is placed incorrectly.
  - 4.7.13 Turn the pump switch to the ON position.
  - 4.7.14 Place the new air sample envelope in the cabinet.
  - 4.7.15 Collect the emergency TLD and install a new emergency TLD utilizing procedure steps 4.8.1 through 4.8.3, if provided during briefing.
  - 4.7.16 Close and lock the cabinet.
  - 4.7.17 Load TLD and/or air samples in the vehicle.
  - 4.7.18 Report your team number, sample location, and the information on the used air sample envelope to the radio dispatcher.
  - 4.7.19 Continue to the next designated location and begin this procedure at step 4.7, 4.8, or 4.9 as applicable. If environmental sample collection has been completed, continue this procedure with step 4.10.

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- 4.7.20 If air samples are to be taken using portable air samplers, refer to steps 4.6.5 - 4.6.9.

**4.8 Emergency TLD Collection/Installation**

- 4.8.1 Prior to collecting any emergency and/or environmental TLDs, ensure requirements of EAP-27, ESTIMATION OF POPULATION DOSE WITHIN THE 10 MILE EPZ\*, have been fulfilled.
- 4.8.2 Collect emergency TLD from survey/sample location or emergency TLD monitoring station. Record TLD number and location on Environmental/Emergency TLD Form, Attachment 15.
- 4.8.3 Install a new TLD. Record TLD number and location on Environmental/Emergency TLD Form, Attachment 15.
- 4.8.4 Complete steps 4.7.15 through 4.7.19 if you are at an air sampling location.
- 4.8.5 Load TLD in the vehicle.
- 4.8.6 Report your team number and sample location to the radio dispatcher at each location.
- 4.8.7 Continue to the next designated location and begin this procedure at step 4.7, 4.8, or 4.9, as applicable. If environmental sample collection has been completed, proceed to step 4.10.
- NOTE:** Environmental TLDs are to be collected only if replacements are available at the time of collection, unless otherwise instructed by the Radiological Support Coordinator or designee.
- 4.8.8 Collect environmental TLDs in accordance with steps 4.8.1 through 4.8.7. (Additional information concerning the collection of environmental TLDs is found in SP-04.01, RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM.)

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4.9 Other Environmental Media Sample Collection

(Refer to Radiological Environmental Sampling Program, Attachment 16, for guidance while collecting samples.)

4.9.1 If water is to be sampled,

- A. Measure and record (on Attachment 3) radiation readings at the surface and 3 feet above it.
- B. Collect surface water sample using clean, unused polyethylene containers. (Each sample must total one (1) gallon in volume, whether in one or more containers.)
- C. Record applicable information on the Environmental Sample Information Form, Attachment 3. Make sure to indicate whether the sample is still water (i.e. pond) or running water (i.e. stream).
- D. Seal containers for transit with tape.
- E. Label containers with a date, time and location, and record on Attachment 3.
- F. Load sample containers in vehicle for transfer to laboratory for analysis.

4.9.2 If milk is to be sampled,

- A. Measure and record (on Attachment 3) radiation readings at the surface and 3 feet above it.
- B. Request local farmers to remove raw milk samples from collecting tanks or direct samples from cows and place sample in clean, unused polyethylene containers in presence of sample team. (Each sample must total one (1) gallon in volume, whether in one or more containers.)
- C. Record applicable information on the Environmental Sample Information Form, Attachment 3.
- D. Seal containers for transit with tape.
- E. Label containers with a date, time and location, and record on Attachment 3.
- F. Load sample containers in vehicle for transfer to laboratory for analysis.

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4.9.3 If soil is to be sampled,

- A. Measure and record (Attachment 3) radiation readings at surface of soil and 3 feet above it.
- B. The potentially contaminated area should be segmented into a grid pattern of approximately 100 square feet (10 ft. x 10 ft.). The grid size may be adjusted to accommodate the overall area.
- C. Prepare a sample map designating sample locations.
- D. One sample shall be taken from each grid. The sample should represent a known sample surface area which is determined by the sampling device used. The size of the surface area should be sufficient to provide a minimum of 500 ml of sample.
- E. Use a sample device of a known surface area, such as a small coring device or a small trowel with a template.
- F. Samples shall be collected to depth of 1.0 inch, or when taking samples of a deeper profile, the soil should be removed to the desired depth in 1.0 inch layers down to the desired depth. Using the sampling device, carefully remove each inch layer (as required) of soil. Rock and debris greater than approximately 0.5" across should be removed from the sample.
- G. Place the soil in a plastic bag and seal with tape. Only one layer of soil should be placed in each bag. Label the bag with the date, time, location, and grid location, sample surface area and map number, if appropriate.
- H. Place a stake in the ground where the sample was taken. Note the sample number on the stake. This step is optional.
- I. Wipe down the digging tool and plastic ring to avoid the spreading of contamination to the next sample location.

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- J. Record appropriate data on Attachment 3.
  - K. Load samples in vehicle for transfer to laboratory for analysis.
- 4.9.4 If vegetation is to be sampled,
- A. Measure and record (Attachment 3) radiation readings at surface and 3 feet above it.
  - B. Vegetation should be sampled based on deposition possibilities and availability for sufficient sample size. Tree or shrub leaves should be sampled from the outer perimeter of the tree or shrub that is not sheltered and would be most representative of deposition. Ground covers such as lettuce or flowers should be sampled from open areas. Large leaf vegetation is better than small leaf vegetation. If rain has occurred since the release, any deposited contamination may have been washed off.
  - C. Take samples of leafy vegetation in quantities of about 2 1/2 pounds (approximately 1 kg.) using shears if necessary.
  - D. Place samples in an appropriate size polyethylene bag and close bag securely.
  - E. Record applicable information on the Environmental Sample Information Form, Attachment 3.
  - F. Label bag with the date, time and location, and record on Attachment 3.
  - G. Load sample bags in vehicle for transfer to laboratory for analysis.

4.9.5 If snow is to be sampled,

- A. Select the area to be sampled from the general location that has not been subjected to non-meteorological disturbances (i.e. plowing, etc.). When selecting areas to sample consideration must be given to the following variables:
  1. Rate of snowfall at and since the time of release (i.e. this would influence the snow sample depth of interest).
  2. Air temperatures since the snowfall of interest has occurred (i.e. warming trend may cause surface snow to melt).
  3. Wind speed and direction (i.e. drifting of snow).
  4. Sunshine, rain or other conditions occurring after the snowfall of interest (i.e. melting, freezing and/or rain may mean the snow deposition is fixed in an ice layer and is not affected by winds).
- B. Measure and record (Attachment 3) radiation readings at surface of snow and 3 feet above it.
- C. Locate two (2) reference points at the sampling location.
- D. Collect snow at a depth sufficient to be representative of the snow of interest (i.e. see variables in step 4.9.5.A). A sample size of approximately one square foot area should be obtained.
- E. Place sample in clean, unused polyethylene bag. It is recommended that containers be double bagged to prevent leakage as snow melts. Label sample with the date, time, location and number.

- F. Record the following data on Attachment 3:  
location selected, area sampled in square feet,  
depth sampled, direction and approximate feet  
from two reference points, weather conditions,  
and time of sampling.
- G. Load samples in vehicle for transfer to  
laboratory for analysis.

4.9.6 If grass is to be sampled,

- A. Measure and record (Attachment 3) radiation  
readings at the surface and 3 feet above it.
- B. Locate two reference points at the sampling  
location.
- C. Clip the grass in the sample area as close to  
the roots as possible without including dirt.  
Grass samples should total 1 kg. in volume.
- D. Place samples in an appropriate size container  
and close securely. Label sample with the  
date, time and location.
- E. Record applicable information on Attachment 3:  
location selected, direction and distance from  
two reference points, time of sampling and  
approximate surface area sampled.
- F. Load samples in vehicle for transfer to  
laboratory for analysis.

4.10 Survey Team Closeout

- 4.10.1 Return to the location specified by the dispatcher  
and turn in samples and records.
- 4.10.2 Before dropping off the vehicle, remove any  
protective clothing and respirators. Place the  
used protective clothing on the vehicle floor  
until a contamination survey is completed.

- 
- 4.10.3 Check the survey vehicle interior and exterior for possible contamination with the count rate meter before leaving the vehicle in the parking lot. Report readings above background as designated during briefing to the dispatcher for further instructions. Otherwise, proceed to the location specified. See EAP-24, EOF VEHICLE AND PERSONNEL DECONTAMINATION\*.
- 4.10.4 Check equipment for contamination at the dispatch center. If contamination is found, refer to EAP-24, EOF VEHICLE AND PERSONNEL DECONTAMINATION\*.
- 4.10.5 Monitor each other for contamination (>100 cpm above background on a count rate survey meter). If contamination is detected, radio the dispatcher to request further directions and aid in performing decontamination measures. See EAP-24, EOF VEHICLE AND PERSONNEL DECONTAMINATION\*. Request an individual to pick up environmental samples, TLDs and data forms so that laboratory analyses can be made. Return to the dispatch center after decontamination with your dosimeters.
- 4.10.6 Check each team member's dosimeter reading, record it under "Final Dosimeter Reading" on Attachment 1. Turn over this record and the other data forms to the dispatcher, Chemistry Lab or Environmental Lab as appropriate.



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5.0 **ATTACHMENTS**

1. SURVEY TEAM BRIEFING FORM
2. DOWNWIND SURVEY LOG SHEET
3. ENVIRONMENTAL SAMPLE INFORMATION FORM
4. ONSITE EMERGENCY PLANNING SURVEY MAP
5. ONSITE ENVIRONMENTAL STATION AND TLD LOCATIONS
6. OFFSITE ENVIRONMENTAL STATION AND TLD LOCATIONS
7. ONSITE EMERGENCY PLANNING SURVEY
8. OFFSITE SURVEY LOCATIONS MAP 4
9. COMBINED NMPNS/JAFNPP SITE MAP
10. TABLE OF ONSITE AND OFFSITE SURVEY/SAMPLE LOCATIONS
11. LIST OF ENVIRONMENTAL MONITORING STATIONS
12. LIST OF ENVIRONMENTAL TLDS
13. LIST OF EMERGENCY TLDS
14. SURVEY TEAM COMMUNICATION FORM
15. ENVIRONMENTAL/EMERGENCY TLD FORM
16. RADIOLOGICAL ENVIRONMENTAL SAMPLING PROGRAM
17. NMP SITE SURVEY LOCATIONS

# SURVEY TEAM BRIEFING FORM

Page 1 of 1

1. Date \_\_\_\_\_ Time \_\_\_\_\_ Team No. \_\_\_\_\_ Survey Requested By \_\_\_\_\_
2. Team Dispatcher \_\_\_\_\_; Dispatch Center at \_\_\_\_\_ tel. no. \_\_\_\_\_
3. Team Leader \_\_\_\_\_; Initial dosimeter reading \_\_\_\_\_ TLD No. \_\_\_\_\_  
Final dosimeter reading \_\_\_\_\_
4. Team Member \_\_\_\_\_; Initial dosimeter reading \_\_\_\_\_ TLD No. \_\_\_\_\_  
Final dosimeter reading \_\_\_\_\_
5. Maximum dose allowed for this survey: (Refer to EAP-15, Emergency Exposure Criteria and Control\*)  
Team Leader: \_\_\_\_\_ rem; authorized by: \_\_\_\_\_  
Team Member: \_\_\_\_\_ rem; authorized by: \_\_\_\_\_
6. Nature of airborne release: \_\_\_\_\_ ground; \_\_\_\_\_ elevated; \_\_\_\_\_ unknown.
7. Survey points/locations: \_\_\_\_\_  
\_\_\_\_\_
8. Wind directions (from) or critical sectors/ERPAs: \_\_\_\_\_
9. Environmental monitoring stations to be checked and samples brought back: (if known)  
Station No. or location: \_\_\_\_\_, for: \_\_\_\_\_ air; \_\_\_\_\_ TLD  
\_\_\_\_\_, for: \_\_\_\_\_ air; \_\_\_\_\_ TLD  
\_\_\_\_\_, for: \_\_\_\_\_ air; \_\_\_\_\_ TLD
10. Projected dose rates at survey locations (when available):  
location: \_\_\_\_\_; dose rate: \_\_\_\_\_ mr/hr  
location: \_\_\_\_\_; dose rate: \_\_\_\_\_ mr/hr  
location: \_\_\_\_\_; dose rate: \_\_\_\_\_ mr/hr
11. Protective measures to be used:  

(1) <input checked="" type="checkbox"/> pocket dosimeter	(6) _____ coveralls/hood	(10) other (specify)
(2) <input checked="" type="checkbox"/> TLD	(7) _____ gloves	_____
(3) _____ other dosimeter (specify)	(8) _____ shoe covers	_____
(4) _____ SCBA	(9) _____ KI	_____
(5) _____ respirator/cartridges/filters		
12. Radiation data to be collected:  

(1) beta/gamma (3 foot)	(3) beta/gamma (3 inches)	
(2) air sample	(4) other (specify) _____	
13. Assigned radio channel/telephone number for callback: \_\_\_\_\_
14. Any other special or hazardous conditions: \_\_\_\_\_
15. Special instructions: \_\_\_\_\_  
\_\_\_\_\_
16. Meteorological Data/Forecast: \_\_\_\_\_  
\_\_\_\_\_
17. Plant conditions/emergency classification: \_\_\_\_\_
18. Survey Info. briefed/filled in by \_\_\_\_\_ at \_\_\_\_\_

**A COPY OF THIS FORM SHALL BE PROVIDED TO EACH SURVEY TEAM.**

## DOWNWIND SURVEY LOG SHEET

Page 1 of 1

Date of Surveys      /      /     Team No.     :(Name)                     (Name)                     (Name)                     Team No.     :(Name)                     (Name)                     (Name)                     Team No.     :(Name)                     (Name)                     (Name)                     

**NOTE:** Iodine canisters with count rate greater than 8,500 net cpm should be returned to the site for HPGe analysis on a priority basis.

