

**NEW YORK POWER AUTHORITY
 JAMES A. FITZPATRICK NUCLEAR POWER PLANT
 P.O. BOX 41
 LYCOMING, NY 13093
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DATE: August 8, 2000
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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!

**NOTE: THESE PROCEDURES ARE
 EFFECTIVE 8/9/00**

VOLUME 2 Update List Dated August 9, 2000			
DOCUMENT	PAGES	REV. #	INITIALS/DATE
EAP-4.1	REPLACE ALL	11	

VOLUME 3 Update List Dated August 9, 2000			
DOCUMENT	PAGES	REV. #	INITIALS/DATE
EAP-42	REPLACE ALL	14	
SAP-11	REPLACE ALL	10	
SAP-20	REPLACE ALL	18	

Aφ45

**EMERGENCY PLAN IMPLEMENTING PROCEDURES/VOLUME 2
UPDATE LIST**

CONTROLLED COPY # 34

Date of Issue: August 9, 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. 11	08.00	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. 48	07/00	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**

Date of Issue: August 9, 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. 90	07/00	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

RELEASE RATE DETERMINATION*
EAP-4.1
REVISION 11

REVIEWED BY: PLANT OPERATING REVIEW COMMITTEE

MEETING NO. N/A

DATE: N/A

APPROVED BY:

M. [Signature]
RESPONSIBLE PROCEDURE OWNER

DATE: 8/3/00

EFFECTIVE DATE:

August 9, 2000

FIRST ISSUE

FULL REVISION

LIMITED REVISION

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PERIODIC REVIEW DATE: FEBRUARY 2002

REVISION SUMMARY SHEET

REV. NO.

- 11
- Removed the GM - Support Services approval line from the cover sheet per AP-02.04.
 - On attachment 1, changed Stack count from "cpm" to cps.
 - On attachment 3, added note pertaining to containment leak rate and dose rates at site boundary.
 - Corrected the Reactor Building default K factor in step 4.1.1.D and attachment 1.
 - Added brackets on Stack Release charts on pages 6, 8, and 17.
 - Section 4.1.1.D, changed wording to use existing K Factor data unless an updated one is available based upon recent Chemistry sample data.
- 10
- Added a note in section 4.1.3 and added more information for clearer instructions on use of the EDAMS for windows program.
 - Editorial Correction to Attachment 12 to correctly identify refuel accident source term to be consistent with EAP-4.
- 9
- Procedure reformatted to Microsoft Word editorial.
 - Editorial Correction to pages 13 and 14.
 - Section 4.2 reformatted to AP-02.04 (wording did not change, just format editorial change)
- 8
- Page 13, Attachment 1: Added I/NG Ratios to Attachment, Added K Ratios to Attachment for ease of use.
 - Page 14, Attachment 2: Added K Factors to Attachment for ease of use.
 - Page 15, Attachment 3: Clarified column headings for columns 6 and 7.
 - Page 24 (page 2 of 2), Attachment 11: Added 100% TS number to attachment for ease of use.
 - Periodic Review Due Date Changed to reflect AP-02.04

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1.0 PURPOSE

This procedure provides instructions for manually estimating release rates in the event of an accidental release of radioactivity to the environment.

2.0 REFERENCES**2.1 Performance References**

None

2.2 Developmental References

2.2.1 EAP-5.3, ONSITE/OFFSITE DOWNWIND SURVEYS AND ENVIRONMENTAL MONITORING*

2.2.2 EAP-42, OBTAINING METEOROLOGICAL DATA*

2.2.3 NUREG-0654, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

2.2.4 JAF FSAR Chapter 14

2.2.5 EAP-4, DOSE ASSESSMENT CALCULATIONS*

2.2.6 High Range Containment Monitor Response to Post Accident Fission Product Releases - James A. FitzPatrick Nuclear Power Plant, SL-4370, Sergeant Lundy, May 1985

3.0 INITIATING EVENTS

3.1 An emergency classification has been declared as defined in IAP-2, and

3.2 A release of radioactivity exceeding technical specifications is suspected or underway.

4.0 PROCEDURE**4.1 Release Rate Determination**

NOTE: Use Attachment 11 to calculate the percent of Tech. Spec. in order to determine if the Tech. Spec. release rate has been exceeded and for completion of the NRC Event Notification Worksheet, EAP-1.1, Attachment 6.

4.1.1 Low Range Effluent Monitor calculation

- A. Record date, time and name of individual performing calculations in upper right-hand corner of Attachment 1.
- B. Record observed gross count rate with appropriate units for the Reactor Building (RxB), Refuel Floor (RF), Radwaste (RW), Turbine Building (TB) and/or Stack. This data may be obtained from the EPIC computer. **IF** computer points are unavailable, Control Room **AND/OR** local monitors can be used for this data.

NOTE: For stack releases, it is important to determine whether any dilution fan is operating.

- C. For **Building Vent Releases**, multiply the gross count rate (cpm) by the default K factor listed in table on following page, until update K factors are available based on recent chemistry sample data.

D. For **Stack Releases**, multiply the gross count rate (cps) by the default K factor listed below, unless an updated K factor is available based on recent Chemistry sample data.

Monitor	K Factor	Normal Flow RatesBased on (cfm)
Reactor Bldg. (Pt. 3337)	3.2E-1 μCi/sec/cpm	61,000
Refuel Floor (Pt. 3338)	3.7E-1 μCi/sec/cpm	70,000
Radwaste Bldg. (Pt. 3340)	1.7E-1 μCi/sec/cpm	32,500
Turbine Bldg. (Pt. 3339)	5.6E-1 μCi/sec/cpm	107,000
Stack (Pt. 3336)	6.0E-1 μCi/sec/cps	6,600

IF flow rates differ from the Normal Flow Rates listed above, **THEN** a correction to the K factor is necessary as follows:

$$K_{(\text{corrected})} = \left[\frac{\text{New Flow Rate}}{\text{Normal Flow Rate}} \right] \times \left[K \text{ Factor}_{(\text{listed})} \right]$$

NOTE: The accuracy of ventilation flow rate indications at the low end of an instrument range should be confirmed with appropriate instrument calibration procedures.

- E. An estimate of the iodine release rate can be obtained by multiplying the I/NG ratio from a chemistry sample by the NG release rate. **IF** a chemistry sample is not available, **THEN** the iodine release rate can be estimated by multiplying a default I/NG ratio by the NG release rate. For default release rates and I/NG ratio, refer to Attachment 12.
- F. **IF** the low range effluent monitors are inoperative or off-scale, **THEN** the appropriate high range effluent monitor must be used.

4.1.2 High Range Effluent Monitor (HREM) Calculation

- A. Record date, time and individual performing calculation in upper right-hand corner of Attachment 2.
- B. Record observed dose rate for the Stack, Turbine Building (TB) and/or Radwaste (RW). This data may be obtained from the EPIC computer. **IF** computer points are unavailable, **THEN** Control Room monitors can be used for this data.

NOTE: For stack releases, it is important to determine whether any dilution fan is operating.

- C. Multiply the dose rate by the K factor listed below.

NOTE: These conversion constants are based on normal flow rates listed below. A conversion factor of 0.45 ($\mu\text{Ci/cc}$)/(mR/hr) was applied to the normal flow rate. This value is given by General Electric and is based on the monitor response to Xe-133.

HREM	K FACTOR	NORMAL FLOW RATES (cfm)*
STACK		
One SGT train operating	1.40 (Ci/sec)/(mR/hr)	based on 6,600
One SGT train and one stack dilution fan operating	2.54 (Ci/sec)/(mR/hr)	based on 12,000
TURBINE BLDG	22.6 (Ci/sec)/(mR/hr)	based on 107,000
RADWASTE BLDG	6.85 (Ci/sec)/(mR/hr)	based on 32,500
<p>*IF flow rates differ from the Normal Flow Rates listed above, then a correction to the K factor is necessary as follows:</p> $K_{(\text{corrected})} = \left[\frac{\text{New Flow Rate}}{\text{Normal Flow Rate}} \right] \times \left[K \text{ Factor}_{(\text{listed})} \right]$		

D. An estimate of the iodine release rate can be obtained by multiplying the I/NG ratio from a chemistry sample by the NG release rate. IF a chemistry sample is not available, the iodine release rate can be estimated by multiplying a default I/NG ratio by the NG release rate. For default release rates and I/NG ratios, refer to Attachment 12.

E. A back calculated release rate may be estimated from field survey data in lieu of or in addition to the estimate from low and high range effluent monitors.

4.1.3 Back Calculations from Downwind Survey Dose Rate Data using EDAMS

A. Start the EDAMS program and from the EDAMS icons, select "EDAMS".

NOTE: The mouse does NOT work in this DOS Sub-routine.

B. Select "Release Rate Calculations".

C. Select "James A. FitzPatrick".

D. Select "Back calculate".

E. Enter the time survey data was obtained (24-hour format).

F. Enter a number representing one of the accident types listed.

G. Enter the wind speed (mi/hr).

H. Enter "E" for elevated/stack or "G" for ground/vent release.

I. Enter the stability class (A - G).

J. Enter the three (3) foot closed window reading from the ion chamber (mR/hr).

K. Enter the downwind distance that the above reading was obtained. (Use 0.87 miles if the reading is taken at the site boundary.)

L. Hit the F9 key to calculate. Record or print the results.

4.1.4 **Release Rate Estimation Using Containment High Range Radiation Monitor Data**

- A. Record date, time and individual performing calculations in upper right-hand corner of Attachment 3.
- B. Record containment rad monitor I.D. (i.e., either 27-RE-104 A or B) in Column 1 or an average of the two.
- C. Record the containment rad monitors average reading (dose rate) or the individual monitor reading (dose rate) in Column 2. Obtain readings from EPIC.
- D. Record the time the containment rad monitor dose rate was observed in Column 3.
- E. Record the time of shutdown in Column 4.
- F. Determine the time in hours after shutdown that the containment radiation monitor reading was taken (Column 4 - Column 3) and record in Column 5.

NOTE: Ensure that credit is taken for any dilution provided to the value calculated in step 4.1.4.G prior to it entering the effluent pathway to the environment (i.e. dilution by Reactor Building volume, etc.).