Team No.	Survey Location	Time	Dose Rate 3 inch (mrem/hr)	Dose Rate 3 foot (mrem/hr)	Sample Volume (ft <sup>3</sup> ) (obtain 25 ft <sup>3</sup> )	Air Sample net cpm (Gross-Bkg=Net)
			Open Window =	Open Window =		Iodine Bkg: Iodine Net:
			Closed Window =	Closed Window =		Part. Bkg: Part. Net:
			Open Window =	Open Window =		Iodine Bkg: Iodine Net:
			Closed Window =	Closed Window =		Part. Bkg: Part. Net:
			Open Window =	Open Window =		Iodine Bkg: Iodine Net:
			Closed Window =	Closed Window =		Part. Bkg: Part. Net:

Dose Rate Instrument Model #                                     S/N                                     Count Rate Instrument Model #                                     S/N                                     Team No.     : High Volume Air Sampler Model #                                     S/N                                     Dose Rate Instrument Model #                                     S/N                                     Count Rate Instrument Model #                                     S/N                                     Team No.     : High Volume Air Sampler Model #                                     S/N                                     Dose Rate Instrument Model #                                     S/N                                     Count Rate Instrument Model #                                     S/N                                     Team No.     : High Volume Air Sampler Model #                                     S/N                                     

EAP-5.3

Rev. No.   7  

ONSITE/OFFSITE DOWNWIND SURVEYS AND  
ENVIRONMENTAL MONITORING\*

ATTACHMENT 2

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ENVIRONMENTAL SAMPLE INFORMATION FORM

Page 1 of 1

Type of Sample \_\_\_\_\_ Number \_\_\_\_\_

Date \_\_\_\_\_ Time \_\_\_\_\_

Technician \_\_\_\_\_

Location \_\_\_\_\_

Reference Object #1

Reference Object #2

\_\_\_\_\_

Direction \_\_\_\_\_

\_\_\_\_\_

Distance \_\_\_\_\_

**Draw Map**

**Survey Before Sampling**

\_\_\_\_\_ Radiation Reading at Surface

\_\_\_\_\_ Radiation Reading at 3 feet

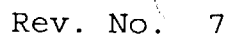
Sample Size (sq. ft.) \_\_\_\_\_ Sample Depth (in.) \_\_\_\_\_  
(if appropriate) (if appropriate)

Weather conditions \_\_\_\_\_

Remarks \_\_\_\_\_

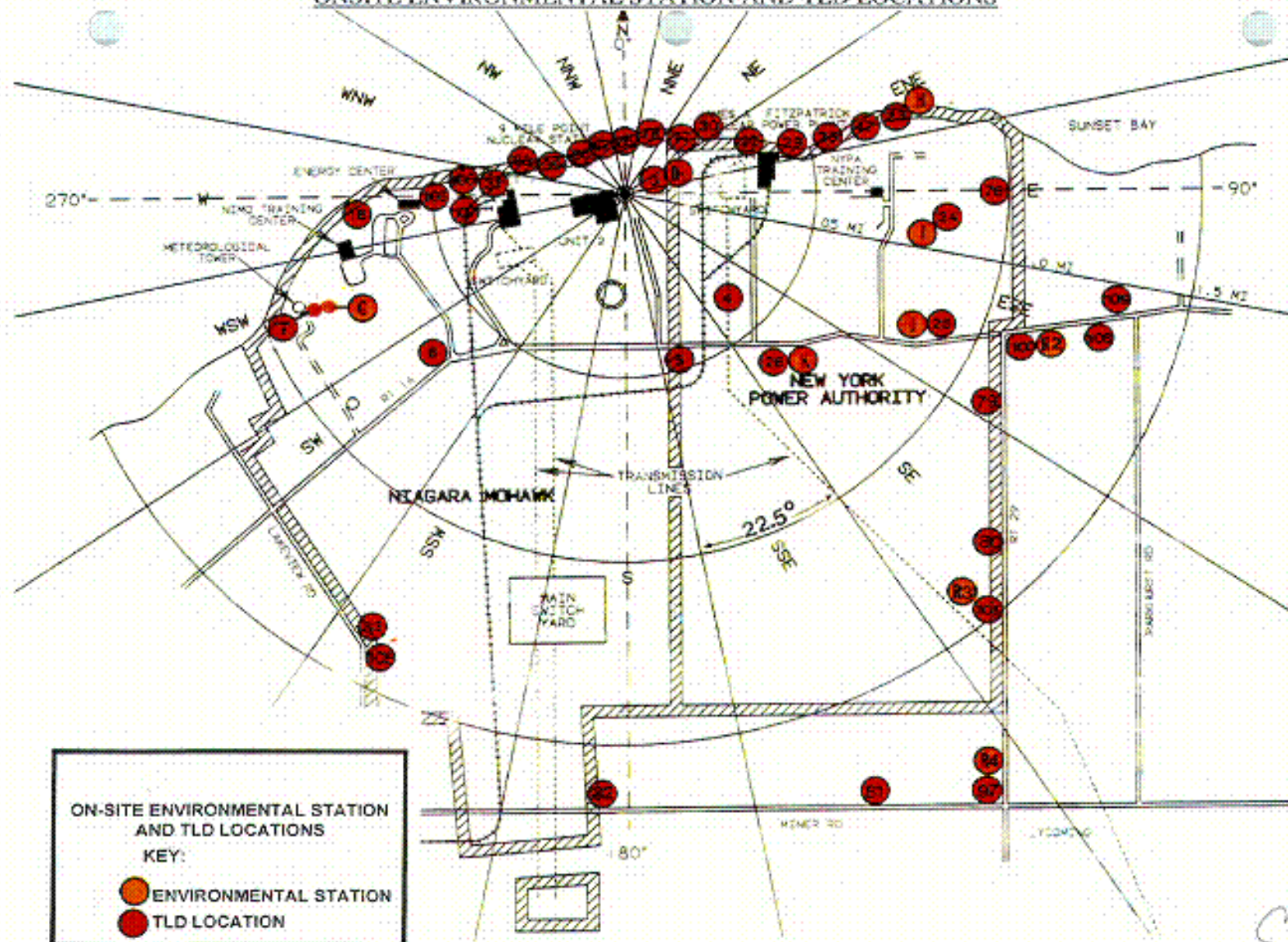
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## Page 1 of 1



ATTACHMENT 5  
ONSITE ENVIRONMENTAL STATION AND TLD LOCATIONS

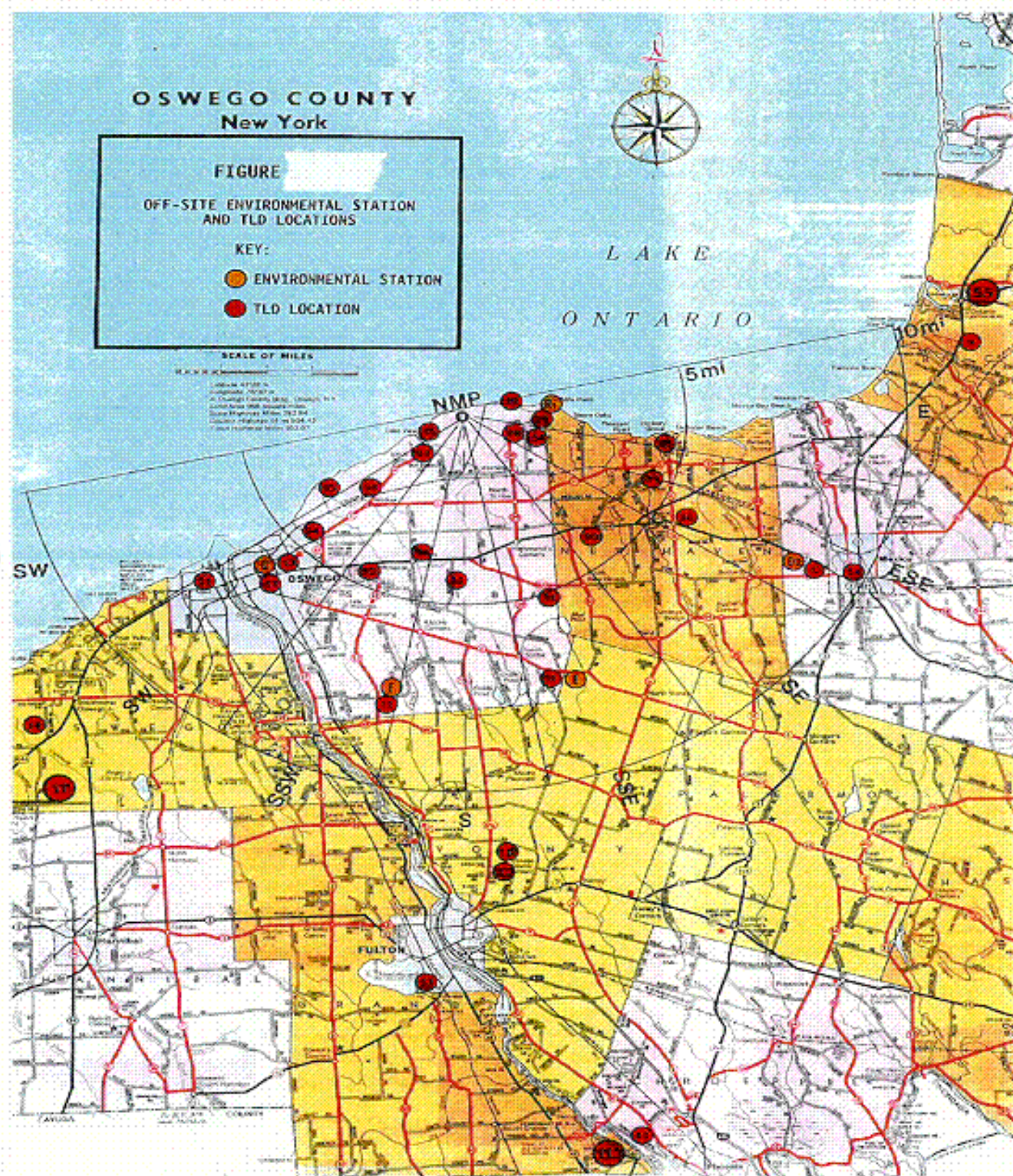
Page 1 of 1





ATTACHMENT 6  
OFFSITE ENVIRONMENTAL STATION AND TLD LOCATIONS

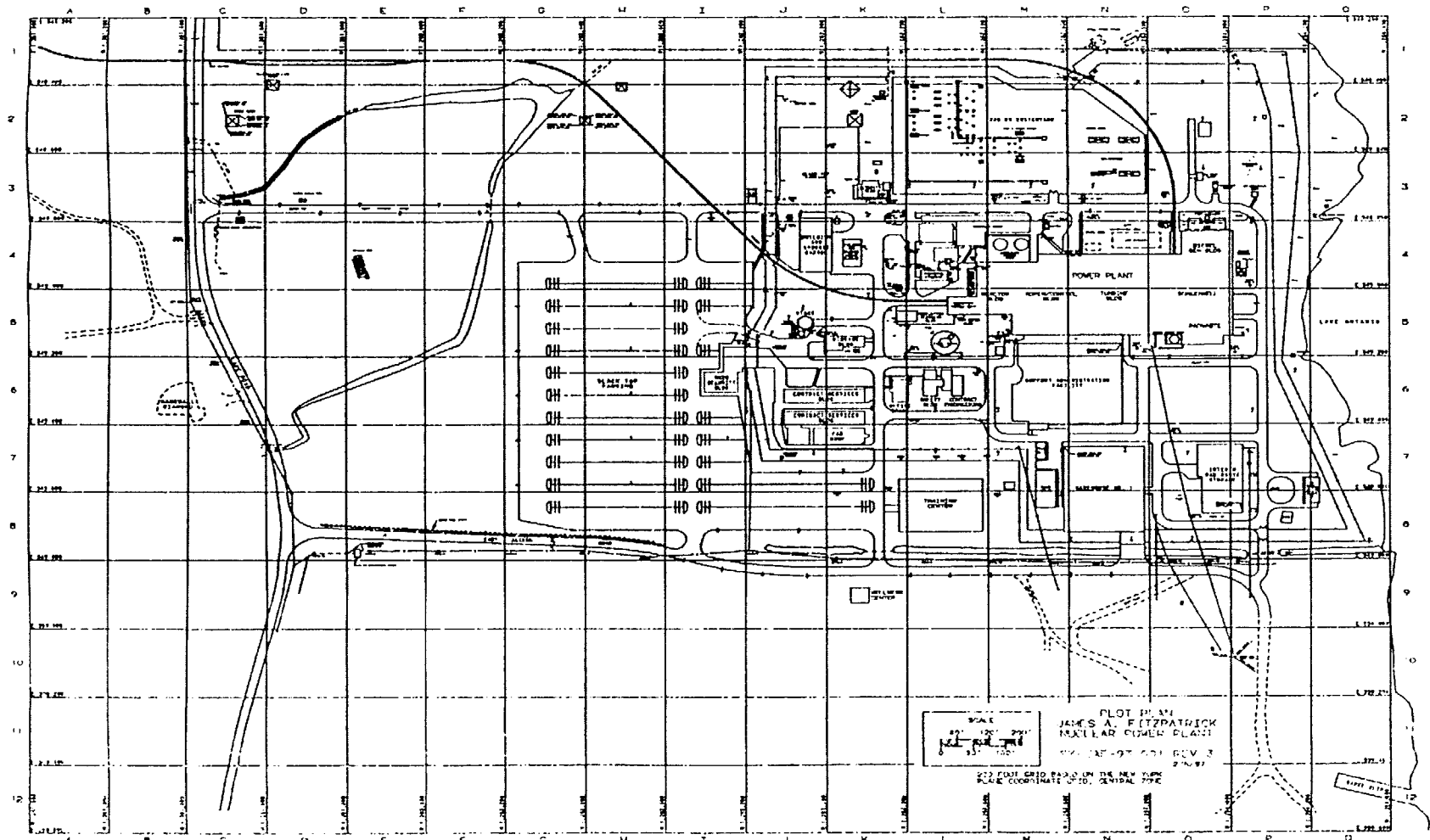
PAGE 1 OF 1





ATTACHMENT 7  
ONSITE EMERGENCY PLANNING SURVEY

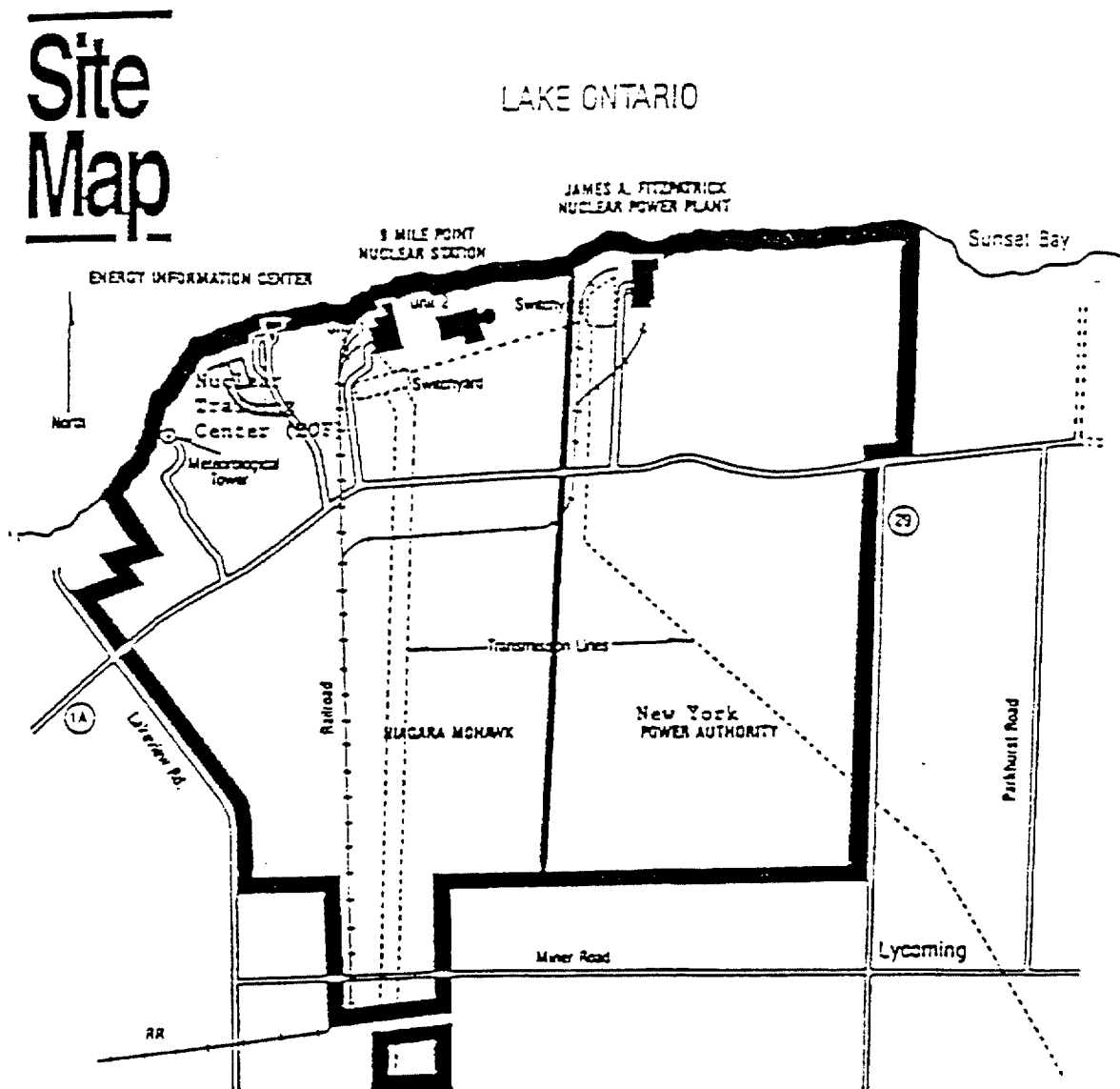
Page 1 of 1





ATTACHMENT 9  
COMBINED NMPNS/JAFNPP SITE MAP

Page 1 of 1



ATTACHMENT 10  
TABLE OF ONSITE AND OFFSITE SURVEY/SAMPLE LOCATIONS

Page 1 of 4

SECTOR & SAMPLE ID#	LOCATION DESIGNATION	DISTANCE FROM SITE**	AZIMUTH°	ERPA(S)
C-1 (offsite)	1.3 miles north on Montario Point Road by Environmental Station C.	16.2 miles	40°	N/A*
D-1 (onsite)	30' south of Main Warehouse at NMP-2 BY ENVIRONMENTAL STATION D <sub>1</sub>	0.4 miles	72°	1
D-2 (onsite)	Dirt access road along the lake on JAFNPP Site by Environmental Station H.	1.0 mile	73°	1
D-3 (offsite)	In hamlet of Selkirk on County Route 5.	11.3 miles	71°	14
D-4 (offsite)	0.65 miles north of the entrance to Selkirk Shores State Park on Route 3.	11.3 miles	77°	14
D-5 (offsite)	Corner Rainbow Shores Road and Route 3.	13.5 miles	65°	N/A*
E-1 (onsite)	In front of NMP-2 combined construction offices.	0.3 miles	89°	1
E-2 (onsite)	On dirt access road at Environmental Station I	0.9 miles	93°	1
E-3 (offsite)	Corner of Lake Road and Nine Mile Point Road.	1.9 miles	97°	1,2
E-4 (offsite)	Shore Oaks - at the end of Shore Oaks Drive.	2.7 miles	94°	2,4
E-5 (offsite)	Hickory Grove - at the end of Hickory Grove Drive.	4.6 miles	96°	4
E-6 (offsite)	Intersection of Route 104B, Route 1 and Route 43.	6.6 miles	101°	7
E-7 (offsite)	Texas - intersection of Route 104B and County Route 16.	7.8 miles	95°	15
E-8 (offsite)	Corner of Ramona Beach Road AND ROUTE 3.	10.2 miles	86°	14

\*N/A = not in an ERPA, outside 10 mile EPZ.

\*\*Center of site is NMP Unit 2.

TABLE OF ONSITE AND OFFSITE SURVEY/SAMPLE LOCATIONS

<u>SECTOR &amp; SAMPLE ID#</u>	<u>LOCATION DESIGNATION</u>	<u>DISTANCE FROM SITE**</u>	<u>AZIMUTH°</u>	<u>ERPA(S)</u>
F-1 (onsite)	Along Lake Road about 0.3 miles east of JAFNPP access road to Environmental Station J.	1.2 miles	107°	1
F-2 (offsite)	Intersection of County Route 29 and Lake Road.	1.1 miles	105°	1
F-3 (offsite)	Nine Mile Point Road halfway between Lake Road and Miner Road intersection.	2.1 miles	114°	2
F-4 (offsite)	Intersection of Pleasant Point Drive and County Route 1.	3.9 miles	110°	4
F-5 (offsite)	Intersection of Route 104 and Route 6 by New Haven School and Environmental TLD #56.	5.5 miles	121°	4,7,8,9
F-6 (offsite)	Intersection of Route 104 and Route 43 at Tollgate.	7.4 miles	116°	7,8
F-7 (offsite)	Intersection of County Route 64 and Route 104 in the Village of Mexico.	9.3 miles	117°	16
G-1 (onsite)	NMP-2 Main Access Road near Security Building.	0.2 miles	129°	1
G-2 (onsite)	Along NMP-2 material access road near Lake Road intersection.	0.5 miles	142°	1
G-3 (onsite)	250' south of JAFNPP access road on Lake Road by Environmental Station K.	0.7 miles	131°	1
G-4 (offsite)	Intersection of Miner Road and County Route 29.	1.9 miles	142°	1,2
G-5 (offsite)	Intersection of Nine Mile Point Road and County Route 1.	2.8 miles	134°	2,4,5
G-6 (offsite)	Intersection of Route 104 & 104B.	4.8 miles	126°	4,9
G-7 (offsite)	Intersection of Lilly Marsh Road and Darrow Road.	6.1 miles	35°	9
G-8 (offsite)	Cummings Bridge - intersection of Routes 6 and 51.	7.3 miles	136°	8,9

\*\*Center of site is NMP Unit 2.

ATTACHMENT 10

Page 3 of 4

TABLE OF ONSITE AND OFFSITE SURVEY/SAMPLE LOCATIONS

SECTOR & SAMPLE ID#	LOCATION DESIGNATION	DISTANCE FROM SITE**	AZIMUTH°	ERPA(S)
G-9 (offsite)	Hamlet of Vermillion on Route 35.	9.6 miles	137°	8,18
H-1 (onsite)	South side of Lake Road about 800' west of NMP-2 material access road.	0.5 miles	155°	1
H-2 (offsite)	Nine Mile Pole #3, half-way between the two transmission lines on Miner Road.	1.6 miles	157°	1,2,3
H-3 (offsite)	North Scriba - intersection of County Routes 1 and 29.	2.5 miles	152°	2,5
H-4 (offsite)	Hammonds Corners - intersec- tion of Routes 104 and 29.	3.5 miles	159°	5,10
H-5 (offsite)	South New Haven - intersec- tion of Routes 51 and 51A.	5.2 miles	149°	9
H-6 (offsite)	250' east of O'Connor Road and County Route 4 by Environmental Station E.	7.1 miles	159°	18
H-7 (offsite)	Intersection of County Route 6 and McDougall Road.	9.2 miles	156°	18
J-1 (onsite)	Along Lake Road, south of NMP-2 Cooling Tower.	0.4 miles	174°	1
J-2 (offsite)	NMP Pole #1 - intersection of Miner Road and NMP Transmission Road.	1.5 miles	177°	1,3
J-3 (offsite)	Intersection of North Road and NMP Transmission Lines east of Lakeview Road.	2.2 miles	178°	3,5
J-4 (offsite)	Intersection of Route 104 and County Route 51A.	3.8 miles	176°	5,10
J-5 (offsite)	Intersection of O'Connor Road and Hay Fly Road.	5.5 miles	176°	10
J-6 (offsite)	Intersection of Route 176 and Black Creek Road.	7.9 miles	177°	20
J-7 (offsite)	Intersection of Route 176 and Howard Road.	11.1 miles	176°	N/A*

\*N/A = not in an ERPA, outside 10 mile EPZ.

\*\*Center of site is NMP Unit 2.

ATTACHMENT 10

Page 4 of 4

TABLE OF ONSITE AND OFFSITE SURVEY/SAMPLE LOCATIONS

<u>SECTOR &amp; SAMPLE ID#</u>	<u>LOCATION DESIGNATION</u>	<u>DISTANCE FROM SITE**</u>	<u>AZIMUTH°</u>	<u>ERPA(S)</u>
K-1 (onsite)	Intersection of Lake Road and E. I. C. ROAD.	0.8 miles	211°	1
K-2 (offsite)	Intersection of Miner Road and Lakeview Road.	1.6 miles	189°	1,3
K-3 (offsite)	Intersection of County Route 1 (North Road) and Creamery Road.	2.6 miles	205°	3,5,6
K-4 (offsite)	Scriba - intersection of Route 104, Creamery Road and Klocks Corners Road.	3.9 miles	194°	5,6,10,11
K-5 (offsite)	Lansing - intersection of County Routes 4 & 53.	5.7 miles	201°	11,19
K-6 (offsite)	0.55 miles east of the corner of Route 53 and Dutch Ridge Road by Environmental Station F.	7.6 miles	193°	19
K-7 (offsite)	Minetto - intersection of County Route 48 and Worden Road.	9.0 miles	201°	21
L-1 (onsite)	Energy Information Center access road, approx. 600' from Lake Road.	0.5 miles	224°	1
L-2 (offsite)	Intersection of Lakeview and Lake Road (Co. Rt. 1A).	1.4 miles	219°	1,3
L-3 (offsite)	Walker - intersection of County Routes 1 and 1A.	3.1 miles	221°	3,6
L-4 (offsite)	100' N of Seneca St. on St. Paul's Cemetery Road by Env. Sta. G.	5.2 miles	226°	12
L-5 (offsite)	Oswego - inter. of Rtes. 104 & 481.	6.6 miles	229°	12
L-6 (offsite)	SUNY at Oswego - intersection of Route 104 and college access road.	8.1 miles	232°	22
L-7 (offsite)	Oswego Center - intersection of County Routes 7 and 20.	9.6 miles	220°	20
M-1 (onsite)	Energy Information Center access road - near intersection to NMP Training Center.	0.5 miles	246°	1
M-2 (onsite)	Meteorological Tower.	0.8 miles	250°	1
N-1 (onsite)	Energy Information Center.	0.4 miles	265°	1

\*\*Center of site is NMP Unit 2.

ATTACHMENT 11  
LIST OF ENVIRONMENTAL MONITORING STATIONS

Page 1 of 2

<u>Sector</u>	<u>Station ID #</u>	<u>Location Description</u>	<u>Direction from Site</u>	<u>Distance from Site</u>
D	D1 Onsite	30' south of NMP-2 Main Warehouse.	E, N.E.	2500'
D	H Onsite	Dirt access road on JAFNPP site along the lake.	E, N.E.	5000'
E	I Onsite	Along dirt access road .5 mile south of Environ- mental Station H (onsite).	E	4500'
F	J Onsite	Along Lake Road (1600') .3 mile east of JAFNPP access road.	E, S.E.	4700'
F	K Onsite	250' south of Lake Road near JAFNPP access road.	E, S.E.	3525'
K	G Onsite	Nine Mile Meteorological Tower.	S, S.W.	2100'

ATTACHMENT 11  
LIST OF ENVIRONMENTAL MONITORING STATIONS

Page 2 of 2

<u>Sector</u>	<u>Station ID #</u>	<u>Location Description</u>	<u>Direction from Site</u>	<u>Distance from Site</u>
E	R1 Offsite	NMP Road, .4 miles North of Lake Road	E	1.8 miles
F	R2 Offsite	Rt. 29 and Lake Road	E, S.E.	1.5 miles
G	R3 Offsite	Rt. 29, .7 miles South of Lake Road	S.E.	1.5 miles
G	R4 Offsite	Rt. 29 and Miner Road	S.E.	2.2 miles
C	R5 Offsite	0.3 miles north on Montario Point Road	N.E.	16.2 miles
L	G	100' N. of Seneca St. on St. Paul's Cemetery Rd.	S.W.	5.3 miles
F	D2	0.75 mile W. on Co. Rt. 64 in Village of Mexico	E, S.E.	9.1 miles
H	E	250' E. of O'Connor Rd. on Co. Rt. 4	S, S.E.	7.3 miles
J	F	0.55 mile E. of Co. Rt. 53 on Dutch Ridge Road	S	7.8 miles

LIST OF ENVIRONMENTAL TLDs

<u>Sector</u>	<u>Station ID #</u>	<u>Location Description</u>	<u>Direction from Site</u>	<u>Distance from Site</u>
A	75	Unit 2, N. Fence North of Rx. Bldg. (RETS #6)	N	800'
A	76	Unit 2, N. Fence North of Change House (RETS #7)	N	600'
A	77	Unit 2, N. Fence North of Pipe Bldg. (RETS #8)	N	600'
A	86	Unit 2, N. Fence, N. of W. Side Screen House (RETS #20)	N	500'
A	87	Unit 2, N. Fence, N. of E. Side Screen House (RETS #21)	N	500'
B	39	N. Fence, Opp. RW Bldg. NMP-1	N, N.E.	300'
D	3	30' South of NMP-2 Stone & Webster Warehouse by Environmental Station D1	E, N.E.	2500'
D	23	Dirt access road along the Lake on JAFNPP site by Environmental Station H (Onsite) (RETS #9)	E, N.E.	5000'
D	27	North fence inside JAFNPP by lake shore, North of Screenhouse	E, N.E.	1100'
D	28	Light pole inside JAFNPP across from road intersection, North of Screenhouse	E, N.E.	3600'
D	29	North fence inside JAFNPP North of Screenhouse	E, N.E.	3400'
D	30	Northwest corner of fence at lake shore	E, N.E.	2800'
D	47	NE shoreline inside JAFNPP on fence near Sewage Treatment Plant	E, N.E.	4100'
E	19	East boundary JAFNPP Site Pole #9	E	6900'
E	24	Along dirt access road by I Onsite Environmental Station	E	4500'



LIST OF ENVIRONMENTAL TLDs

<u>Sector</u>	<u>Station ID #</u>	<u>Location Description</u>	<u>Direction from Site</u>	<u>Distance from Site</u>
E	78	JAF, E. of E. Old Laydown Area, on tree (RETS #10)	E	4900'
E	106	Shoreline Cove, E. of NMP-1, tree of W. edge	E	6900'
E	107	Shoreline Cove, E. of NMP-1, tree 30' S. of #106	E	6900'
F	25	Along Lake Road (1600') 0.3 mile east of JAFNPP access road by J Onsite Environmental Station	E, S.E.	4700'
F	26	250' south of Lake Road, near JAFNPP access road by K Onsite Environmental Station	E, S.E.	3525'
G	4	Along NMP-2 access road 50' from Lake Road	S.E.	2800'
G	5	Along south side of Lake Road 800' west of materials access road	S.E.	2300'
J	6	Along south side of Lake Road 500' east of NMP-1 access road	S	2000'
K	7	0.5 mile north of Lake Road at NMPC meteorological tower by G Onsite Environmental Station (RETS #17)	S, S.E.	2100'
N	18	Energy Information Center picnic area north shore on lamp post (RETS #18)	W	1600'
N	103	Energy Information Center Garage Road, lamp post	W	1600'
Q	31	North fence NMP-1	N, N.W.	00'
Q	85	Unit 1, N. Fence, N. of W. Side Screen House (RETS #19)	N, N.W.	400'