G. Determine and record in Column 6 the calculated concentration in containment for the time after shutdown reading using the curves in Attachment 4 and the following core damage estimates:

Attachment 4 Location on Graph	Calculated Concentration* (Ci/cc)
Area above Case #1	5.20E-2
Area between Case #1 and Case #2	3.45E-2
Area between Case #2 and Case #3	1.09E-2
Area between Case #3 and Case #4	3.30E-4
Area between Case #4 and Case #5	1.91E-5
Area between Case #5 and Case #6	1.91E-6
Area below Case #6	Normal
*Concentrations derived using EAP-44 estimates of core inventory and a containment volume of 7.42E+9cc (i.e. drywell and torus gas space volume).	

H. Determine the expected flow rate (cc/sec) to the environment and record in Column 7. Assistance from TSC engineering staff may be necessary in determining flow rates.

I. Determine the estimated release rate by multiplying Column 6 by Column 7. Record in Column 8.

NOTE: EPIC provides release rates based on default K factors and normal flow rates.

4.1.5 Obtaining Release Rate Using EPIC

- A. Call up the Radioactivity Release Control (RRC) display on EPIC.
- B. Obtain and record release rate data from RRC display for release pathway of concern.

4.2 Default Accident Source Terms

4.2.1 Various types of design basis accidents have been analyzed and source terms estimated. Refer to Attachment 12 for estimated values.

4.2.2 In addition, source term estimates have been developed based on differing amounts of core damage for accidents resulting in leakage of activity through the drywell boundary.

- A. Attachments 5 through 10 provide correlation between stack source term estimates for given containment leak rates and containment high range radiation monitor readings.
- B. These attachments can be used to project what a release rate may be given a break in containment and containment failure imminent.
- C. These source terms are only estimates and should be input with the understanding of the assumptions used in their development.
- D. The source terms correspond to test cases in the Sergeant Lundy study "High Range Containment Monitor Response to Post Accident Fission Product Release" and are plotted on Attachments 5 through 10. These graphs are based on calculation JAF-89-003 filed in the original procedure EAP-4 master file.

4.3 Unmonitored Release

All likely release pathways are monitored. If there is a release through an unmonitored pathway, the release should be evaluated based on a source term (area monitors, process monitors, and/or local grab samples, as appropriate) or back calculations from downwind readings as described in Section 4.1.3 of this procedure.

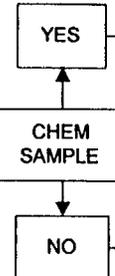
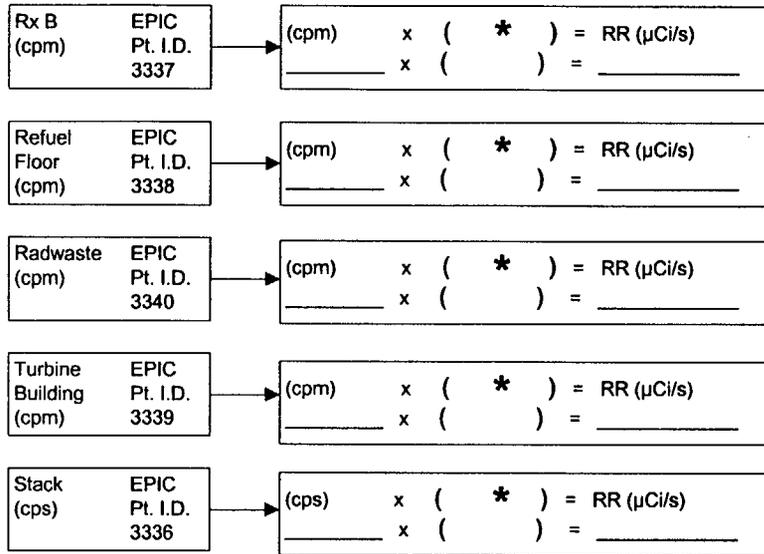
5.0 ATTACHMENTS

1. FLOW CHART TO DETERMINE RELEASE RATE FROM LOW RANGE EFFLUENT MONITORS
2. FLOW CHART TO DETERMINE RELEASE RATE FROM HIGH RANGE EFFLUENT MONITORS (HREM)
3. WORK SHEET TO DETERMINE RELEASE RATE FROM CONTAINMENT RAD MONITORS
4. FITZPATRICK HRCRM READINESS
5. 1.5% LEAKAGE SOURCE TERM ESTIMATE
6. 10% LEAKAGE SOURCE TERM ESTIMATE
7. 25% LEAKAGE SOURCE TERM ESTIMATE
8. 50% LEAKAGE SOURCE TERM ESTIMATE
9. 100% LEAKAGE SOURCE TERM ESTIMATE
10. CASTASTROPHIC LEAKEAGE SOURCE TERM ESTIMATE
11. CALCULATION METHOD FOR DETERMINING PERCENT OF TECHNICAL SPECIFICATION FOR NRC EVENT NOTIFICATION WORKSHEET
12. ANALYZED ACCIDENT TYPES

FLOW CHART TO DETERMINE RELEASE RATE FROM LOW RANGE EFFLUENT MONITORS

DATA: Rx B _____ (cpm) RF _____ (cpm) RW _____ (cpm)
 Stack _____ (cps) TB _____ (cpm)

DATE: _____
 TIME: _____
 NAME: _____



Actual Iodine Release Rate (RR)
 (Actual I/NG Ratio) x RR(NG) = RR(Iodine) Ci/sec
 _____ x _____ = _____ Ci/sec

Estimated Iodine Release Rate (RR)
 (**) x RR(NG) = RR (Iodine) Ci/sec
 _____ x _____ = _____ Ci/sec

Noble Gas Release Rate RR(NG)
 RR (µCi/sec) ÷ 1.0E6 = RR(NG) Ci/sec
 _____ ÷ 1.0E6 = _____ Ci/sec

Refer to Section 4.1.1. C and D for additional guidance

Monitor	K Factor *	Normal Flow Rates Based on (cfm)
Reactor Bldg. (Pt. 3337)	3.2E-1 µCi/sec/cpm	61,000
Refuel Floor (Pt. 3338)	3.7E-1 µCi/sec/cpm	70,000
Radwaste Bldg. (Pt. 3340)	1.7E-1 µCi/sec/cpm	32,500
Turbine Bldg. (Pt. 3339)	5.6E-1 µCi/sec/cpm	107,000
Stack (Pt. 3336)	6.0E-1 µCi/sec/cps	6,600

IF flow rates differ from the Normal Flow Rates listed above,
 THEN a correction to the K factor is necessary as follows:

$$K_{\text{(corrected)}} = \left[\frac{\text{New Flow Rate}}{\text{Normal Flow Rate}} \right] \times \left[K \text{ Factor (listed)} \right]$$

Iodine / Noble Gas Ratio	RATIOS **
Loss of Coolant Accident	2.98E-03
Control Rod Drop	9.93E-03
Refueling Accident	1.24E-04
Steam Line Break Single Phase	1.79E+01
Steam Line Break Two Phase	1.79E+01
Containment Design Basis Accident	2.13E-02

NOTE: The accuracy of ventilation flow rate indications at the low end of an instrument range should be confirmed with appropriate instrument calibration procedures.

DATA: Stack _____ (mR/hr)

TB _____ (mR/hr) RW _____ (mR/hr)

DATE: _____
 TIME: _____
 NAME: _____

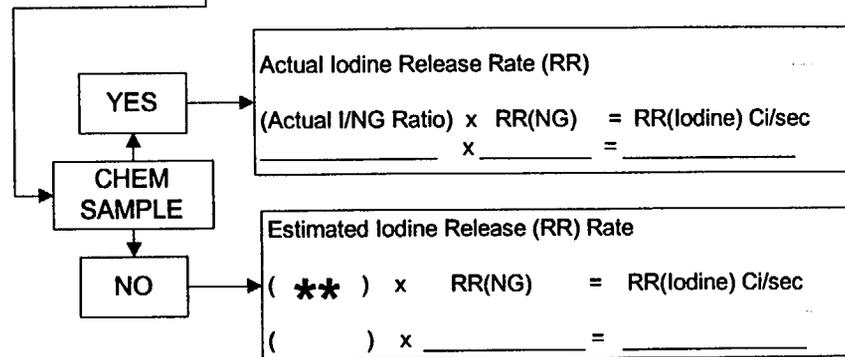
Stack (HREM) 1 SBT Train (mR/hr)	EPIC Pt. I.D. 1191	(mR/hr)	(1.40)* =	RR (Ci/s)
			(1.40) =	

Stack (HREM) 1 SBT 1 Fan (mR/hr)	EPIC Pt. I.D. 1191	(mR/hr)	(2.54)* =	RR (Ci/s)
			(2.54) =	

TB (HREM) (mR/hr)	EPIC Pt. I.D. 1194	(mR/hr)	(22.6)* =	RR (Ci/s)
			(22.6) =	

Radwaste (HREM) (mR/hr)	EPIC Pt. I.D. 1195	(mR/hr)	(6.85)* =	RR (Ci/s)
			(6.85) =	

Noble Gas Release Rate RR (NG)
(Ci/sec)



* Based on G. E. Data for monitor response under normal flow rates listed on page 7.

Iodine / Noble Gas Ratio	RATIOS **
Loss of Coolant Accident	2.98E-03
Control Rod Drop	9.93E-03
Refueling Accident	1.24E-04
Steam Line Break Single Phase	1.79E+01
Steam Line Break Two Phase	1.79E+01
Containment Design Basis Accident	2.13E-02

WORK SHEET TO DETERMINE RELEASE RATE FROM CONTAINMENT RAD MONITORS

DATE: _____

TIME: _____

NAME: _____

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6		Column 7		Column 8
Containment Rad Monitor I.D.	Containment Rad Monitor Dose Rate (R/Hr)	Time of Reading	Time of Shutdown	Time of Reading After Shutdown (Hr) ΔT	Calculated Concentration in containment (ci/cc)		Expected Flow Rate to Environment * (cc/sec)		Estimated Release Rate (Ci/sec)
						X		=	
						X		=	