ATTACHMENT 12

Page 3 of 5

LIST OF ENVIRONMENTAL TLDs

<u>Sector</u>	<u>Station ID #</u>	<u>Location Description</u>	<u>Direction from Site</u>	<u>Distance from Site</u>
C	8	0.3 miles West on Montario Point Road by R5 Offsite Environmental Station	N.E.	16.2 miles
D	55	Gas Substation, Route 5, West of Pulaski, New York	E, N.E.	14.0 miles
E	9	0.65 mile north of the entrance to Selkirk Shores State Park on Route 3	E	11.7 miles
E	88	Hickory Grove Rd., pole #2 0.6 miles N, of Rt. 1 (RETS #22)	E	4.8 miles
E	98	Lake Rd., pole #145, 0.15 miles E. of Rt. 29 (RETS #37)	E	1.2 miles
E	99	NMP Rd., 0.4 miles N. of Lake Rd. Environmental Station R1	E	1.8 miles
F	10	0.75 mile west on County Route 64 in Village of Mexico by Environmental Station D2	E, S.E.	9.1 miles
F	56	Route 104 New Haven School S.E. corner on pole (RETS #35)	E, S.E.	5.3 miles
F	54	Liberty Street & County Route 16 - Mexico High School on pole	E, S.E.	9.8 miles
F	79	Co. Rt. 29 S, pole #63, 0.2 miles S. of Lake Rd. (RETS #11)	E, S.E.	1.3 miles
F	89	Leavitt Rd., pole #16, 0.4 miles S. of Rt. 1 (RETS #23)	E, S.E.	5.0 miles
F	100	Rt. 29 and Lake Rd., Env. Sta. R2	E, S.E.	1.5 miles
F	104	Parkhurst Rd. Pole #148 A, 0.1 mi. S. of Lake Rd.	E, S.E.	1.6 miles
F	108	Lake Rd., Pole #143, 300 ft. East of Rt. 29, south side	E, S.E.	1.0 miles

LIST OF ENVIRONMENTAL TLDs

<u>Sector</u>	<u>Station ID #</u>	<u>Location Description</u>	<u>Direction from Site</u>	<u>Distance from Site</u>
F	109	Lake Rd., tree 300 ft. East of Rt. 29, north side	E, S.E.	1.0 miles
G	80	Co. Rt. 29 S, pole #54, 0.7 miles S. Lake Rd. (RETS #12)	S.E.	1.8 miles
G	90	Rt. 104, pole #300, 150 ft. E. of Keefe Rd. (RETS #24)	S.E.	4.4 miles
G	97	Rt. 29, pole #50, 200 ft. N. of Miner Rd. by Env. Sta. R4 (RETS #34)	S.E.	1.5 miles
G	101	Rt. 29, 0.7 miles S. of Lake Rd., Env. Sta. R3	S.E.	1.5 miles
H	11	250' east of O'Connor Road on County Route 4 by E Offsite Environmental Station	S, S.E.	7.3 miles
H	49	Phoenix, N.Y. - Control (Connolly Res.) (RETS #30)	S, S.E.	19.6 miles
H	81	Miner Rd., pole #16, 0.5 miles W. of Rt. 29 (RETS #13)	S, S.E.	1.7 miles
H	91	Rt. 51A, pole #59, 0.8 miles W of Rt. 51 (RETS #25)	S, S.E.	5.0 miles
J	12	0.55 mile East of County Route 53 on Dutch Ridge Road by F Offsite Env. Sta.	S	7.8 miles
J	53	Broadwell & Chestnut Street Fulton High School	S	14.8 miles
J	82	Miner Rd. pole #1 1/2, 1.1 miles W. of Rt. 29 (RETS #14)	S	1.7 miles
J	92	Maiden Lane Rd., power pole, 0.6 miles S of Rt. 104 (RETS #26)	S	4.5 miles
J	102	EOF/EL, Fulton Airport	S	11.5 miles
J	112	EOF/EL, Fulton Airport	S	11.5 miles

LIST OF ENVIRONMENTAL TLDs

<u>Sector</u>	<u>Station ID #</u>	<u>Location Description</u>	<u>Direction from Site</u>	<u>Distance from Site</u>
K	83	Lakeview Rd., Birch Tree, 0.45 miles N. of Miner Rd. (RETS #15)	S, S.W.	1.2 miles
K	93	Rt. 53, pole #1-1, 120 ft. S of Rt. 104 (RETS #27)	S, S.W.	4.5 miles
K	105	Lakeview Rd. Pole #6125, 0.6 miles S. of Lake Rd.	S, S.W.	1.4 miles
K	96	Creamery Rd. 0.3 miles S. of Middle Rd., pole 1 ½ (RETS #32)	S, S.W.	3.7 miles
L	13	100' N. of Seneca Street on St. Paul's Cemetery by G Environmental Station	S.W.	5.3 miles
L	14	DeMass Road, S.W. Oswego - Control (RETS #31)	S.W.	12.4 miles
L	52	East 12th & Cayuga Streets Fitzhugh Elementary School	S.W.	6.0 miles
L	58	Corner of County Route 1 and Alcan (E. of E. Entrance)	S.W.	2.9 miles
L	84	Lakeview Rd. N. pole #6117, 200 ft. N. of Lake Rd. (RETS #16)	S.W.	1.1 miles
L	94	Rt. 1, pole #82, 250 ft. E. of Kocher Rd. (RETS #28)	S.W.	4.6 miles
L	111	J. Blasiak residence, Sterling, NY	S.W.	17 miles
M	51	Oswego Steam Station, North end of west fence inside property (W. Liberty & Bronson Streets)	W, S.W.	7.7 miles
M	95	Lakeshore Camp Site from Alcan W. Access Rd., pole #21, 1.2 miles N. of Rt. 1 (RETS #29)	W, S.W.	3.5 miles
M	15	Pole #66, northeast section of Bible Camp (RETS #36)	S.W.	1.0 mile

LIST OF EMERGENCY TLDs

<u>Sector</u>	<u>Station ID #</u>	<u>Location Description</u>	<u>Direction from Site</u>	<u>Distance from Site</u>
A	E-1	Directly north of NMP-1 SCREENHOUSE	N	375'
D	E-2	30' south of NMP-2 Stone & Webster Warehouse by D1 Onsite Environmental Station	E, N.E.	2500'
D	E-3	Directly north of JAFNPP Screen- house on fence by Environmental TLD #29	E	3350'
D	E-4	On solitary Black Walnut tree 250' south of H Onsite Environ- mental Station directly on Dynamite Road	E, N.E.	4800'
E	E-39	NMP Rd. 0.4 miles N. of Lake Rd.	E	1.8 miles
E	E-24	Hickory Grove at end of Hickory Grove Drive on NM pole #43	E	5.0 miles
E	E-30	Intersection of Route 104B and Rt. 16 (Texas) on pole #153	E	8.0 miles
F	E-5	250' south of Lake Road near JAFNPP access road in woods by K Onsite Environmental Station	E, S.E.	3525'
F	E-19	Nine Mile Pole #58 1/3 the distance between Lake Road and Miner Road on west side of Route 29	E, S.E.	1.3 miles
F	E-20	Pole #141-1, N.W. corner of intersection of County Route 29 and Lake Road (Co. Rt. 1-A)	E, S.E.	1.2 miles
F	E-25	Nine Mile Point Rd. halfway between Lake Rd. and Miner Rd. on pole #30	E, S.E.	2.2 miles
F	E-38	0.75 mile W of Rt. 104 on Co. Rt. 64 in Village of Mexico	E, SE	9.1 miles
G	E-13	Nine Mile Pole #46, S.E. corner of intersection of Miner Road and County Route 29	S.E.	1.8 miles

LIST OF EMERGENCY TLDs

<u>Sector</u>	<u>Station ID #</u>	<u>Location Description</u>	<u>Direction from Site</u>	<u>Distance from Site</u>
G	E-16	10' high on first metal tower south of K Onsite Environmental Station	S.E.	1.0 mile
G	E-17	Nine Mile Pole #15, first pole on Miner Road and JAFNPP transmission line	S.E.	1.3 miles
G	E-18	Nine Mile Pole #53, 2/3 distance between Lake and Miner Roads on west side of Route 29	S.E.	1.6 miles
G	E-26	Intersection of Nine Mile Point Road and County Route 1 on NM pole #112	S.E.	2.8 miles
G	E-37	Sundown Rd. off Co. Rt. 35. Pole for Siren #31.	S.E.	9.5 miles
H	E-12	Nine Mile Pole #5, half-way between the two transmission lines on Miner Road	S, S.E.	1.5 miles
H	E-6	On wood pole, 10' high, half-way between 5 & 6 Onsite Environmental TLD Stations on Lake Road, 100' from NMP-1 access road	S	2000'
H	E-27	Intersection of County Route 1 and County Route 29 on NM pole #216	S, S.E.	2.6 miles
H	E-36	250' E. of O'Connor Rd. on Co. Rt. 4 near Env. Station	S, S.E.	7.3 miles
J	E-10	North side of Nine Mile Pole #20 on the west side of the intersection of Miner and Lakeview Roads	S	1.5 miles
J	E-11	Nine Mile Pole #1 by intersection of Miner Road and Nine Mile Point's transmission line road	S	1.5 miles
J	E-14	Second set of NMP-1's metal transmission poles from Miner Road, N.W. Street	S	1.1 miles

LIST OF EMERGENCY TLDs

<u>Sector</u>	<u>Station ID #</u>	<u>Location Description</u>	<u>Direction from Site</u>	<u>Distance from Site</u>
J	E-15	On Stone & Webster Road adjacent to transmission lines on 5th set of metal transmission poles south of NMP-1 switchyard	S	0.7 mile
J	E-28	Intersection of Route 104 and Maiden Lane Road on NM pole #159	S	4.0 miles
J	E-35	March Road between Route 481 and Kingdom Road. Pole #18.	S	9.5 miles
K	E-7	Energy Information Center access road, 125' before 20 mph sign on west side of the road, 6' up on the first Black Walnut tree	S, S.W.	2100'
K	E-23	Met Tower on Env. Sta G Pole	S, S.W.	2100'
K	E-9	15' high on Nine Mile Pole #90, S.E. corner of intersection of Lakeview and Lake Road (Co. Rt. 1-A)	S, S.W.	1.0 mile
K	E-29	Intersection of Middle Road and Creamery Road on pole #28	S, S.W.	3.4 miles
K	E-31	Intersection of County Route 4 and County Route 53 on pole #49	S, S.W.	5.9 miles
K	E-34	Benson Ave. (Co. Rt. 25) Minetto in front of Minetto Fire Barn, across from siren pole.	S, S.W.	9.3 miles
L	E-8	N.E. corner of Ontario Bible School, on access road, 8' high on pole #64, 200' from the lake	S.W.	0.8 mile
L	E-32	Off Kocher Rd. E. on Middle Rd. NiMo Pole #15.	S.W.	4.0 miles
L	E-33	Route 104 West and Fred Haynes Blvd., across from Siren Pole #104	S.W.	8.9 miles
N/A	E-21 & 22 (controls)	NMPNS Administration Building in Lead Pig	N/A	N/A

## SURVEY TEAM COMMUNICATION FORM

Page 1 of 1

Date \_\_\_\_\_ Team Number \_\_\_\_\_ Team Leader/TLD Number \_\_\_\_\_  
Team Member/TLD Number \_\_\_\_\_

Assigned Radio Channel \_\_\_\_\_ Dispatch Center Phone Number \_\_\_\_\_

[illegible]



## Page 1 of 1

Assigned Radio Channel \_\_\_\_\_ Dispatch Center Phone Number \_\_\_\_\_

[illegible]

RADIOLOGICAL ENVIRONMENTAL SAMPLING PROGRAM

The following table should be used in determining environmental samples and quantity to be sampled:

Medium Sampled	Each Sample	Analysis	Quantity/Vol. Preferred Sample Location
Air-Particulate	27,000 ft <sup>3</sup> ** 25 ft <sup>3</sup> *	Beta, gamma	Downwind from site
Air-Iodine	27,000 ft <sup>3</sup> ** 25 ft <sup>3</sup> *	Beta, gamma	Downwind from site
Water-Lake, pond Stream (Note 1)	1 gallon	Beta, gamma Isotope	10 downstream from site 2 upstream from site for control
Water-Tap (Note 2)	1 gallon	Gamma Isotope	2 from control 15 mi. from site 4 downwind from site
Soil (Note 3)	500 ml.	Gamma Isotope	2 from control 15 mi. from site 6 downwind from site
Vegetation/Grass (Note 3)	1 kg.	Gamma Isotope	2 from control 15 mi. from site 6 downwind from site
Milk (Note 4)	1 gallon	I-131, Cs-137, Sr-90	2 from control 15 mi. from site*** 5-10 downwind from site***
Snow	1 ft <sup>2</sup>	Gamma Isotope	2 from control 15 mi. from site*** 5-10 downwind from site***

\* Downwind Survey Team Air Sample

\*\* Normal Environmental Monitoring Program Air Sample

\*\*\* If Owner Cooperation Available

Note 1: Upstream samples should be a minimum of 5 mi. upstream of plant outfall.

Note 2: Control samples should come from least prevalent wind direction from township (municipal) water supply.

Note 3: Control samples should come from least prevalent wind direction at nearest TLD site for sample accountability. Downwind samples should be taken at/near TLD locations for sample accountability.

Note 4: Milk samples should be raw, untreated milk from dairies in least prevalent wind direction for control purposes.

NOT ALL SAMPLES ON THIS TABLE NEED TO BE COLLECTED DURING EMERGENCY CONDITIONS, HOWEVER, A REPRESENTATIVE SAMPLE SHOULD BE TAKEN ON THOSE LISTED AS TIME PERMITS.

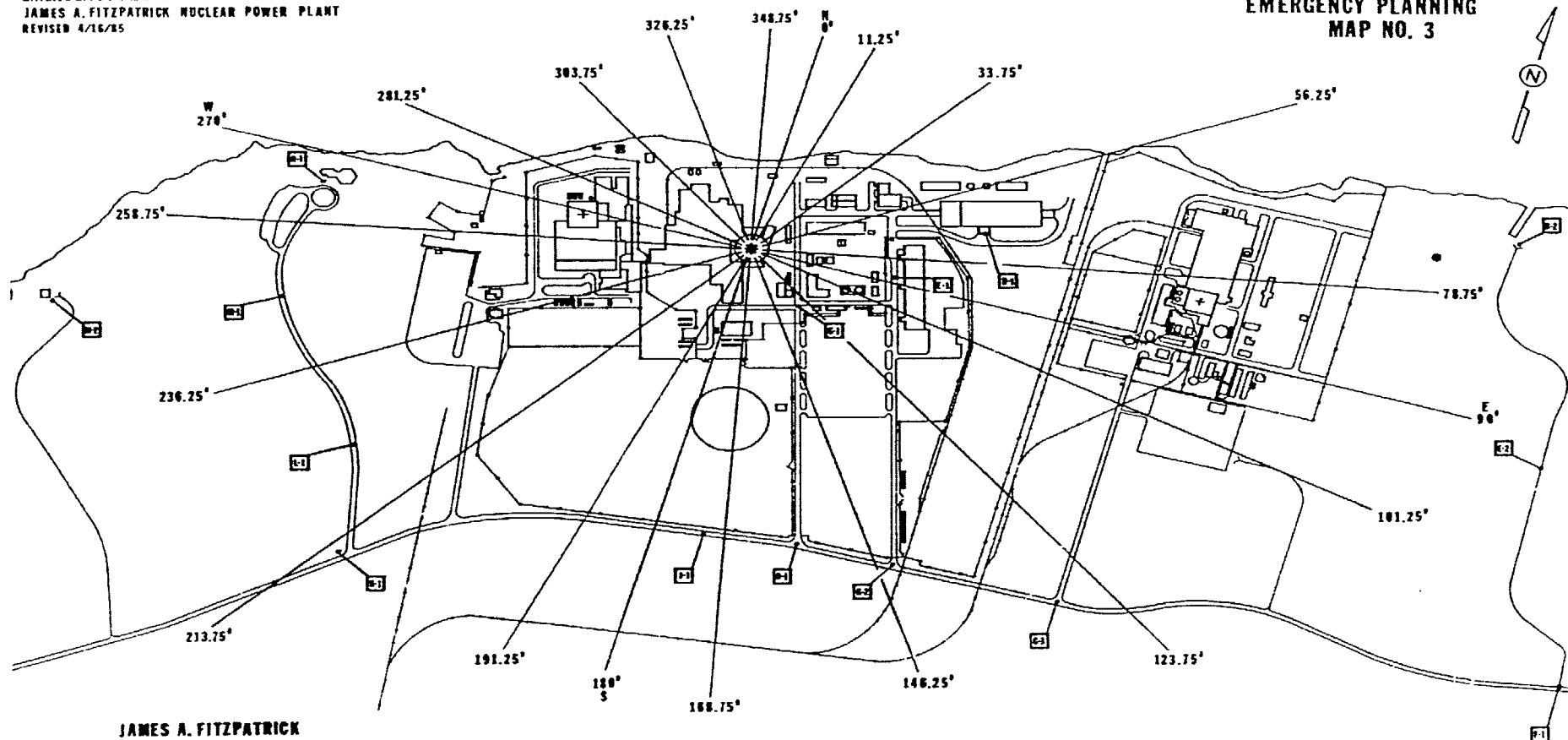
This program may be used for a relatively long period of time after the emergency has been terminated such that all required samples have been collected, prepared, and analyzed.

ATTACHMENT 17  
NINE MILE POINT AREA SURVEY MAP  
*Lake Ontario*

Page 1 of 1

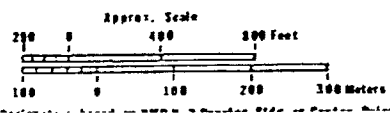
EMERGENCY PLANNING SITE PLAN  
JAMES A. FITZPATRICK NUCLEAR POWER PLANT  
REVISED 4/16/85

EMERGENCY PLANNING  
MAP NO. 3



JAMES A. FITZPATRICK  
NUCLEAR POWER PLANT  
NINE MILE POINT AREA SURVEY MAP

[E-1] Survey/Sampling Location  
180° Radon Angle from North



EMERGENCY PLAN IMPLEMENTING PROCEDURES/VOLUME 3  
UPDATE LIST

CONTROLLED COPY # **34**

Date of Issue: July 21, 2000

Procedure Number	Procedure Title	Revision Number	Date of Last Review	Use of Procedure
N/A	TABLE OF CONTENTS	REV. 23	12/98	N/A
EAP-26	PLANT DATA ACQUISITION SYSTEM ACCESS	REV. 11	02/98	Informational
EAP-27	ESTIMATION OF POPULATION DOSE WITHIN 10 MILE EMERGENCY PLANNING ZONE	REV. 9	02/98	Informational
EAP-28	EMERGENCY RESPONSE DATA SYSTEM (ERDS) ACTIVATION	REV. 6	07/00	Reference
EAP-29	EOF VENTILATION ISOLATION DURING AN EMERGENCY	REV. 5	02/98	Informational
EAP-30	EMERGENCY TERMINATION AND TRANSITION TO RECOVERY*	REV. 0	12/98	Informational
EAP-31	RECOVERY MANAGER*	REV. 0	12/98	Informational
EAP-32	RECOVERY SUPPORT GROUP*	REV. 3	07/00	Informational
EAP-33	DEVELOPMENT OF A RECOVERY ACTION PLAN*	REV. 0	12/98	Informational
EAP-34	ACCEPTANCE OF ENVIRONMENTAL SAMPLES AT THE EOF/EL DURING AN EMERGENCY	REV. 3	02/98	Informational
EAP-35	EOF TLD ISSUANCE DURING AN EMERGENCY	REV. 6	02/98	Informational
EAP-36	ENVIRONMENTAL LABORATORY USE DURING AN EMERGENCY	REV. 4	02/98	Informational
EAP-37	SECURITY OF THE EOF AND EL DURING DRILLS, EXERCISES AND ACTUAL EVENTS	REV. 5	02/98	Informational
EAP-39	DELETED (02/95)			
EAP-40	DELETED (02/98)			
EAP-41	DELETED (12/85)			
EAP-42	OBTAINING METEOROLOGICAL DATA	REV. 13	04/99	Informational
EAP-43	EMERGENCY FACILITIES LONG TERM STAFFING	REV. 48	04/00	Informational
EAP-44	CORE DAMAGE ESTIMATION	REV. 4	02/98	Informational
EAP-45	EMERGENCY RESPONSE DATA SYSTEM (ERDS) CONFIGURATION CONTROL PROGRAM	REV. 5	02/98	Informational
SAP-1	MAINTAINING EMERGENCY PREPAREDNESS	REV. 15	02/00	Informational
SAP-2	EMERGENCY EQUIPMENT INVENTORY	REV. 29	07/00	Reference
SAP-3	EMERGENCY COMMUNICATIONS TESTING	REV. 68	06/00	Reference

EMERGENCY PLAN IMPLEMENTING PROCEDURES/VOLUME 3  
UPDATE LIST

Date of Issue: July 21, 2000

Procedure Number	Procedure Title	Revision Number	Date of Last Review	Use of Procedure
SAP-4	NYS/OSWEGO COUNTY EMERGENCY PREPAREDNESS PHOTO IDENTIFICATION CARDS	REV. 8	03/00	Informational
SAP-5	DELETED (3/98)			
SAP-6	DRILL/EXERCISE CONDUCT	REV. 15	02/00	Informational
SAP-7	MONTHLY SURVEILLANCE PROCEDURE FOR ON-CALL EMPLOYEES	REV. 34	02/98	Informational
SAP-8	PROMPT NOTIFICATION SYSTEM FAILURE/SIREN SYSTEM FALSE ACTIVATION	REV. 10	02/98	Informational
SAP-9	DELETED (02/94)			
SAP-10	METEOROLOGICAL MONITORING SYSTEM SURVEILLANCE	REV. 9	07/00	Informational
SAP-11	EOF DOCUMENT CONTROL	REV. 9	07/99	Informational
SAP-13	EOF SECURITY AND FIRE ALARM SYSTEMS DURING NORMAL OPERATIONS	REV. 3	03/98	Informational
SAP-14	DELETED (02/95)			
SAP-15	DELETED (11/92)			
SAP-16	UTILIZING EPIC IDT TERMINALS FROM DESTINY SYSTEM	REV. 3	02/98	Informational
SAP-17	EMERGENCY RESPONSE DATA SYSTEM (ERDS) QUARTERLY TESTING	REV. 7	07/00	Continuous
SAP-19	SEVERE WEATHER	REV. 3	03/98	Informational
SAP-20	EMERGENCY PLAN ASSIGNMENTS	REV. 17	06/99	Informational
SAP-21	PLACEMENT, TESTING AND OPERATION OF WIRELESS TELEPHONE EQUIPMENT IN PLANT ENVIRONS	REV. 2	10/98	Informational
SAP-22	EMERGENCY PLANNING PROGRAM SELF ASSESSMENT	REV. 1	10/98	Informational

NEW YORK POWER AUTHORITY  
JAMES A. FITZPATRICK NUCLEAR POWER PLANT  
EMERGENCY PLAN IMPLEMENTING PROCEDURE

EMERGENCY RESPONSE DATA SYSTEM (ERDS) ACTIVATION\*  
EAP-28  
REVISION 6

REVIEWED BY: PLANT OPERATING REVIEW COMMITTEE

MEETING NO. N/A

DATE: N/A

APPROVED BY: *[Signature]*  
RESPONSIBLE PROCEDURE OWNER

DATE: 7/14/00

EFFECTIVE DATE: July 21, 2000

FIRST ISSUE ☐

FULL REVISION ☒

LIMITED REVISION ☐

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*****	*****
* ADMINISTRATIVE *	CONTROLLED COPY # <u>34</u>
*****	

PERIODIC REVIEW DUE DATE: July 2005

REVISION SUMMARY SHEET

REV. NO.

- 6      • Full revision to reflect installation of new ERDS computer system, and new operational functions.

## TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
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## 1.0 PURPOSE

The Emergency Response Data System (ERDS) program transmits a specially formatted set of plant parameters to the NRC Operations Center in Bethesda, MD. The information from ERDS improves the NRC's capability to fulfill its response role during an emergency. It supplements the voice transmission over the Emergency Notification System (ENS).

## 2.0 REFERENCES

### 2.1 Performance References

None

### 2.2 Developmental References

2.2.1 NUREG-1394, Emergency Response Data System

2.2.2 NRC Generic Letter 89-15, dated 8/21/89

## 3.0 INITIATING EVENTS

3.1 An Alert, Site Area Emergency or General Emergency classification has been declared in accordance with IAP-2, CLASSIFICATION OF EMERGENCY CONDITIONS\*, and

3.2 Activation of the Technical Support Center in accordance with EAP-14.1, TECHNICAL SUPPORT CENTER ACTIVATION\*, has begun.

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#### 4.0 PROCEDURE

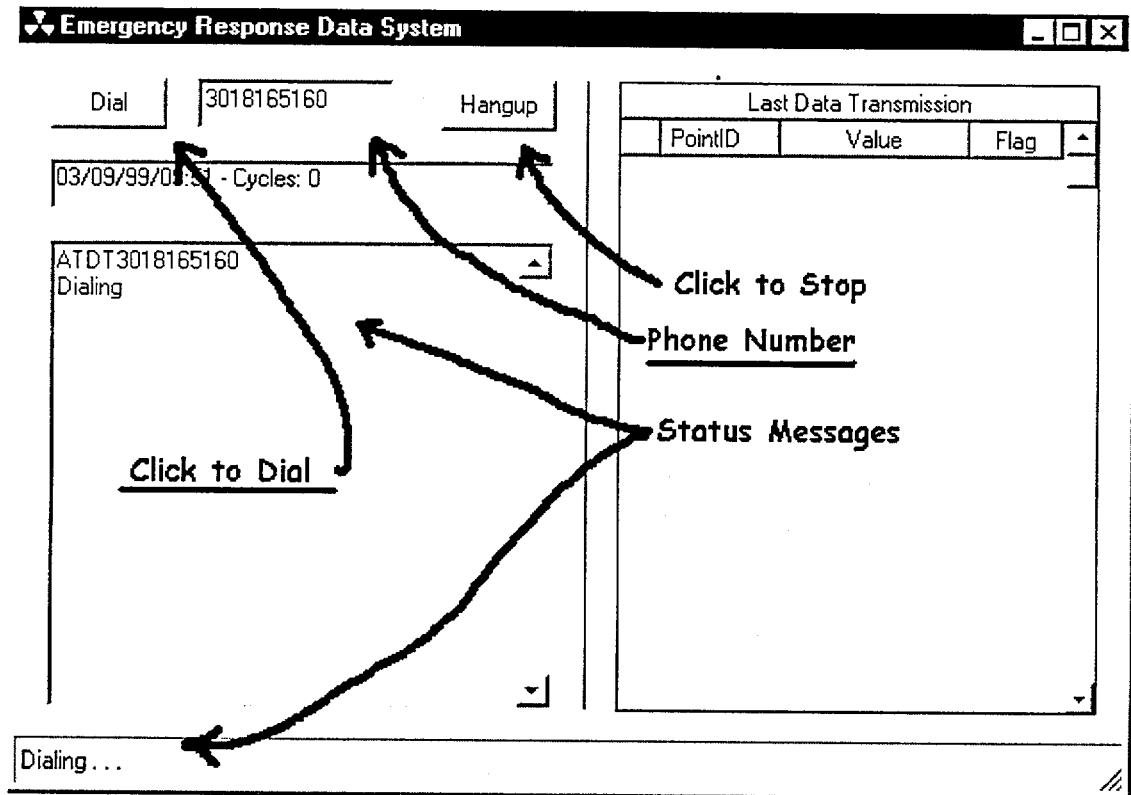
4.1 The ERDS program resides on the ERDS computer (jafnt005) located in the Technical Support Center MDAS Computer Room. The data link to the NRC must be manually established at an Alert or higher emergency classification during TSC activation, and then periodically monitored. Start Procedure Here

4.2 Start the ERDS data link by doing the following:

4.2.1 Check the physical connections to ensure the Codex 2234 modem is ON. The modem must be connected to COM2 of the ERDS computer and to the Emergency Telecommunications System (ETS) NRC phone line.

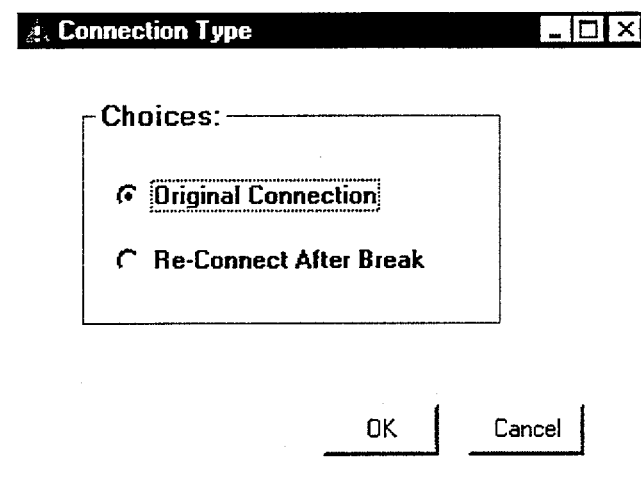
4.2.2 Check the information flow to ensure that the EPIC and MDAS data links are functioning. On to the ERDS computer console, click on the "PlantNT" icon. Select the "NYS Part-III Data Sheet" from the File menu. Verify the EPIC date/time stamp updates at one-minute intervals. Return to the File Menu and select the "15-Minute Met Data" option. Verify the time and date stamp for the MDAS weather data is within 15 minutes of real time. Exit from this program. If either the EPIC data or MDAS data are not updating, proceed to section 4.3.4 of this procedure.

- 4.2.3 Log on to the ERDS computer console. Double click the "nERDS.exe" icon. The following screen will appear; note the various functional parts:



Upon clicking the "Dial" button, the telephone number in the white box will be dialed to the NRC host computer in Bethesda, MD.

- 4.2.4 Before the number will be dialed, the operator must choose the connect mode. The following screen will appear:



- 4.2.5 Next, there is a login/handshake procedure that must be completed before transmission of data. The ERDS program will display progress messages on the screen during this handshake procedure. A normal sequence would appear as follows:

FZ1\*LINK\*04/02/99/13:10:00\ [SENT BY NERDS]

FZ1\*ACCEPTED\ [RECEIVED FROM NRC]

FZ1\*INITIATE\ [RECEIVED FROM NRC]

At this point, the ERDS data link is established. Plant parameters will be sent every 60 seconds to the NRC host computer.