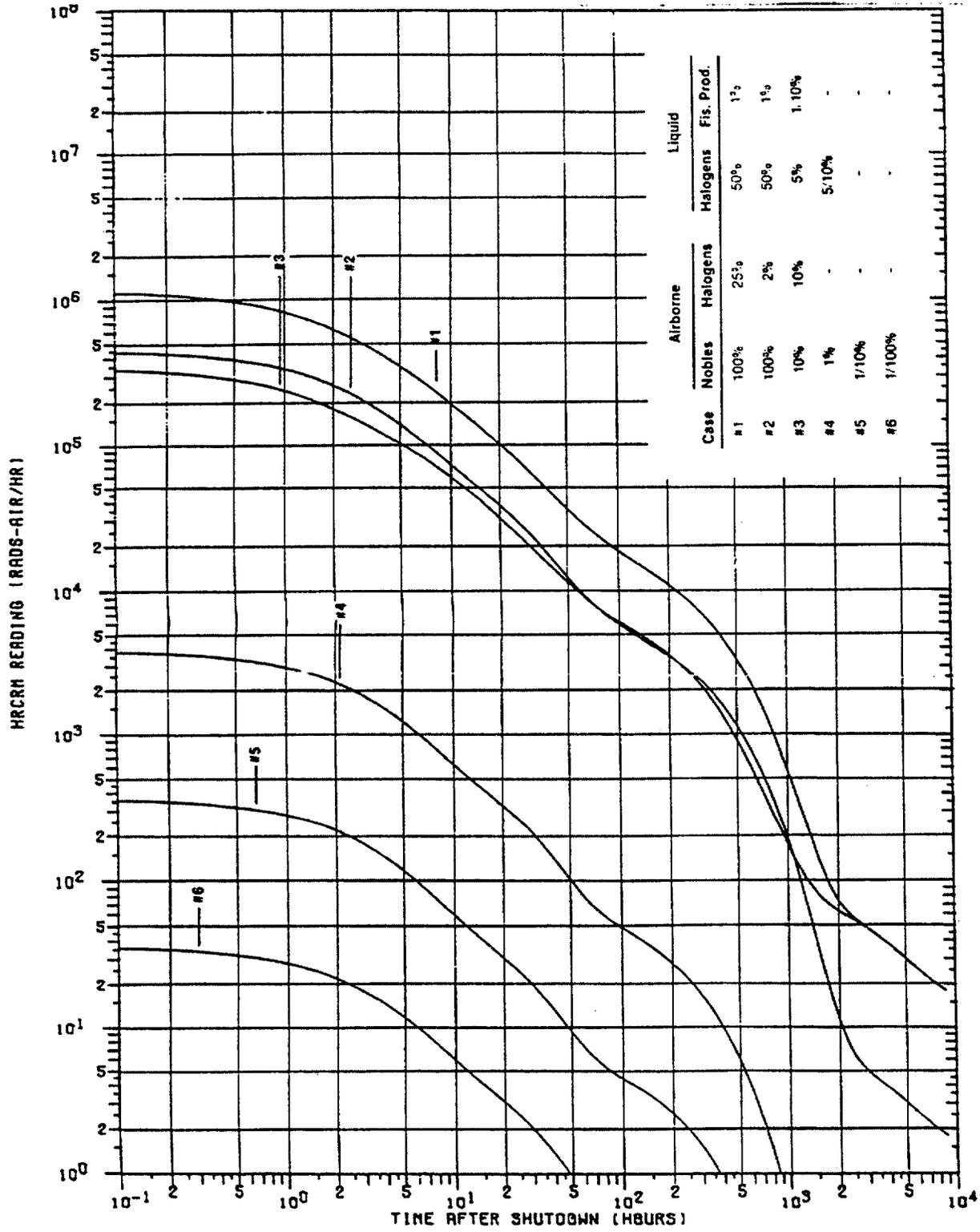
*To convert cfm to cc/sec, multiply cfm by 472 from CRC handbook of Chemistry and Physics, 64th Edition, pg. F-308.

Attachment 4 Location on Graph	Calculated Concentration* (Ci/cc)
Area above Case #1	5.20E-2
Area between Case #1 and Case #2	3.45E-2
Area between Case #2 and Case #3	1.09E-2
Area between Case #3 and Case #4	3.30E-4
Area between Case #4 and Case #5	1.91E-5
Area between Case #5 and Case #6	1.91E-6
Area below Case #6	Normal
*Concentrations derived using EAP-44 estimates of core inventory and a containment volume of 7.42E+9cc (i.e. drywell and torus gas space volume).	

Note: The Primary Containment and Reactor Building leak rate default value is 1.5% per day. The as-left Primary Containment leak rate calculated after RO-13 was approximately 1,437 scf/day.

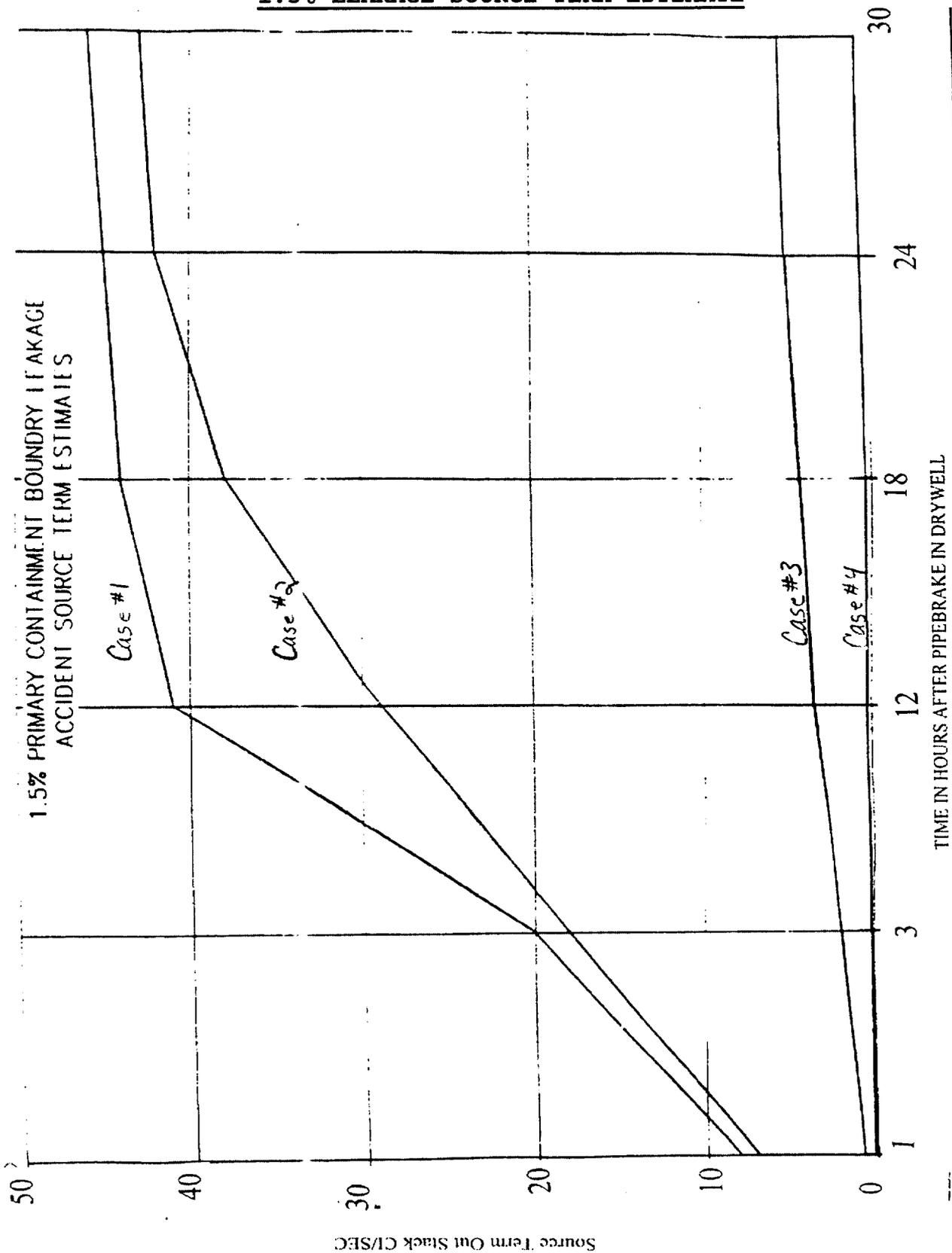
The dose rate at the site boundary for 100% of Tech Spec's, per section 3.2.a, volume 1B, is 500 mr/yr whole body from noble gas, 1,500 mr/yr for any organ from iodines and particulates with half lives greater than 8 days.

Attachment 4
FITZPATRICK HRCRM READINGS

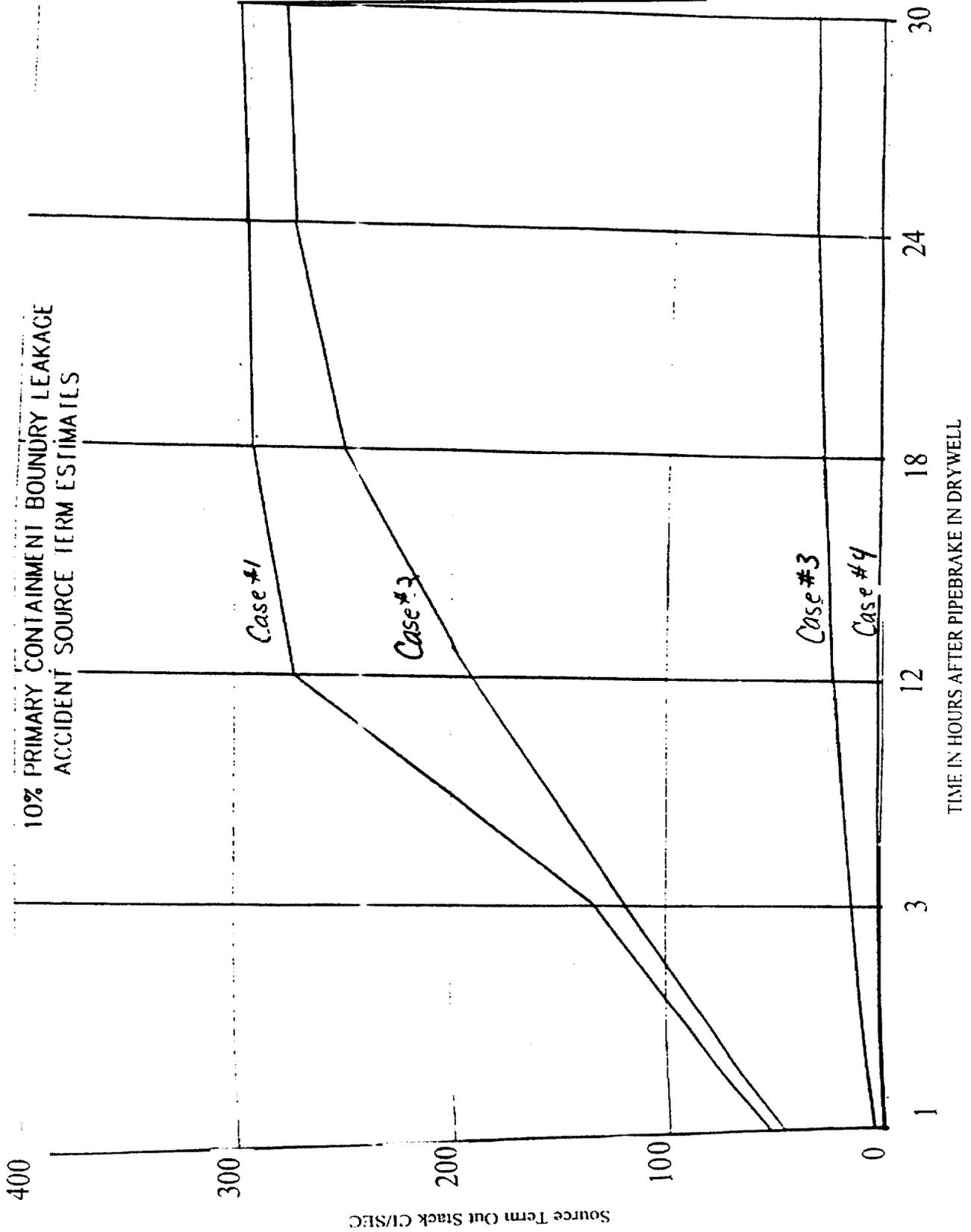


FITZPATRICK - HRCRM READINGS

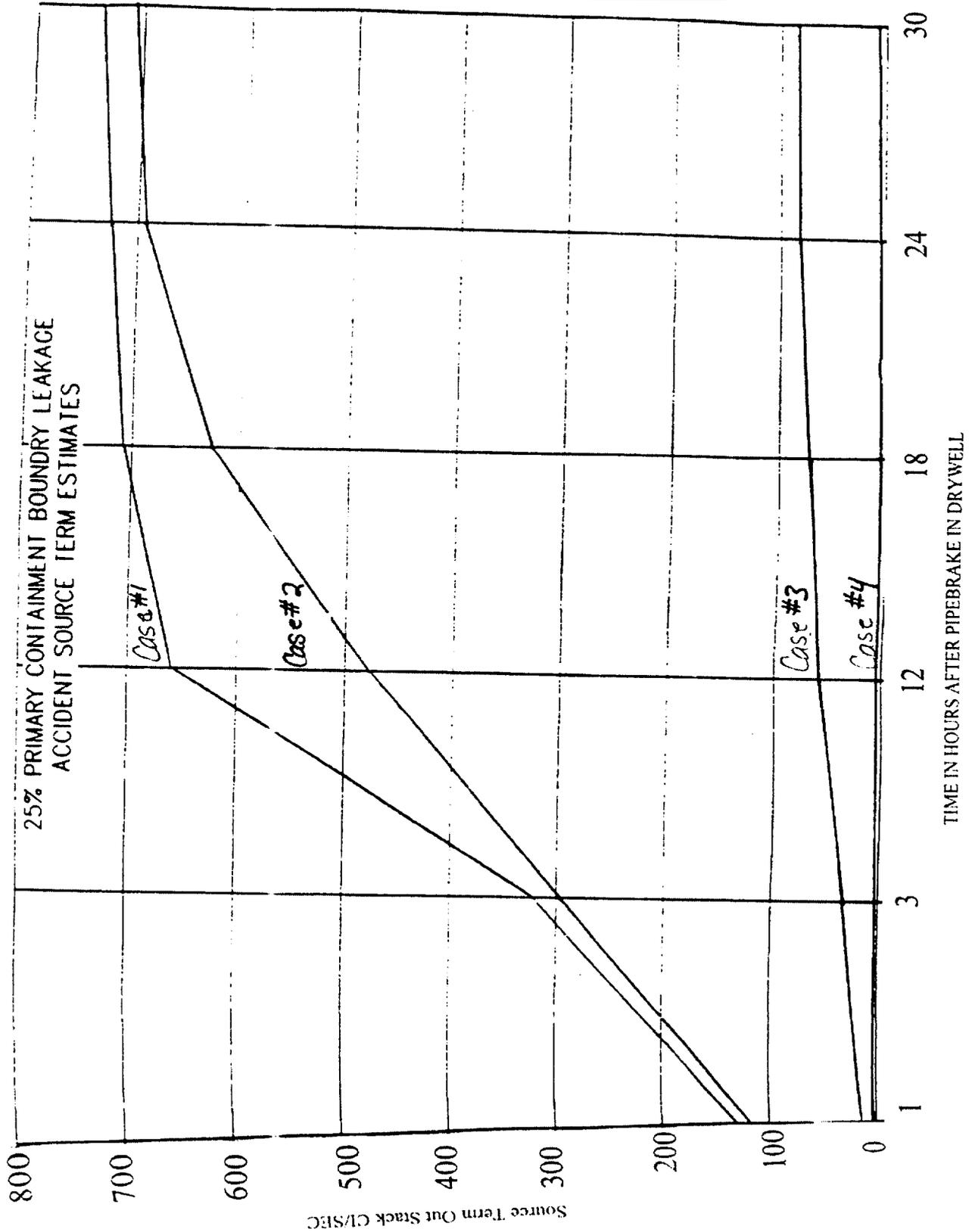
Attachment 5
1.5% LEAKAGE SOURCE TERM ESTIMATE