## 4.2.5 (Cont.)

IF this does NOT happen, proceed to section 4.3.

Normal data transmission appears as:

Emergency Response Data System																																																											
Dial	2085249268	Hangup																																																									
04/02/99/11:36 - Cycles: 2																																																											
FZ1*04/02/99/11:36\3376*9.987E+01*0*3448 *1.916E+00*0*3347*8.278E+05*0*3108*2.006E +02*0*3313*1.089E+01*0*1128*0.000E+00*0*3 097*1.039E+03*0*1257*0.000E+00*0*3452*5.6 30E-01*0*3453*7.810E-01*0*1152*0.000E+00* 0*1151*0.000E+00*0*1263*2.200E+01*3*3341* 5.473E+00*0*3342*1.178E+02*0*3343*1.726E +01*0*3344*2.356E+01*0*3345*8.637E+00*0*3 370*4.180E-01*0*3373*2.260E+00*0*3374*6.8 50E-01*0*3346*0.000E+00*0*3355*1.413E+01* 0*3377*8.321E+00*0*3449*3.130E+03*0*3093* 1.804E+00*0*3316*1.093E+02*0*3380*7.810E +01*0*3102*1.391E+01*0*3450*0.000E+00*0*3 451*2.285E+00*0*3386*2.802E+02*0*WS30*4. 250E+00*0*WD30*2.629E+02*0*ST30*1.250E +01*0*WS200*1.000E+03*0*WD200*1.000E+0 3*0*ST200*1.000E+03*0*0000033479\																																																											
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- 4.2.6 The Plant Computer Operator shall periodically monitor the ERDS console to ensure the ERDS data link is functioning. After transmission of each data packet a message will be displayed on the screen with the time, date and number of data packet sent. The Computer Operator should ensure that the time and date are close to actual time and that the cycle number is incrementing each minute.
- 4.2.7 Periodically monitor ERDS parameters by viewing the plant status screens. Step 4.2.2 of this procedure describes these options. Also, monitor the LED status lights on the Codex modem.
- 4.2.8 When required, terminate the ERDS program by clicking the "Hangup" button and then closing the

---

program (click the X box in the upper right corner).

4.3 Failure to establish the ERDS data link may be due to:

- 4.3.1 Loss of communications. If the telephone link is lost after a successful connection, then reconnect using the "Re-connect after break" described in step 4.2.5. This command reconnects the program during the handshake. This informs the NRC computer that the data to be sent is part of a previous data set.
- 4.3.2 NRC computer is busy. The JAF program may dial the correct number but the NRC host computer may be busy. Contact the NRC duty officer in Bethesda to determine the cause of the problem. If the solution is to use another phone number, then follow the procedure steps in section 4.2.3. It is possible that the NRC host computer is down or offline and periodic attempts to connect will have to be made.
- 4.3.3 NRC host computer refuses program initiation. If a message appears on the ERDS console saying "Timeout, remote host failed to respond within 1 minute" or "Remote host sent REFUSED", then the telephone connection is made properly but the NRC computer is refusing to start the data link. The JAF program will restart the handshake sequence every 60 seconds. Contact the NRC duty officer to determine the cause of the problem.

A. Main: 301-816-5100

B. Backup1: 301-951-0550

C. Backup2: 301-415-0550

- 4.3.4 Loss of source data. The JAF program transmits plant parameters from the EPIC and MDAS systems. If either system fails or if communication from these systems fail, then the last data set from either system will continue to be sent to the NRC computer. If this happens, the NRC duty officer must be notified immediately. It is beyond the scope of this document to list all conditions that result in data loss. All of these problems must be resolved by the Computer Operator.

## 5.0 ATTACHMENTS

None

NEW YORK POWER AUTHORITY  
JAMES A. FITZPATRICK NUCLEAR POWER PLANT  
EMERGENCY PLAN IMPLEMENTING PROCEDURE

RECOVERY SUPPORT GROUP MANAGER\*  
EAP-32  
REVISION 3

REVIEWED BY: PLANT OPERATING REVIEW COMMITTEE

MEETING NO. N/A

DATE: N/A

APPROVED BY:

*M. Amadio*  
RESPONSIBLE PROCEDURE OWNER

DATE: 7/18/00

EFFECTIVE DATE:

July 21, 2000

FIRST ISSUE ☐

FULL REVISION ☐

LIMITED REVISION ☒

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PERIODIC REVIEW DUE DATE: DECEMBER 2003



## REVISION SUMMARY SHEET

REV. NO.	CHANGE AND REASON FOR CHANGE
3	<ul style="list-style-type: none"><li>• Updated phone numbers on Attachment 2, Recovery Support Group Corporate Call List.</li></ul>
2	<ul style="list-style-type: none"><li>• Updated phone numbers on Attachment 2, Recovery Support Group Corporate Call List</li><li>• Removed GMSS approval signature line from cover sheet as per AP-02.04.</li></ul>
1	<ul style="list-style-type: none"><li>• Updated phone numbers on Attachment 2, Recovery Support Group Corporate Call List.</li></ul>
0	<ul style="list-style-type: none"><li>• New procedure</li></ul>

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## 1.0 PURPOSE

The purpose of this procedure is to provide instruction to the Recovery Support Group Manager. The Recovery Support Group Manager coordinates requests for personnel, equipment and materials, and support services.

This procedure is implemented initially by the Nuclear Generation Duty Officer (NGDO) in the event of an emergency at the plant which requires notification of the Recovery Manager and the coordination of corporate resources during the EMERGENCY PHASE, and/or activation of the Recovery Organization during the RECOVERY PHASE. The Recovery Manager may designate other personnel to act as Recovery Support Group Manager.

The Recovery Support Group Manager is responsible for:

- Notifying the Recovery Manager of emergencies and keeping him informed of the emergency status.
- Coordinating requests for corporate support.
- Coordinating requests for other personnel, equipment and materials, and support services.
- Notifying and coordinating requests for assistance with offsite support organizations as directed by the Recovery Manager.

## 2.0 REFERENCES

### 2.1 Performance References

- 2.1.1 Appendix F, Typical Support Companies and Organizations\*
- 2.1.2 Section 9, Recovery\*
- 2.1.3 EAP-33, Development of a Recovery Action Plan\*

### 2.2 Developmental References

NONE

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### 3.0 INITIATING EVENTS

3.1 Emergency conditions have been declared as per IAP-2, Classification of Emergency Conditions\* (FOR STEPS 4.1 AND 4.2).

3.2 Emergency conditions have been controlled and/or corrected and the emergency terminated as per IAP-2, Classification of Emergency Conditions\*, and entry into the Recovery phase is required (FOR STEPS 4.3 AND 4.4).

### 4.0 PROCEDURE

#### 4.1 Notifications

4.1.1 Receive notification of the emergency via NYPA staff.

4.1.2 Confirm the notification with plant staff and ascertain the situation.

4.1.3 Notify the Recovery Manager or alternate of the emergency.

#### 4.2 Activation

4.2.1 Establish and maintain communications with the Recovery Manager during the EMERGENCY PHASE.

4.2.2 Coordinate corporate resources through normal channels to support the plant during the EMERGENCY PHASE as requested by the Recovery Manager.

4.2.3 Notify offsite support organizations to support the plant during the EMERGENCY PHASE as requested by the Recovery Manager. Organizations which may be called upon to provide assistance are listed in JAFNPP Appendix F.

4.2.4 IF RECOVERY OPERATIONS ARE REQUIRED, report to the designated Recovery Center (EOF or other location).

#### 4.3 Recovery Operations

4.3.1 Assist the Recovery Manager to determine corporate capabilities required for Recovery Support Group (see JAFNPP Plan section 9).

- 4.3.2 Coordinate corporate resources to support Recovery operations. A Recovery Support Group Call List is included in this procedure as Attachment 2.
- 4.3.3 Coordinate requests for other personnel, equipment and materials, and support services through the Recovery Support Group organization.
- 4.3.4 Coordinate support from offsite support organizations. Organizations which may be called upon to provide assistance are listed in JAFNPP Emergency Plan Appendix F.
- 4.3.5 Develop a shift-rotation schedule for the Recovery Support Group as needed.
- 4.3.6 Coordinate the implementation of tasks appropriate to the Recovery Support Group in EAP-33, Development of a Recovery Action Plan\*.
- 4.3.7 Continue to update the Recovery Manager on the status of Recovery Support Group operations.
- 4.3.8 Monitor progress of Recovery Support Group and Recovery Support Group tasks in the Recovery Action Plan and provide assistance/coordination where appropriate.
- 4.3.9 Assist the Recovery Manager to determine resource requirements for Recovery functions considering the following:
  - A. Need for additional personnel required for long-term recovery efforts
  - B. Need for offsite technical assistance
  - C. Need for supplies, equipment, parts, and other material.

#### 4.4 Terminate Recovery Operations

- 4.4.1 Ensure the completion or dispositioning of Recovery Support Group tasks outlined in the Recovery Action Plan.

4.4.2      Ensure that appropriate offsite  
             agencies/organizations have been notified of the  
             termination of Recovery.

4.4.3      Ensure that all Recovery Support Group actions  
             have been documented.

5.0    **ATTACHMENTS**

1.    Recovery Support Group Manager Initial Actions
2.    Recovery Support Group Corporate Call List

RECOVERY SUPPORT GROUP MANAGER INITIAL ACTIONS

When the NGDO is contacted, telephone plant Security to determine the nature of the emergency (Call the Control Room if Security cannot provide the information).

JAF - call 315-349-6414/6422 (Security)  
315-349-6664 (Control Room)

1. Your initial contact will be with either site Security or the Control Room. Be prepared to copy down the pertinent information given to you. Use the appropriate PART I form.
2. Contact the Recovery Manager or alternate for further instructions. Refer to the Recovery Support Group Call List for Recovery Manager notification information.
3. If requested by the Recovery Manager, contact corporate departments for support. Refer to the Recovery Support Group Call List for corporate department notification information.
4. If requested by the Recovery Manager, notify offsite support organizations for support. Refer to JAFNPP, EAP-1.1, Offsite Notifications\*, for offsite support organization notification information.
5. If requested by the Recovery Manager, report to the designated Recovery Center (EOF or other location) and implement EAP-32, Recovery Support Group Manager\*.

## ATTACHMENT 2

Page 1 of 2

RECOVERY SUPPORT GROUP CORPORATE CALL LIST

TITLE	NAME	HOME PHONE	OFFICE	PAGER NO.
Recovery Manager	H. Salmon* W. Josiger* J. Kelly* T. Dougherty*	(914) 734-7690 (845) 279-9331 (845) 947-2095 (718) 961-1907	287-3812 681-6846 681-6275 681-6800	718-3812 718-6846 718-6275 718-6800
Radiological Support	G. Re** J. Furfaro*	(914) 739-5694 (845) 528-2497	681-6801 681-6232	718-6801 718-6232
Engineering Programs Support	R. Penny* J. Goldstein	(914) 741-5001 (914) 248-5688	681-6288 681-6285	718-6288 718-6285
Licensing Support	C. Faison* P. Kokolakis*	(914) 793-1262 (212) 724-6141	681-6306 681-6254	718-6306 718-6254
Fuel Management Support	G. Grochowski* G. Rorke* (JAF) G. Canavan*(IP3)	(914) 232-7159 (516) 767-7587 (212) 989-0449	681-6838 681-6839 681-6845	718-6838 718-6839 718-6845
Engineering Support	H. Gilmartin* W. Lemanski*	(631) 549-0582 (845) 783-9834	681-6427 681-6572	718-6427 718-6572
Public Relations Support	S. Shoenholz* C. Patrick*	(201) 568-7565 (201) 568-2799+ (845) 528-7835 (845) 528-3557+	212-468-6313 681-6247	711-6313 718-6247
Legal Affairs Support	G. Goldstein J. Lyons	(212) 734-1749 (631) 757-5851	212-468-6131 212-468-6135	N/A
Administration and Logistics Support	T. Demers L. Vigars	(212) 737-9092 (845) 297-2543	681-6398 681-6907	N/A
Financial Support	J. Reagan E. DeGennaro	(845) 429-7921 (203) 933-8031	681-6768 287-3353	N/A



## ATTACHMENT 2

Page 2 of 2

RECOVERY SUPPORT GROUP CORPORATE CALL LIST

TITLE	NAME	HOME	OFFICE	PAGER NO.
Insurance Mgmt. Support	D. Sacco C. Powell	(201) 493-2357 (914) 684-6175	287-3922 287-3916	N/A
Contract Admin. Support	J. Franko J. Morrison	(203) 438-1045 (914) 332-4881	681-6380 681-6379	N/A
Offsite Security Support	J. Hahn* M. Leonard	(914) 693-4566 (914) 739-8977	681-6462 681-6445	718-6462
Quality Assurance Support	R. Patch* D. Bell	(914) 328-5362 (845) 628-8582	681-6497 681-6540	718-6497

\* Issued NYPA Pager (Access through 1-800-283-2255 or 1-800-436-2732)

+ Alt. Unlisted Home Phone

## OTHER NOTIFICATIONS

To be notified by Recovery Manager

TITLE	NAME	HOME	OFFICE	OTHER
President & Chief Operating Officer	E. Zeltmann	(518) 383-1969 (518) 523-8720	287-3636 (WPO) (212) 468-6006 (NYO)  Albany (518) 433-6719	Cellular Phone (518) 369-5600  Car Phone (518) 369-5700
Chief Nuclear Officer	J. Knubel	(845) 526-3442 (845) 526-2670	681-6950 (WPO)	Cellular Phone (914) 646-5925  Pager (800) 734-1865

NEW YORK POWER AUTHORITY  
JAMES A. FITZPATRICK NUCLEAR POWER PLANT  
EMERGENCY PLAN IMPLEMENTING PROCEDURE

METEOROLOGICAL MONITORING SYSTEM SURVEILLANCE\*  
SAP-10  
REVISION 9

REVIEWED BY: PLANT OPERATING REVIEW COMMITTEE

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APPROVED BY:

M. Carlucci  
RESPONSIBLE PROCEDURE OWNER

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July 21, 2000

FIRST ISSUE ☐

FULL REVISION ☐

LIMITED REVISION ☒

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PERIODIC REVIEW DUE DATE: JANUARY 2003

## REVISION SUMMARY SHEET

## REV. NO.

- 9            Add requirements for checking the MDAS PC output to ERDS.
- Added :meteorological data acquisition system operability" in section 1.0
- In section 4.6.6, added information regarding JAF newtorked computers.
- In section 4.17, added steps to facilitate comparison of the MDAS PC data with the JAF computer output.
- On attachment 1, page 2 of 2, added MDAS PC checkoffs.
- Changed RES to Rad Protection, editorial change only.
- 8            Deleted GM-SUPPORT SERVICES signature line from the cover page per AP-02.04.
- Add asterisks at the end of Sections 2.1.1 and 2.2.1 to show TSR procedure titles.
- Reorganized the log on procedure for the LA-100, Niagara Mohawk changed their computer ethics.
- Editorial corrections in the following Sections: 4.8, 4.9, and 4.15.
- 7            Step numbers on Att. 1 were corrected, incorrect abbreviations were deleted (Steps 4.12.2, 4.13.3).
- Step numbers were corrected in text (Steps 4.11.4, 4.13.1, 4.14.1, 4.15.1, and 4.16) and directions to record information on Att. 1 was added to Steps 4.14.3 and 4.15.5.