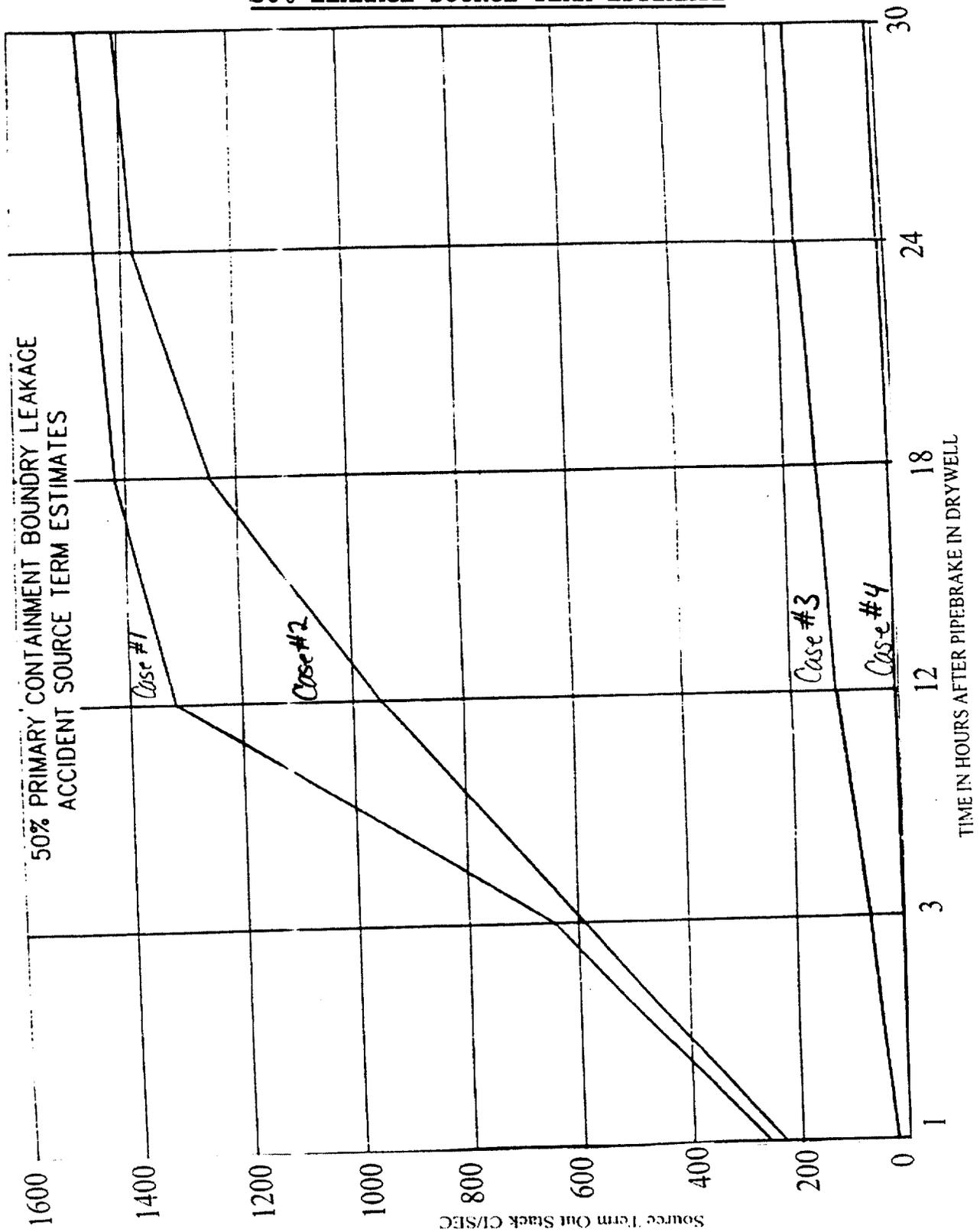
10% LEAKAGE SOURCE TERM ESTIMATE



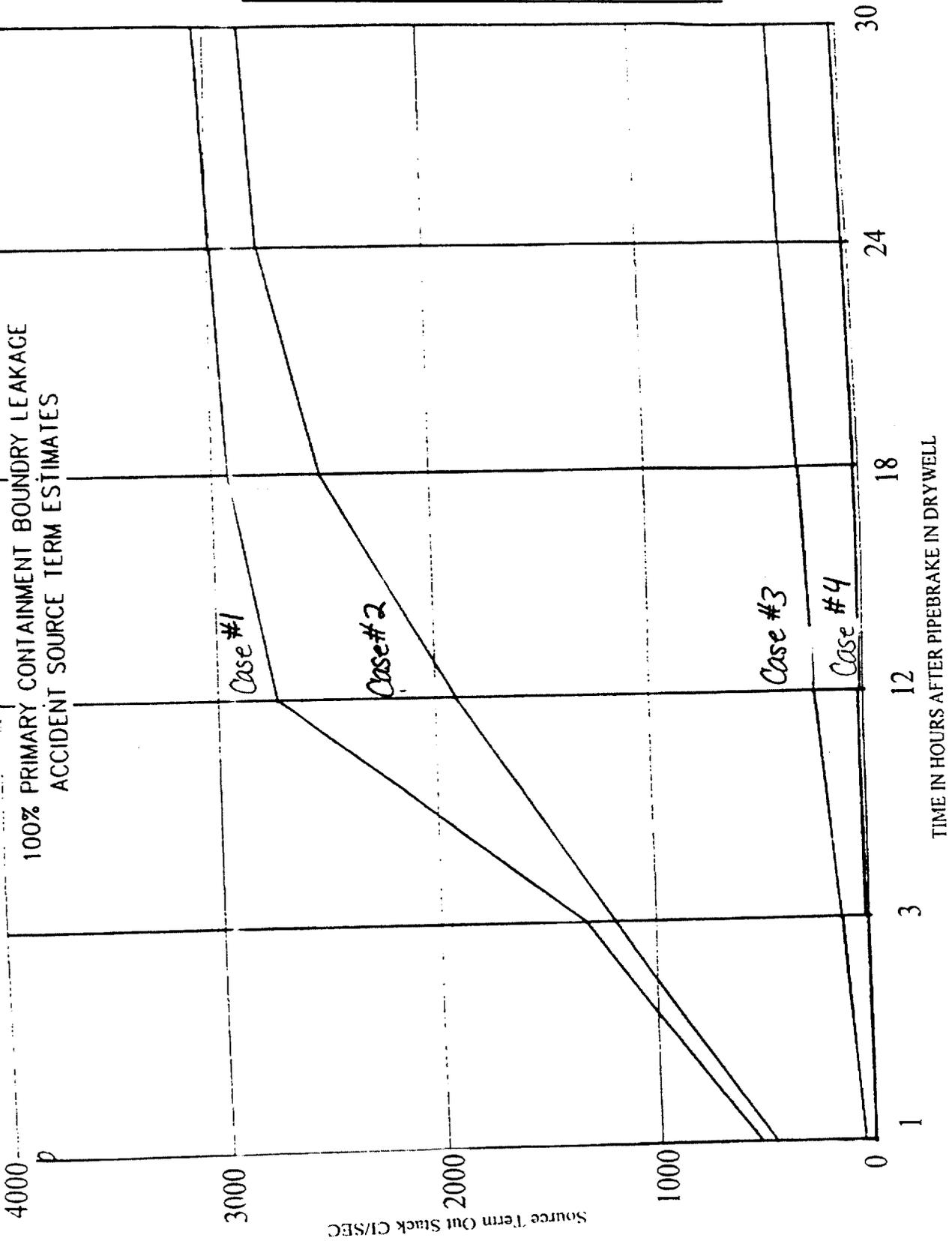
25% LEAKAGE SOURCE TERM ESTIMATE



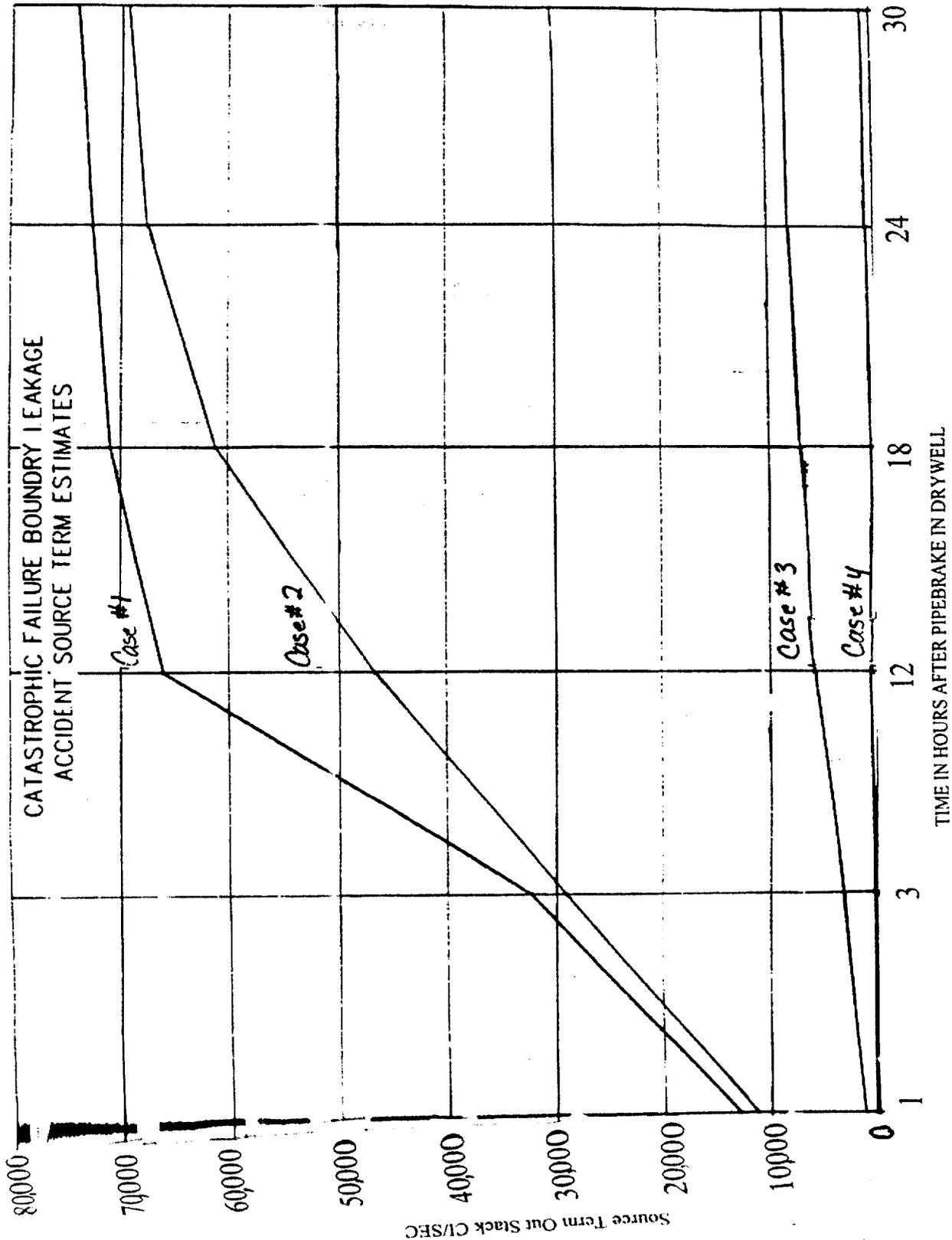
Attachment 8
50% LEAKAGE SOURCE TERM ESTIMATE



Attachment 9
100% LEAKAGE SOURCE TERM ESTIMATE



CATASTROPHIC LEAKAGE SOURCE TERM ESTIMATE



Attachment 11

Page 1 of 2

CALCULATION METHOD FOR DETERMINING PERCENT OF TECHNICAL SPECIFICATION FOR NRC
EVENT NOTIFICATION WORKSHEET

1. The formula for calculating the percent of Technical Specification of Airborne releases was derived from the JAF Offsite Dose Calculation Manual, Revision 7.

The following assumptions apply:

The release Technical Specification limit of 500 mrem/year (Technical Specifications, Appendix B, Section 3.2.a.1) was used as the basis for the noble gas instantaneous release limit.

The Technical Specification of 1,500 mrem/year to any organ (Technical Specifications, Appendix B, Section 3.2.a.2) was used as the basis for the radioiodine, tritium and eight day particulate instantaneous release limit.

The most conservative X/q ($4.83E-7$ sec/ m^3) for ground based receptors at the site boundary was used for all cases and is the FSAR defined accident X/q .

All assumptions and conservatism of the ODCM were applied.

2. As a result of these assumptions and conservatism, these formulae should be used only to estimate the initial percent of Technical Specifications as required by the NRC Event Notification Worksheet (EAP-1.1, Attachment 6). As more detailed source term and meteorological data become available, a more accurate determination of percent Technical Specification should be performed.
3. Calculation method for determining the initial percent of Technical Specifications for NRC Event Worksheet (use calculation worksheet on next page).

For Noble Gas Vent Release:

$$\% \text{ T.S.} = RR_{NG} (\text{Ci/s}) \times 2924$$

For Noble Gas Stack Release:

$$\% \text{ T.S.} = RR_{NG} (\text{Ci/s}) \times 159$$

Where RR_{NG} = noble gas release rate in curies per second

These equations assume an instantaneous release rate, ODCM dose conversion factors, and historical meteorological data.

For Gross Liquid Release excluding Tritium:

$$\% \text{ T.S.} = F_L (\text{gal/m}) \times C_L (\mu\text{Ci/ml}) \times 2120$$

Where F_L = flow rate in gallons per minute

C_L = concentration of liquid effluent in $\mu\text{Ci/ml}$

2120 = unit and dose conversion factor

For iodine, tritium and particulates with half-lives greater than 8 days:

$$\% \text{ T.S.}_{\text{iodine and particulate}} = RR_{\text{iodine}} (\text{Ci/sec}) \times 40.48$$

$$\% \text{ T.S.}_{\text{tritium}} = RR_{\text{tritium}} (\text{Ci/sec}) \times 0.32$$

Total % T.S. = Σ % T.S. for all release points

ATTACHMENT 12
ANALYZED ACCIDENT TYPES

New Accident Names/Analyzed Accidents per Attachment A of EAP-4		Loss of Coolant Accident	Control Rod Drop	Refueling Accident	Steam Line Break Two Phase	Steam Line Break	LOCA - Engineered Safety Feature Component Leakage	
		loca.jaf	crd.jaf	rfa.jaf	slb2.jaf	slb2.jaf	esf.jaf	
OLD EDAMS Accident Name Used		Loss of Coolant Accident	Control Rod Drop	Refueling Accident		Steam Line Break Two Phase	Containment Design Basis Accident	
Analyzed Release Point		Elevated	Ground	Elevated	Ground	Ground	Elevated	
Nuclide		LOCA	CRD	RFA	SLB1	SLB2	CDBA	
NOBLE GASES (Ci/sec)	Kr 83M	1.353E+00	1.577E-03	6.117E-03	1.517E-05	1.517E-05	1.154E-02*	
	Kr 85M	2.906E+00	3.386E-03	8.839E-02	2.725E-05	2.725E-05	1.508E-04	
	Kr 85	1.301E-01	1.156E-04	1.604E-01	8.917E-08	8.917E-08	3.658E-09	
	Kr 87	5.572E+00	6.494E-03	1.432E-05	8.917E-05	8.917E-05	0.000E+00	
	Kr 88	7.894E+00	9.200E-03	2.777E-02	8.917E-05	8.917E-05	0.000E+00	
	Kr 89	9.817E+00	1.144E-02	0.000E+00	5.800E-04	5.800E-04	0.000E+00	
	<i>Kr subtotal</i>	<i>2.767E+01</i>	<i>3.221E-02</i>	<i>2.827E-01</i>	<i>8.008E-04</i>	<i>8.008E-04</i>	<i>1.508E-04</i>	
	Xe131m	6.825E-02	7.953E-05	8.783E-02	6.692E-08	6.692E-08	7.994E-05*	
	Xe133m	9.942E-01	1.159E-03	1.048E+00	1.292E-06	1.292E-06	1.934E-03	
	Xe133	2.386E+01	2.781E-02	2.833E+01	3.658E-05	3.658E-05	2.769E-02	
	Xe135	3.081E+00	3.589E-03	6.522E+00	9.833E-05	9.833E-05	1.952E-01	
	Xe135m	4.494E+00	5.239E-03	3.578E-01	1.158E-04	1.158E-04	5.686E-01	
	Xe137	2.094E+01	2.440E-02	0.000E+00	6.692E-04	6.692E-04	0.000E+00	
	Xe138	1.988E+01	2.316E-02	0.000E+00	3.975E-04	3.975E-04	0.000E+00	
	<i>Xe subtotal</i>	<i>7.332E+01</i>	<i>8.544E-02</i>	<i>3.635E+01</i>	<i>1.319E-03</i>	<i>1.319E-03</i>	<i>7.934E-01</i>	
	<i>Noble Gas (NG) subtotal</i>	<i>1.010E+02</i>	<i>1.176E-01</i>	<i>3.663E+01</i>	<i>2.120E-03</i>	<i>2.120E-03</i>	<i>7.936E-01</i>	
	IODINES (Ci/sec)	I131	3.406E-02	1.323E-04	1.299E-03	9.808E-04	9.808E-04	1.918E-03
		I132	4.975E-02	1.933E-04	1.680E-03	7.628E-03	7.628E-03	2.803E-03
		I133	7.119E-02	2.766E-04	1.346E-03	6.536E-03	6.536E-03	4.011E-03
I134		7.839E-02	3.044E-04	0.000E+00	1.380E-02	1.380E-02	4.417E-03	
I135		6.725E-02	2.612E-04	2.233E-04	9.075E-03	9.075E-03	3.789E-03	
<i>Iodine subtotal</i>		<i>3.006E-01</i>	<i>1.168E-03</i>	<i>4.548E-03</i>	<i>3.802E-02</i>	<i>3.802E-02</i>	<i>1.694E-02</i>	
PARTICULATES (Ci/sec)	CS137	3.583E-03	1.671E-05	1.769E-04	1.198E-05	1.198E-05	2.019E-04	
	TE132	8.178E-03	0.000E+00	0.000E+00	6.900E-04	6.900E-04	4.606E-04	
	SR 89	2.132E-03	0.000E+00	0.000E+00	1.489E-04	1.489E-04	1.201E-04	
	SR 90	2.228E-04	0.000E+00	0.000E+00	1.126E-05	1.126E-05	1.255E-05	
	Ba140	4.094E-03	0.000E+00	0.000E+00	4.358E-04	4.358E-04	2.306E-04	
	La140	4.336E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	2.443E-06	
	<i>Particulate subtotal</i>	<i>1.83E-02</i>	<i>1.67E-05</i>	<i>1.77E-04</i>	<i>1.30E-03</i>	<i>1.30E-03</i>	<i>1.03E-03</i>	
RELEASE RATE TOTALS (Ci/sec)		1.01E+02	1.19E-01	3.66E+01	4.14E-02	4.14E-02	8.12E-01	
Accident Duration Used for EDAMS		8 hours	4 hours	2 hours	2 hours	2 hours	2 hours	
TOTAL Release Assumed (Ci)		2.92E+06	1.71E+03	2.64E+05	2.98E+02	2.98E+02	5.84E+03	
RATIOS		Loss of Coolant Accident	Control Rod Drop	Refueling Accident	Steam Line Break Two Phase	Steam Line Break	LOCA - Engineered Safety Feature Component Leakage	
	Iodine / Noble Gas Ratio	2.98E-03	9.93E-03	1.24E-04	1.79E+01	1.79E+01	2.13E-02	
	Noble gas / Iodine Ratio	3.36E+02	1.01E+02	8.05E+03	5.58E-02	5.58E-02	4.69E+01	
	Noble Gas / Particulate Ratio	5.53E+03	7.04E+03	2.07E+05	1.63E+00	1.63E+00	7.72E+02	
	Iodine / Particulate Ratio	1.65E+01	6.99E+01	2.57E+01	2.93E+01	2.93E+01	1.65E+01	
	NG / Particulate + Iodine Ratio	3.17E+02	9.93E+01	7.75E+03	5.39E-02	5.39E-02	4.42E+01	

EMERGENCY PLAN IMPLEMENTING PROCEDURES/VOLUME 3

UPDATE LIST

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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. 14	08/00	Informational
EAP-43	EMERGENCY FACILITIES LONG TERM STAFFING	REV. 49	07/00	Informational
EAP-44	CORE DAMAGE ESTIMATION	REV. 4	02/98	Informational
EAP-45	EMERGENCY RESPONSE DATA SYSTEM (ERDS) CONFIGURATION CONTROL PROGRAM	REV. 6	07/00	Informational
SAP-1	MAINTAINING EMERGENCY PREPAREDNESS	REV. 15	02/00	Informational
SAP-2	EMERGENCY EQUIPMENT INVENTORY	REV. 30	07/00	Reference
SAP-3	EMERGENCY COMMUNICATIONS TESTING	REV. 69	07/00	Reference

**EMERGENCY PLAN IMPLEMENTING PROCEDURES/VOLUME 3
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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. 10	08/00	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. 18	08/00	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

OBTAINING METEOROLOGICAL DATA*
EAP-42
REVISION 14

REVIEWED BY: PLANT OPERATING REVIEW COMMITTEE

MEETING NO. N/A

DATE: N/A

APPROVED BY: *M. Anlieto*
RESPONSIBLE PROCEDURE OWNER

DATE: 8/3/00

EFFECTIVE DATE: August 9, 2000

FIRST ISSUE FULL REVISION LIMITED REVISION

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PERIODIC REVIEW DUE DATE: FEBRUARY 2003

REVISION SUMMARY SHEET

REV. NO.

- 14 • Added the TSC as an alternate location for performing forecasting of mete data.
- 13 • On Attachment 1, in the EDAMS box, changed "F4" for requery to select "Requery" with the mouse. Also in same box deleted If "locked up" or stalled, Attachment 3 for recovery.
- 12 • Section 4.2 is changed to incorporate the new windows design of EDAMS and the method to obtain Met data.
 - Original Attachment 3 was deleted, this attachment is no longer needed with the windows version. It is being replaced with a new Attachment 3 titled "Guide For Using EDAMS Computer To Obtain Meteorology Data".
- 11 • ACTS 24234 - no order of priority is delineated in this revision.
 - ACTS 24237 - level of use changed to "informational" - part of review and revision for consistency with AP-02.04.
 - Reformat per AP-02.01, Rev. 5.
 - Major revision of this procedure to remove LA100 as met. data source and added flowchart as quick reference guide.

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1.0 PURPOSE

This procedure provides instructions for accessing meteorological data in the Control Room, Technical Support Center, or Emergency Operations Facility and includes provisions for long-term forecasting.

2.0 REFERENCES

None

2.1 Developmental References

2.1.1 EAP-4, DOSE ASSESSMENT CALCULATIONS*

2.1.2 Emergency Dose Assessment Model System (EDAMS) System Design Specification

3.0 INITIATING EVENTS

3.1.1 An emergency has been declared in accordance with IAP-2, CLASSIFICATION OF EMERGENCY* Conditions, or

3.1.2 EAP-4, DOSE ASSESSMENT CALCULATIONS*, has been implemented.

4.0 PROCEDURE**4.1 Description of Available Methods**

Meteorological data is available from the following sources:

- A. Emergency Dose Assessment Modeling System (EDAMS)
- B. Niagara Mohawk Nine Mile Point Units 1 or 2 Control Rooms
- C. Analog strip charts in Control Room or Technical Support Center
- D. Any JAF Networked PC
- E. National Weather Service

The general methodology involved would concern providing meteorological data dependent on type of release. An elevated release (stack) would utilize 200' level data; and if unavailable, would progress in decreasing order to 100', 30' and backup tower data (90'). Likewise, a ground release (any other than stack) would utilize 30' level data, and if unavailable, would progress in increasing order to 100', 200' and backup tower data (90').

This list does not delineate a required order of priority but provides a listing of resources based on accessibility, timeliness and accuracy of 15 minute averaged data.

NOTE: Flowchart (Attachment 1) is provided as a quick reference and may be utilized by the operator familiar with the body of this procedure.

It is optional to record met data on Attachment 2, Obtaining Meteorological Data for Manual Computer Input; this may provide some convenience.

4.2 Obtaining Meteorological Data from EDAMS

4.2.1 If the EDAMS computer is on-line:

- A. The computer will automatically requery the met system and update the data every 15 minutes on the quarter hour (eg. 1300, 1315, 1330, etc.). A beep may be heard when the update occurs.
- B. When recording data, the operator should confirm the time and date displayed are the most current (ie. within the last 15 minutes of the current time).
- C. The operator may select "Requery" to ensure the most current data is displayed.

4.2.2 If EDAMS is **NOT** on-line, log onto the system as follows:

NOTE: Attachment 3 may be used to guide the operator through the steps to activate the EDAMS computer and obtain meteorological data.

- A. Ensure black switch on CR or TSC meteorological panels is positioned to the Niagara Mohawk ("B") position.

NOTE: Select "Continue" at the plant picture screen.

- B. Energize the EDAMS computer power strip to provide power to the computer, monitor and printer.
- C. Select the "Login" icon from the EDAMS icons and select "Continue" at the plant picture screen.
- D. Select the appropriate menu item based on your location as follows:

<u>Location:</u>	<u>Menu Choice</u>
CR	Direct Connect to Met Data
TSC	Direct Connect to Met Data
EOF	Automatic Dial-in to Met Data

- E. When the login routine finishes, close the login screen by selecting "OK".
- F. From the EDAMS icons, select "Emergency Met Report".
- G. Select "James A. FitzPatrick" and "Both" for unit and release height, then select "OK". The emergency meteorology data will be displayed.
- H. Ensure that "Continuous Requery?" is enabled.
- I. The computer will automatically requery the met system and update the data every 15 minutes on the quarter hour (eg. 1300, 1315, 1330, etc.). A beep may be heard when the update occurs.