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1. <u>METEOROLOGICAL MONITORING SYSTEM SURVEILLANCE</u> ...	14

## 1.0 PURPOSE

The purpose of this procedure is to provide for a quarterly operation and inspection check on the meteorological recorders located in the Control Room and Technical Support Center with computer output from the Niagara Mohawk Meteorological System. In addition, the strip chart paper shall be replaced as needed (at approximately two-week intervals). This procedure also provides for a routine surveillance of the emergency dose assessment operability and Meteorological Data Acquisition System (MDAS) operability.

## 2.0 REFERENCES

### 2.1 Performance References

2.1.1 EAP-42, OBTAINING METEOROLOGICAL DATA\*

### 2.2 Developmental References

2.2.1 IMP-17.10, METEOROLOGY STRIP CHART RECORDER  
ROUTINE MAINTENANCE AND CALIBRATION\*

2.2.2 Operations and Maintenance Manual for the NMPC-NYPA Meteorological Data Acquisition System

2.2.3 Texas Instrument Inc. TIGRAPH 200 Graphic Display Installation and Operation Maintenance Manual, DOCNO: 6211809, Access #006211809

2.2.4 Regulatory Guide 1.23

## 3.0 INITIATING EVENTS

None

## 4.0 PROCEDURE

4.1 The Radiation Protection (RP) Manager shall assign a RP Technician to perform this surveillance which includes:

4.1.1 Evaluate the quality and validity of the data being gathered.

4.1.2 Assess the status of the site instrumentation and equipment.

4.1.3 Document and distribute all significant information for use in historical analysis.

- 
- 4.1.4 Determine if unscheduled maintenance is required.
  - 4.2 Direct comparisons of each recorder channel and 17 MDAS-PC-3 data are to be performed on a quarterly basis with computer output obtained the same day.
  - 4.3 Data will be collected from recorders in both the Control Room and the Technical Support Center. Assure recorders are operating on Eastern Standard Time.
  - 4.4 In addition, the purpose of this procedure is to assess and document the "usability" of the meteorological data on the recorders as well as the computer. Through this procedure, analysis of the data will yield pertinent information on whether data received is good, bad, suspect, or not available.
  - 4.5 Attachment 1, Meteorological Monitoring System Surveillance, must be completed to document the comparison of data.
  - 4.6 In addition, record any pertinent information concerning the recorder data as well as the computer data on the Attachment 1, Meteorological Monitoring System Surveillance. Record all occurrences at each recorder location which may be of significance to later analysis of the data or in the operational and maintenance history of any equipment used in this analysis. Record items such as the following:
    - 4.6.1 Paper replacement, repairs and/or calibrations of all equipment.
    - 4.6.2 A description of "NO" entries (indicating no data, or abnormal operation) on Attachment 1, Meteorological Monitoring System Surveillance and action taken, if any.
    - 4.6.3 A description of conditions pertinent to "suspect" or "invalid" data.
    - 4.6.4 A description of abnormal conditions.
    - 4.6.5 A brief summary of other tasks performed.
    - 4.6.6 Information which may be helpful or necessary in analyzing meteorological conditions and instrument performance (i.e. Met. tower instruments out of service due to high winds, lightning, etc.).

4.7 From a JAF Networked Computer print the Meteorological Data Screen from the Plant Parameters selection. This will provide the required data for compression to the Meteorological Computer printout.

4.8 From the TSC, perform the following:

Obtain a meteorological computer printout from the Niagara Mohawk system. (The printout gives average hourly values from all towers for the past 24 hours.) To do this, perform the following steps:

**NOTE:** Should the LA-100 stall or otherwise lock up during operation, Ctrl-Y will reset the system.

4.8.1 Place switch on Black Box Modem labeled LA-100 to the NiMo position.

4.8.2 Press the "RETURN" key on the LA-100 terminal.

4.8.3 Output will be the Nine Mile Point/JAF Meteorological Menu.

4.8.4 Utilize the username and password located on the terminal.

4.8.5 Enter one (1), for Emergency Dispersion Report.

4.8.6 During printout, the "RETURN" key may have to be pressed several times in order to continue the printing process.

4.8.7 This will be followed by the Nine Mile Point/JAF Meteorological menu.

4.9 Once the meteorological computer printouts have been obtained, become familiar with their contents and format. Note which digits correctly represent the parameter of interest and which numbers represent column dividers on the printout.

4.10 The printouts provide twenty-four "hour" averages; locate where each hour is represented (standard time) in the first column headed by "TIME AVG."

- 4.11 Choose the hour average on the printout that will be utilized for all data comparisons, preferably an average two to three hours earlier than the time of performing this procedure. Make sure there is sufficient valid data across the chosen row. Enter the date and averaged hour chosen on Attachment 1, noting the computer is on Eastern Standard Time (EST). Use this same hour average for both the TSC and Control Room surveillance.

**NOTE:** Make sure the same hour average contains valid data in the second half of the printout for the "JAF/Backup Tower Parameters" and "Inland Tower Parameters."

- 4.12 The following steps apply to each recorder inspected (start with recorder D, then G, J and K in the Control Room and then repeat for the Technical Support Center):

4.12.1 To remove the paper cartridge it is necessary to open the plastic recorder window by depressing the lock on the top of the recorder, press the RECORD/STANDBY switch in the upper left-hand corner to STANDBY (STB), and remove the paper cartridge by lifting the paper cartridge upward and outward.

4.12.2 To replace the strip chart paper, it is necessary to remove the paper supply roller (the roller may or may not have a spool of paper) from the paper cartridge by pressing outward on the supply retainer spring and then releasing the roller from the spring. If there is still paper on the supply roller, remove the paper and extract the cardboard tube.

**NOTE:** A diagram of this entire operation is located on the front of the cartridge assembly.

Lay the used paper tube and supply roller on a nearby surface for future use. Remove the take-up roller from the paper cartridge by slowly pushing outward on the take-up retainer spring and releasing the roller from the spring. Extract the spent paper and its cardboard roll from the take-up reel. Label the date, time, recorder letter and location, and measured parameters on the spent roll. This strip chart data shall be used for the completion of the surveillance and then attached to Attachment 1. Take the used cardboard tube that was on the supply roller and insert it into the take-up roller.



Install the take-up roller (now contains the cardboard tube) into the paper cartridge by slowly pressing the take-up spring retainer outward and inserting the roller into the proper location of the paper cartridge. Pick up the supply roller and insert the new roll of paper onto the roller (Paper Stock #96-170999). Install the supply roller (now contains a new roll of paper) into the paper cartridge by slowly pressing the supply retainer spring outward and inserting the roller in its proper location. Pull some paper from the supply spool and insert it between the paper cartridge spring locking pin bar and the black rubber platen. Insert the paper under the clear plastic paper tear-off window and over the front of the paper cartridge. Pull approximately eight inches of paper through the paper tear-off window. Position the paper between the take-up roller and the base of the cartridge. Attach a small piece of tape to the end of the paper and take-up tube. Remove the slack between the two paper spools by manually turning the take-up roller in the take-up direction.

- 4.12.3 To insert the paper cartridge, it is necessary to position the paper cartridge inward at the top of the recorder and push upward to insert the bottom hinge pin guides onto the recorder hinge pins. Push MENU selector to print status. The unit should be printing the status chart and self-test printouts. Put the STANDBY/RECORD switch in the RECORD position.
- 4.12.4 Initial, date and record the strip chart ID and location on the strip chart roll just removed. Inspect the paper for print quality. Record whether steps 4.11.1 through 4.11.4 have been performed (i.e. strip chart paper replaced).
- 4.12.5 Record whether date and time are being printed properly and the time corresponds to Eastern Standard Time.

**NOTE:** Recorder speed is set at one inch/hour, and time is documented on the strip chart once every two hours.

- 4.12.6 Inspect the scales utilized on the recorders to see if they are labeled A and B on recorders D, G and J. In the case of Recorder K, there are four scales (A, B, C and D) all of which are not readily visible.
- 4.12.7 Record any abnormal conditions on Attachment 1 under Remarks/Comments. If corrective action must be taken, record the problem and refer to the Maintenance and Calibration Procedures for the TIGRAPH 100 (F-IMP 17.10).
- 4.12.8 Locate the time frame on the strip chart that is being evaluated.

**NOTE:** It is important to understand the hour average being utilized on the computer printout is the average calculated for the previous 60 minutes and is represented in Eastern Standard Time. For example, the 60 minute average for 10:00 is the average from 9:00 to 10:00 EST.

4.13 The following steps facilitate comparison of Recorder "D" Data with the JAF computer output;

- 4.13.1 Average both wind speed and wind direction on the strip chart on Recorder D for the hour being scrutinized. Record the derived values on Attachment 1.
- 4.13.2 Locate and record the 200 ft. wind speed average for the hour being evaluated on the computer printout. Take care in recording the value (either a 1 or 2 digit number).
- 4.13.3 Locate and record the 200 ft. wind direction average for the hour on the computer printout using the same care.
- 4.13.4 Compare computer with derived values. Wind direction values should agree within  $\pm 10.0^\circ$  of arc, and wind speed values should agree within  $\pm 3.0$  MPH. If the values do not fall within the acceptable ranges, record a "NO" on Attachment 1 and note deviation.

4.14 The following steps facilitate comparison of Recorder "G" Data with JAF computer output;

4.14.1 Repeat 4.12.1 through 4.12.8, for recorder "G."

4.14.2 Average both wind speed and wind direction on the strip chart on Recorder G for the hour being evaluated. Record the derived values.

4.14.3 Locate and record the 90 ft. wind speed average for the hour chosen on the computer printout.

**NOTE:** Ensure same 60 minute timeframe data is being compared.

4.14.4 Locate and record 90 ft. wind direction average for the hour chosen on computer printout.

4.14.5 Compare computer printout with recorder derived values. Wind direction values should agree within  $\pm 10.0^\circ$  of arc and wind speed values should agree within  $\pm 3.0$  MPH. If the values do not fall within the stated ranges record a "NO" on Attachment 1 and note deviation.

4.15 The following steps facilitate comparison of Recorder "J" Data with JAF computer output;

4.15.1 Repeat 4.12.1 through 4.12.8, for Recorder "J."

4.15.2 Note the position of the toggle switch (located between Recorders J and K) for Recorder J. Record either the 30 or 100 ft. switch position on Attachment 1.

4.15.3 Average and record both wind speed and direction on the strip chart on Recorder J. Record derived values on Attachment 1.

4.15.4 Based upon the toggle switch mode locate and record the corresponding wind speed on the computer printout: either the 30 ft. wind speed or the 100 ft. wind speed for the 60 minute average utilized for data comparison.

4.15.5 Based upon toggle switch position, locate and record corresponding wind direction values (either the 30 ft. value or the 100 ft. value.

- 4.15.6 Compare computer printout with recorder derived values. Wind direction values should agree within  $\pm 10.0^\circ$  of arc and wind speed values should agree within  $\pm 3.0$  MPH. If the values do not fall within the aforementioned ranges record a "NO" on Attachment 1 and note deviation.
- 4.16 The following steps facilitate comparison of Recorder "K" Data with JAF computer output;
- 4.16.1 Repeat 4.12.1 through 4.12.8, for Recorder "K."
- 4.16.2 Record the switch position and the respective measured parameter on Attachment 1.
- 4.16.3 Carefully inspect the strip chart for Recorder K. Note the various scales; all four scales will not be visible (unless the paper has been extracted for paper replacement). The Channel A scale represents the temperature scale, B represents the scale for the 30-100 ft. temperature difference, C represents the scale for the 30-200 ft. temperature difference, and D represents the scale for sigma theta (wind variation).
- NOTE:** The traces for each channel are labeled. Channels B and C scales are equivalent. Read the values directly.
- 4.16.4 When deriving and averaging each parameter, it may be difficult to compare the trace to the appropriate scale, under these conditions it is advised the paper cartridge from Recorder K be removed, followed by an inspection of the scales marked at an earlier time. To perform this, turn the RECORD/STANDBY switch in the upper left-hand corner of the recorder to STANDBY (STB). This prevents printhead damage. Remove the paper cartridge. Reverse the takeup roll so paper can be drawn out for inspection.
- 4.16.5 Locate all four scales (A-D) and carefully average each parameter for the hour chosen for evaluation. Record the temperature (Channel A), the 30-100 ft. temperature difference (Channel B), 30-200 ft. temperature difference (Channel C), and sigma theta for the appropriate switch position (Channel D) on Attachment 1.

- 
- 4.16.6 Record the temperature, the temperature difference between 30 and 100 ft. and the temperature difference between 30 and 200 ft. on the printout for the hour chosen. When recording temperature difference, record to the nearest tenth.
- 4.16.7 Note switch position for Recorder K (A, B, C or D). This switch determines which sigma theta (or wind direction variation) is being measured: "A" denotes the 200 ft. wind direction variation, "B" denotes the 100 ft. wind direction variation, "C" denotes the 30 ft. wind variation and "D" represents the JAF backup wind direction variation at 90 ft.
- 4.16.8 Based upon the switch mode, locate the appropriate wind direction variation from the computer printout for the 60 minute average being utilized for the data comparison. Record the value to the nearest tenth.
- 4.16.9 Compare computer printerout with recorder derived values; temperature values should agree within  $\pm 2.0^{\circ}\text{F}$ . Both temperature difference values should agree with their respective computer values within  $\pm 1.0^{\circ}\text{F}$ . Sigma theta (or wind direction variation) values should agree within  $\pm 2^{\circ}$  of arc. If any of the values do not agree, record a "NO" on Attachment 1 and note deviation.
- 4.17 Repeat 4.12 through 4.16 for the recorders in the Technical Support Center.

4.18 The following steps facilitate comparison of the MDAS PC data with the JAF Computer printout;

4.18.1 Record the following meteorological parameters from the MDAS PC (Plant Parameter Meteorological Data) in attachment 1:

- A. 200 ft. Wind Speed
- B. 200 ft. Wind Direction
- C. 200 ft. Sigma Theta
- D. 30 ft. Wind Speed
- E. 30 ft. Wind Direction
- F. 30 ft. Sigma Theta
- G. 30 ft. Absolute Temperature

4.18.2 Compare computer printout with MDAS PC values. Wind speed values should agree within  $\pm 3$  mph, wind direction values should agree within  $\pm 10^\circ$  of arc, sigma theta values should agree within  $\pm 2^\circ$  of arc and temperature should agree within  $\pm 2^\circ\text{F}$ . If any values do not agree, record a "NO" on attachment 1 and note deviation.

4.19 Attachment 1 shall be completed for the Control Room recorders, MDAS PC and Technical Support Center recorders and submitted for review and signature to the Emergency Planning Coordinator or designee.