4.3 Obtaining Meteorological Data from Niagara Mohawk

- 4.3.1 From the Control Room, use the direct line phone to Unit 1 or 2 Control Room and request latest 15 minute averaged data.
- 4.3.2 If for some reason direct line unavailable, from TSC or EOF, use a commercial phone with one of the following numbers:
 - A. NMP1: 349-2841, 349-2842 or 349-2843
 - B. NMP2: 349-2168, 349-2169 or 349-2170

4.4 Obtaining Meteorological Data from Analog Strip Charts

4.4.1 Description of analog strip charts and information available.

There are four (4) analog strip chart recorders available in the Control room and TSC to provide meteorological data.

Each of the three recorders (D, G, J) have two channels (A and B) to provide wind speed and direction.

Channel A = wind speed in mph (0-100 mph) traced on left

Channel B = wind direction in degrees (540° range) traced on right

Recorders used for wind speed and direction	
D	Main Tower 200' level
G	JAF Backup Tower 90' level
J	Main Tower 30' or 100' level (selector switch provided)

Recorder K is provided for stability class determination.

Recorder K has the following four traces:	
A	Provides temperature in °F at 30' level
B	Provides ΔT in °F from 30' to 100' level
C	Provides ΔT in °F from 30' to 200' level
D	Selectable sigma theta (wind direction variation)

Trace D has four selectable channels to trace for:	
A	High main tower (200')
B	Mid main tower (100')
C	Low main tower (30')
D	Backup tower (90')

- 4.4.2 Before attempting to obtain data from any of the strip chart recorders, ensure they are functioning by verifying the date and time on the left side of the chart is correct. The strip chart runs at 1"/hr and the time and date are indicated every two hours or two inches. Time indicated is Eastern Standard Time.
- 4.4.3 If necessary to determine the latest time of a particular strip chart, open the clear plastic protective cover of the recorder and depress the "QUICK LOOK" button located at the top of the strip chart. This will allow you to view the most recent recorded time.
- 4.4.4 When manually retrieving meteorological data, primary concern is given to wind speed and direction, and to the stability class at particular elevations, dependent on the type of release.
- 4.4.5 In order to properly estimate the last 15 minutes on the strip chart, measure the last 1/4" of data for each parameter, if not readily visible, and/or the chart has not already been advanced, do so in order to average the last 15 minutes of data properly. Obtain a minimum of 4 data points within that 1/4" of chart and average.
- 4.4.6 Meteorological data for a Ground or both a Ground and Elevated release are to be determined as follows:

- A. There are 3 recorders, which record wind speed and direction (Recorders D, G, and J). For each chart, wind speed (the left trace) is labeled Channel A and is in MPH (the range is 0 to 100 MPH and spans the left side of the chart) and wind direction (the right trace) is labeled Channel B and is in degrees (the range is 0 to 540 degrees and spans the right side of the chart). Consult Attachment 4.

To obtain wind direction and speed for a ground or ground and elevated release, you must first determine whether the Recorder "J" toggle switch is set for 30 or 100 foot (Main Tower). If it is set for 30 foot (Main), average the wind speed and direction as per step 4.4.5.

If the Recorder "J" toggle switch is set for 100 foot (Main Tower) and/or there is no 30 foot data, adhere to the following hierarchy of substeps:

1. Average the wind speed and direction as per step 4.4.5 for Recorder "G", which is meteorological data for the JAF Back-up Tower 90 foot level.
2. If Recorder "G" is inoperable average the wind speed and direction as per step 4.4.5 for Recorder "D", which is meteorological data for the Main Tower 200 foot level.
3. If both Recorder "G & D" are inoperable average the wind speed and direction as per step 4.4.5 for Recorder "J" which is meteorological data for either the 30 or 100 foot Main Tower levels, as determined by the toggle switch position.
4. If NO strip chart wind speed and direction data is available, proceed to section 4.5 after completing 4.4.8.

4.4.7 Meteorological data for an elevated release is to be determined as follows:

- A. There are 3 recorders, which record wind speed and direction (Recorders D, G and J). For each chart, wind speed (the left trace) is labeled Channel A and is in MPH (the range is 0 to 100 MPH, and spans the left side of the chart) and wind direction (the right trace) is labeled Channel B and is in degrees (the range is 0 to 540 degrees and spans the right side of the chart). Consult Attachment 4.

To obtain wind speed and direction for an elevated release, adhere to the following substeps:

1. Average the wind speed and direction as per step 4.4.5 for Recorder "D", which is meteorological data for the Main Tower 200 foot level.

2. If Recorder "D" is inoperable average the wind speed and direction as per step 4.4.5 for Recorder "G", which is meteorological data for the JAF Back-up Tower 90 foot level.
 3. If both Recorder "D & G" are inoperable average the wind speed and direction as per step 4.4.5 for Recorder "J" which is meteorological data for either the 30 or 100 foot Main Tower levels, as determined by the toggle switch position.
 4. If NO strip chart wind speed and direction data is available, proceed to section 4.5 after completing 4.4.8.
- 4.4.8 To determine stability class for either a ground or elevated release, you must utilize Recorder "K" information, which contains 4 channels that span the full chart:
- A. Trace labeled "A" provides ambient temperature, on a -40 to +110 scale and indicates the current temperature in degrees F at the Main Tower 30 foot level.
 - B. Trace "B" provides temperature difference (delta T) between the 30 and 100 foot level on the Main Tower, and is on the -8 to +20 scale in degrees F.
 - C. Trace "C" provides temperature difference between the 30 and 200 foot level on the Main Tower, and is on the same -8 to +20 scale in degrees F.

- D. Trace "D" provides sigma theta (wind direction variation), on a scale of 0 to 30 degrees, at a level dependant on the switch position on the front of the TIGRAPH recording panel:

Switch Position	Level	Tower
A	200 ft.	Main (Primary)
B	100 ft.	Main (Primary)
C	30 ft.	Main (Primary)
D	90 ft.	JAF (Back-up)

Consult Attachment 5.

- 4.4.9 To derive stability class for either a ground or elevated release, or both, utilize Attachment 4 and adhere to the following hierarchy of substeps:
- A. Average the trace "D" (sigma theta) on Recorder "K", utilizing the 0 to 30 scale, as per step 4.4.5, noting the switch position, and consulting Attachment 6 to determine letter stability class.
- NOTE:** If data is invalid, you may want to switch another switch position to get the most representative data (for the next 15 minute average). For example, for an elevated release you should utilize switch position A, then B, D and finally C, and for a ground release, the progression is C, B, D and then A.
- B. If Trace "D" is unavailable, average the Trace "C" (temperature difference 30 - 200 foot) on Recorder "K", utilizing the -8 to +20 degree F scale as per step 4.4.5 and consulting Attachment 6 to determine letter stability class.
- C. If Traces "D" and "C" are unavailable, average the Trace "B" (temperature difference 30 - 100 foot) on Recorder "K", utilizing the -8 to +20 degree F scale as per step 4.4.5 and consulting Attachment 6 to determine letter stability class.

D. If Traces "D", "C" and "B" are unavailable, estimate stability by comparing wind direction and speed traces to the samples posted on the side of the TIGRAPH 200 housing and/or utilizing the "Atmospheric Stability Characterization" table on Attachment 6.

E. If All Recorders are unavailable for meteorological data, proceed to section 4.5.

4.5 Obtaining Meteorological Information From Other Sources

4.5.1 If meteorological data is not obtained via the primary method (digital) or secondary method (analog strip charts) information on local wind speed and direction, and stability class can be obtained through other sources.

4.5.2 Meteorological data is also available from any JAF networked PC.

4.5.3 Niagara Mohawk Meteorological Data

A. Telephone the Niagara Mohawk Nine Mile Point Nuclear Station #1 Control Room via the "hot line" or dial phone, and request pertinent meteorological data needed.

B. In addition, supplemental information may be obtained through Niagara Mohawk via their Meteorological Building.

4.5.4 National Weather Service Meteorological Data

Data may be obtained via telephone on 716-565-0014. Indicate what meteorological data is needed and note the source of the information.

4.5.5 Stability Estimation

Consult Attachment 6 and estimate stability class via a characterization of the local meteorological conditions.

4.6 Meteorological Forecasting

Meteorological forecasting capabilities during an emergency at JAF will be handled from the EOF (primary) or TSC (alternate) by assigned personnel using the Internet or an on-line service.

- 4.6.1 Assigned personnel will establish a connection with the Internet or on-line service to become familiar with the current and forecast weather situation.
- 4.6.2 Assigned personnel will provide JAF Dose Assessment Group a weather forecast.
- 4.6.3 Provide weather condition and forecast updates until the event requiring support is formally terminated. The frequency of updates will be based upon factors such as the variability of weather conditions and the needs of JAF emergency personnel.

5.0 ATTACHMENTS

1. MET DATA ACQUISITION QUICK REFERENCE FLOWCHART
2. OBTAINING METEOROLOGICAL DATA FOR MANUAL COMPUTER INPUT
3. GUIDE FOR USING EDAMS COMPUTER TO OBTAIN METEOROLOGY DATA
4. ANALOG WIND SPEED AND DIRECTION, RECORDERS D, G AND J
5. RECORDER "K"
6. CLASSIFICATION OF ATMOSPHERIC STABILITY

ATTACHMENT 1

MET DATA ACQUISITION QUICK REFERENCE FLOWCHART

EDAMS	
<ul style="list-style-type: none">• Select "Requery" with the mouse.	
Niagara Mohawk	
<ul style="list-style-type: none">• Direct phone line to Unit 1 or 2 Control Room	Unit 1 CR: 349-2841 349-2842 349-2843
<ul style="list-style-type: none">• Commercial phone	Unit 2 CR: 349-2168 349-2169 349-2170
Analog Strip Charts	
Any JAF Networked PC	
Other Resources	
<ul style="list-style-type: none">• Niagara Mohawk Meteorological Building• National Weather Service (716-565-0014)	

OBTAINING METEOROLOGICAL DATA FOR
MANUAL COMPUTER INPUT

Date: _____ Time: _____

Release Type: _____

Meteorology

Wind Speed: _____ MPH @ _____ ft. level on _____ Tower
Other (Specify) _____

Wind Direction: _____ deg. @ _____ ft level on _____ Tower
Other (Specify) _____

Stability Class: _____ (A - G)

Method: _____ (Sigma Theta - wind variation)