4.20 Obtain an Emergency Meteorological Report using EDAMS (see EAP-42, Obtaining Meteorological Data\*).

4.20.1 Ensure time and date are correct (time should be within 15 minutes of real time).

4.20.2 Obtain a printout of the "Last 15 Minute Emergency Meteorological Report Data" and attach it to the surveillance.

## 5.0 ATTACHMENTS

1. METEOROLOGICAL MONITORING SYSTEM SURVEILLANCE

METEOROLOGICAL MONITORING SYSTEM SURVEILLANCE

Page 1 of

Location: Technical Support Center / Control Room (circle one)

(Step 4.11) Date and hour chosen for comparison EST (am/pm)RECORDER D

(Step 4.11.4) Strip Chart Paper Replaced YES / NO (circle one)

(Step 4.11.5) Date and Time Proper YES / NO (circle one)

(Step 4.12.2) 200 ft. Wind Speed \_\_\_\_\_

(Step 4.12.3) 200 ft. Wind Direction \_\_\_\_\_

(Step 4.12.1) Recorder D Wind Speed \_\_\_\_\_

(Step 4.12.1) Recorder D Wind Direction \_\_\_\_\_

(Step 4.12.4) Agreement Wind Speed YES / NO (circle one)

(Step 4.12.4) Agreement Wind Direction YES / NO (circle one)

Recorder Returned to Normal YES / NO (circle one)

Remarks/Comments

RECORDER G

(Step 4.11.4) Strip Chart Paper Replaced YES / NO (circle one)

(Step 4.11.5) Date and Time Proper YES / NO (circle one)

(Step 4.13.3) 90 ft. Wind Speed \_\_\_\_\_

(Step 4.13.4) 90 ft. Wind Direction \_\_\_\_\_

(Step 4.13.2) Recorder G Wind Speed \_\_\_\_\_

(Step 4.13.2) Recorder G Wind Direction \_\_\_\_\_

(Step 4.13.5) Agreement Wind Speed YES / NO (circle one)

(Step 4.13.5) Agreement Wind Direction YES / NO (circle one)

Recorder Returned to Normal YES / NO (circle one)

Remarks/Comments

**RECORDER J**

(Step 4.11.4) Strip Chart Paper Replaced YES / NO (circle one)

(Step 4.11.5) Date and Time Proper YES / NO (circle one)

(Step 4.14.2) Toggle Position \_\_\_\_\_ ft.

(Step 4.14.4) Wind Speed at \_\_\_\_\_ ft. \_\_\_\_\_

(Step 4.14.5) Wind Direction at \_\_\_\_\_ ft. \_\_\_\_\_

(Step 4.14.3) Recorder J Wind Speed \_\_\_\_\_

(Step 4.14.3) Recorder J Wind Direction \_\_\_\_\_

(Step 4.14.6) Agreement Wind Speed YES / NO (circle one)

(Step 4.14.6) Agreement Wind Direction YES / NO (circle one)

Recorder Returned to Normal YES / NO (circle one)

Remarks/Comments

**RECORDER K**

(Step 4.11.4) Strip Chart Paper Replaced YES / NO (circle one)

(Step 4.11.5) Date and Time Proper YES / NO (circle one)

(Step 4.15.6) Temperature \_\_\_\_\_ (Step 4.15.5) Recorder K Temperature \_\_\_\_\_

(Step 4.15.6) Temp. Diff. \_\_\_\_\_ (Step 4.15.5) Recorder K 30-100 ft. Temp. Diff. \_\_\_\_\_

(Step 4.15.6) Temp. Diff. \_\_\_\_\_ (Step 4.15.5) Recorder K 30-200 ft. Temp. Diff. \_\_\_\_\_

(Step 4.15.2) Switch Position \_\_\_\_\_ (Step 4.15.7) Elev. \_\_\_\_\_

(Step 4.15.8) Sigma Theta \_\_\_\_\_ (Step 4.15.7) Recorder K Sigma Theta \_\_\_\_\_

(Step 4.15.9) Agreement Temp. YES/NO (Step 4.15.9) Agreement 30-200 ft. Temp. Diff. YES/NO

(Step 4.15.9) Agreement 30-100 ft. Temp. Diff. Y/N (Step 4.15.9) Agreement Wind Var. Y/N

Recorder Returned to Normal YES / NO (circle one)

Remarks/Comments



MDAS PC

200 ft. Wind Speed	_____
200 ft. Wind Direction	_____
200 ft. Sigma Theata	_____
30 ft. Wind Speed	_____
30 ft. Wind Direction	_____
30 ft. Sigma Theata	_____
30 ft. Absolute Temperature	_____
Agreement 200 ft. Wind Speed	YES/NO (circle on)
Agreement 200 ft. Wind Direction	YES/NO (circle on)
Agreement 200 ft. Sigma Theata	YES/NO (circle on)
Agreement 30 ft. Wind Speed	YES/NO (circle on)
Agreement 30 ft. Wind Direction	YES/NO (circle on)
Agreement 30 ft. Sigma Theata	YES/NO (circle on)

## Remarks/Comments

Date: \_\_\_\_\_ Completed by: \_\_\_\_\_

Date: \_\_\_\_\_ Reviewed by: \_\_\_\_\_

NEW YORK POWER AUTHORITY  
JAMES A. FITZPATRICK NUCLEAR POWER PLANT  
EMERGENCY PLAN IMPLEMENTING PROCEDURE

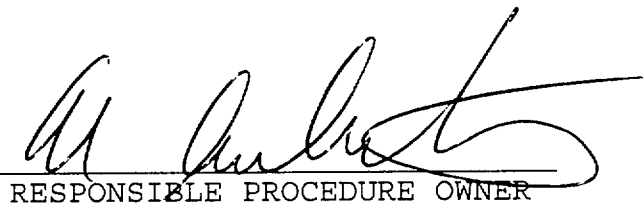
EMERGENCY RESPONSE DATA SYSTEM (ERDS) QUARTERLY TESTING\*  
SAP-17  
REVISION 7

REVIEWED BY: PLANT OPERATING REVIEW COMMITTEE

MEETING NO. N/A

DATE: N/A

APPROVED BY:

  
RESPONSIBLE PROCEDURE OWNER

DATE: 7/14/00

EFFECTIVE DATE:

July 21, 2000

FIRST ISSUE ☐

FULL REVISION ☒

LIMITED REVISION ☐

*****	*****
*	*
* INFORMATIONAL USE	* TSR
*	*
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* ADMINISTRATIVE	*
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CONTROLLED COPY # 34

PERIODIC REVIEW DUE DATE: JULY 2005

REVISION SUMMARY SHEET

REV. NO.

- 7    • Full revision to reflect installation of new ERDS computer system, and new operational functions.
- 6    • Reformat per AP-02.01. Rev. 5
- Update NRC phone numbers and contact names.

TABLE OF CONTENTS

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**1.0 PURPOSE**

This procedure establishes a method to test the operability of the Emergency Response Data System (ERDS). NRC Generic Letter 89-15 and NUREG-1394 require quarterly testing of the ERDS.

**2.0 REFERENCES**

**2.1 Performance References**

None

**2.2 Developmental References**

2.2.1      NUREG-1394, Emergency Response Data System

2.2.2      NRC Generic Letter 89-15, dated 8/21/89

**3.0 INITIATING EVENTS**

3.1 This test will be conducted on the first Tuesday of each quarter: January, April, July and October, or as otherwise scheduled by NRC Operations Center.

#### 4.0    **PROCEDURE**

4.1    The ERDS program resides on the ERDS computer (jafnt005) located in the Technical Support Center MDAS Computer Room. The data link to the NRC must be manually established, monitored for two (2) hours, then manually terminated. The IT computer operator shall complete all steps of this procedure.

4.2    Start the ERDS data link by doing the following:

4.2.1      Check the physical connections to ensure the Codex 2234 modem is ON. The modem must be connected to COM2 of the ERDS computer and to the Emergency Telecommunications System (ETS) NRC phone line.

4.2.2      Check the information flow to ensure that the EPIC and MDAS data links are functioning. On to the ERDS computer console, click on the "PlantNT" icon. Select the "NYS Part-III Data Sheet" from the File menu. Verify the EPIC date/time stamp updates at one-minute intervals. Return to the File Menu and select the "15-Minute Met Data" option. Verify the time and date stamp for the MDAS weather data is within 15 minutes of real time. Exit from this program. If either the EPIC data or MDAS data are not updating, proceed to section 4.3.4 of this procedure.

4.2.3      Contact the NRC test monitor person in Bethesda, MD at:

301-415-5015 (Computer Room),

301-297-0140 (Angela Powell-pager #),

301-415-5049 (Operations), or

301-816-5140 (Computer Room).

Determine if the NRC is ready to proceed with the test. Follow any instructions given by the test monitor person. Double check with the test monitor person to ensure that the modem dial-up number is 301-816-5160.

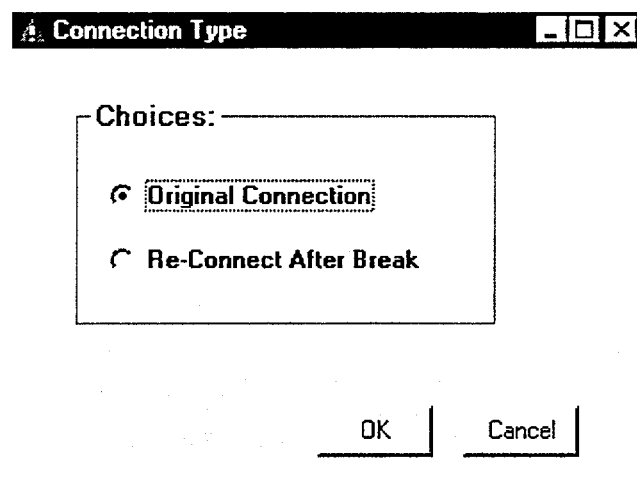
If the phone number has changed, enter it in the white box.

Log on to the ERDS computer console. Double click the "nERDS.exe" icon. The following screen will appear; note the various functional parts:

The screenshot shows the 'Emergency Response Data System' window. It features a 'Dial' button, a text box containing '3018165160', and a 'Hangup' button. Below these is a status area showing '03/09/99/01:51 - Cycles: 0' and 'ATDT3018165160 Dialing'. A 'Last Data Transmission' table is on the right, with columns for 'PointID', 'Value', and 'Flag'. At the bottom, a 'Dialing...' status bar is visible. Handwritten arrows point to the 'Dial' button (labeled 'Click to Dial'), the phone number box (labeled 'Phone Number'), the 'Hangup' button (labeled 'Click to Stop'), and the status area (labeled 'Status Messages').

Last Data Transmission		
PointID	Value	Flag

Upon clicking the "Dial" button, the telephone number in the white box will be dialed to the NRC host computer in Bethesda, MD. Before the number will be dialed, the operator must choose the connect mode. The following screen will appear:



Next, there is a logon/handshake procedure that must be completed before transmission of data. The nERDS program will display progress messages on the screen during this handshake procedure. A normal sequence would appear as:

```
FZ1*LINK*04/02/99/13:10:00\  [SENT BY NERDS]
FZ1*ACCEPTED\                [RECEIVED FROM NRC]
FZ1*INITIATE\                [RECEIVED FROM NRC]
```

At this point, the ERDS data link is established. Plant parameters will be sent every 60 seconds to the NRC host computer.

IF this does NOT happen, proceed to section 4.3.



This normal data transmission appears as:

Emergency Response Data System																																																																															
Dial	2085249268	Hangup																																																																													
04/02/99/11:36 - Cycles: 2																																																																															
FZ1*04/02/99/11:36\3376*9.987E+01*0*3448 *1.916E+00*0*3347*8.278E+05*0*3108*2.006E +02*0*3313*1.089E+01*0*1128*0.000E+00*0*3 097*1.039E+03*0*1257*0.000E+00*0*3452*5.6 30E-01*0*3453*7.810E-01*0*1152*0.000E+00* 0*1151*0.000E+00*0*1263*2.200E+01*3*3341* 5.473E+00*0*3342*1.178E+02*0*3343*1.726E +01*0*3344*2.356E+01*0*3345*8.637E+00*0*3 370*4.180E-01*0*3373*2.260E+00*0*3374*6.8 50E-01*0*3346*0.000E+00*0*3355*1.413E+01* 0*3377*8.321E+00*0*3449*3.130E+03*0*3093* 1.804E+00*0*3316*1.093E+02*0*3380*7.810E +01*0*3102*1.391E+01*0*3450*0.000E+00*0*3 451*2.285E+00*0*3386*2.802E+02*0*WS30*4. 250E+00*0*WD30*2.629E+02*0*ST30*1.250E +01*0*WS200*1.000E+03*0*WD200*1.000E+0 3*0*ST200*1.000E+03*0\0000033479\																																																																															
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3344	2.356E+01	0																																																																													
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- 4.2.4 The Plant Computer Operator shall periodically monitor the ERDS console to ensure the ERDS data link is functioning. After transmission of each data packet a message will be displayed on the screen with the time, date and number of data packet sent. The Computer Operator should ensure that the time and date are close to actual time and that the cycle number is incrementing each minute
- 4.2.5 Periodically monitor ERDS parameters by viewing options 7 and 9 from the plant status screens. Step 4.2.2 of this procedure describes these options. Also, monitor the LED status lights on the codex modem.

- 4.2.6      As part of the normal test procedure, the NRC test monitor person will deliberately drop the modem connection. This can be observed by the loss of the Carrier Detect light on the modem and a status message (Change in CD line). Click the "Hangup" button; continue at step 4.2.5 EXCEPT choose "RE-CONNECT FOLLOWING BREAK as the connect mode".
- 4.2.7      After two (2) hours of continuous transmission, or as instructed by the NRC test monitor person, terminate the ERDS program by clicking the "Hangup" button and then closing the program (click the X box in the upper right corner).
- 4.2.8      Notification. Upon completion of this procedure, notify the Emergency Planning Coordinator by either numbered memorandum or electronic mail, of the following:
- A.    Date, time and name of person conducting the testing
  - B.    Final status: Completed satisfactorily or unsatisfactorily
  - C.    If unsatisfactory, the cause(s) and date for re-testing.
- 4.3    Failure to establish the ERDS data link may be due to:
- 4.3.1    Loss of communications. If the telephone link is lost after a successful connection, then reconnect using the "Re-connect after break" described in step 4.2.5. This command reconnects the program during the handshake. This informs the NRC computer that the data to be sent is part of a previous data set.

- 4.3.2 NRC computer is busy. The JAF program may dial the correct number but the NRC host computer may be busy. Contact the NRC test monitor person at 301-415-5015, 301-415-5049, or 301-816-5140 in Bethesda to determine the cause of the problem. If the solution is to use another phone number, then follow the procedure steps in section 4.2. Remember to add the area code and do not include spaces or dashes or the prefix "1." For example, the number (800)555-1212 would be entered "8005551212." It is possible that the NRC host computer is down or offline and periodic attempts to connect will have to be made.
- 4.3.3 NRC host computer refuses program initiation. If a message appears on the ERDS console saying "Timeout, remote host failed to respond within 1 minute" or "Remote host sent REFUSED", then the telephone connection is made properly but the NRC computer is refusing to start the data link. The JAF program will restart the handshake sequence every 60 seconds. Contact the NRC test monitor person to determine the cause of the problem.
- 4.3.4 Loss of source data. The JAF program transmits plant parameters from the EPIC and MDAS systems. If either system fails or if communication from these systems fail, then the last data set from either system will continue to be sent to the NRC computer. If this happens, the NRC test monitor person must be notified immediately. It is beyond the scope of this document to list all conditions that result in data loss. All of these problems must be resolved by the Computer Operator.

## 5.0 ATTACHMENTS

None