_____ (Temp. Difference - 30 - 200 ft)

_____ (Temp. Difference - 30 - 100 ft)

_____ Estimation

Other (Specify) _____

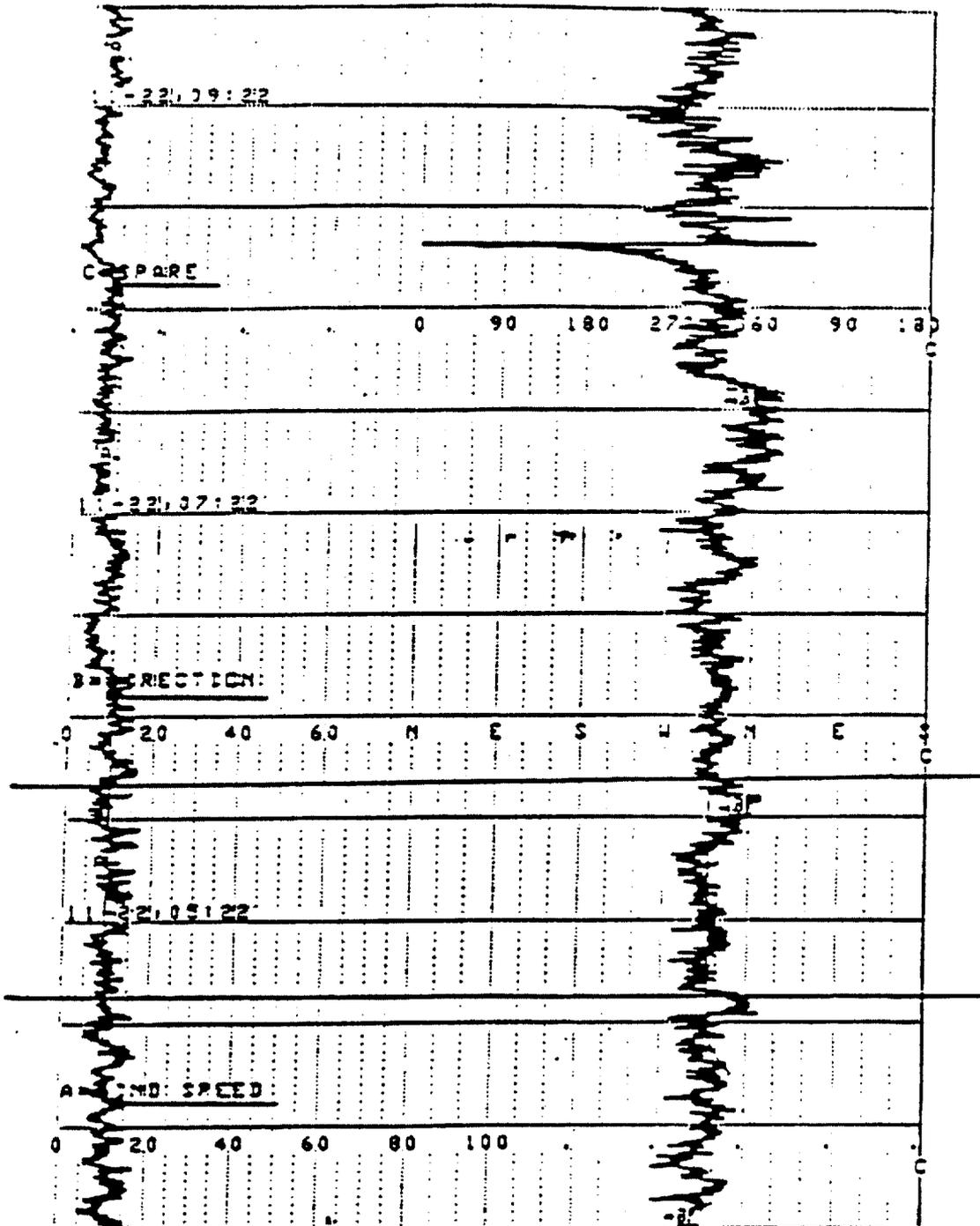
Additional information _____

ATTACHMENT 3
GUIDE FOR USING EDAMS COMPUTER TO
OBTAIN METEOROLOGY DATA

Page 1 of 1

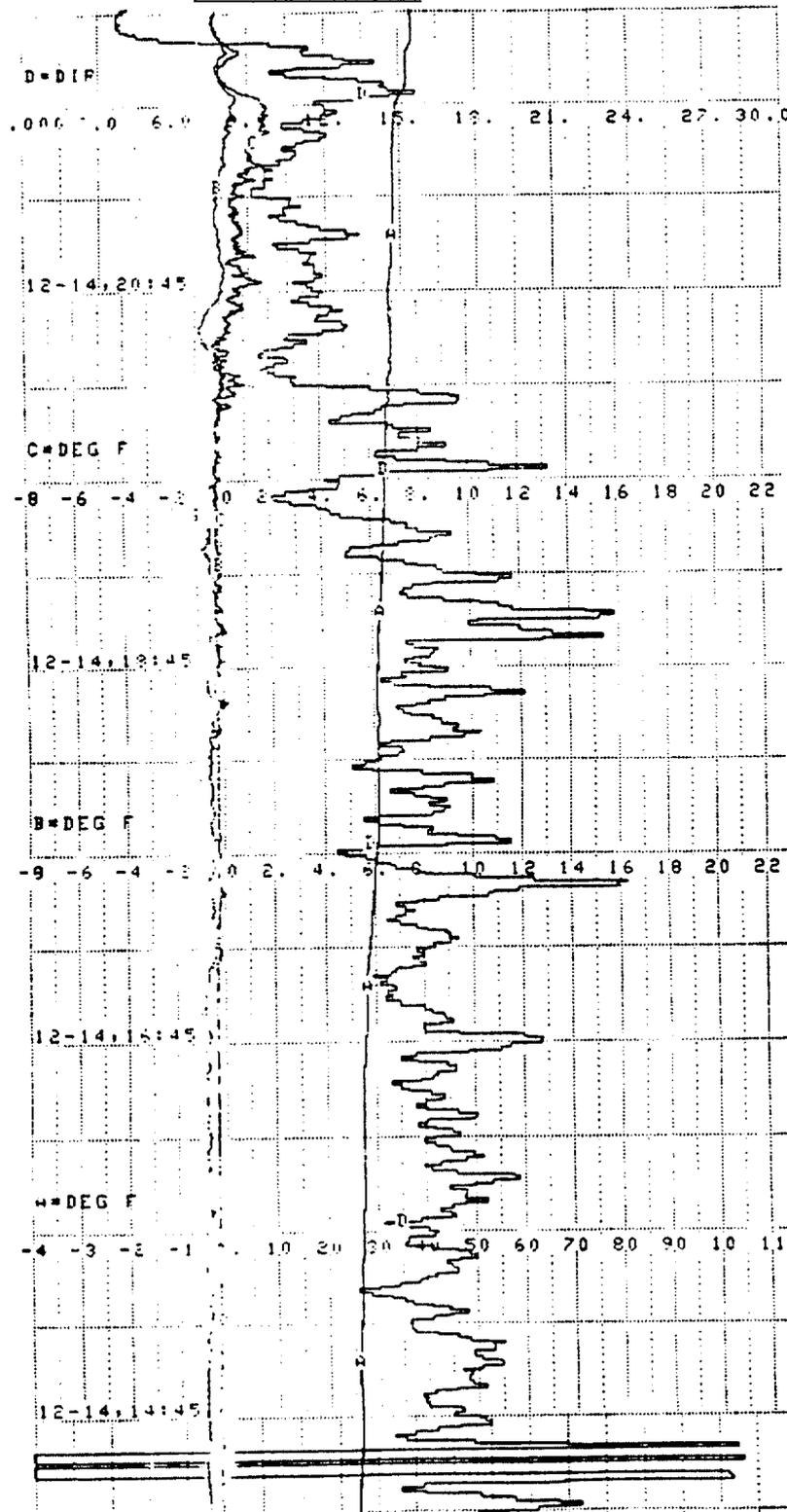
1. If in the CR or TSC, then ensure black switch on met panels is set to Niagara Mohawk "B" position.
2. Ensure power to computer, monitor, and printer.
3. Select the "Login" icon from the EDAMS icons.
4. Select "Continue" at the plant picture screen.
5. For the CR or TSC select "Direct Connect to Met Data". For EOF select "Automatic Dial-in to Met Data".
6. When prompted, following login, select "Ok".
7. From the EDAMS icons select "Emergency Met Report".
8. Select "Continue" at the plant picture screen.
9. Select "James A. FitzPatrick" and "Both", then select "Ok".
10. If a stack release is occurring, or projected, then utilize Elevated data.
11. If a release from any source other than the stack is occurring, or projected, then utilize Ground data.
12. If no release is occurring, or projected, then utilize Elevated data.
13. If no data is available from the EDAMS computer, then utilize EAP-42 to obtain meteorological data from other sources.

ATTACHMENT 4
ANALOG WIND SPEED AND DIRECTION
RECORDERS D, G AND J



ATTACHMENT 5
RECORDER "K"

Page 1 of 1



ATTACHMENT 6
CLASSIFICATION OF ATMOSPHERIC STABILITY

Page 1 of 1

CLASSIFICATION OF ATMOSPHERIC STABILITY BY THE VERTICAL TEMPERATURE DIFFERENCE
 AND BY THE STANDARD DEVIATION OF THE HORIZONTAL WIND DIRECTION TYPING SCHEMES

<u>STABILITY CLASSIFICATION</u>	<u>PASQUILL CATEGORIES</u>	Temperature Change with <u>height °C/100m*</u>	<u>σθ degrees</u>	<u>°θ degrees Median Value</u>
Extremely unstable	A	$\Delta T/\Delta Z \leq -1.9$	$\sigma\theta \geq 22.5$	25.0
Moderately unstable	B	$-1.9 < \Delta T/\Delta Z \leq -1.7$	$22.5 > \sigma\theta \geq 17.5$	20.0
Slightly unstable	C	$-1.7 < \Delta T/\Delta Z \leq -1.5$	$17.5 > \sigma\theta \geq 12.5$	15.0
Neutral	D	$-1.5 < \Delta T/\Delta Z \leq -0.5$	$12.5 > \sigma\theta \geq 7.5$	10.0
Slightly stable	E	$-0.5 < \Delta T/\Delta Z \leq 1.5$	$7.5 > \sigma\theta \geq 3.8$	5.0
Moderately stable	F	$1.5 < \Delta T/\Delta Z \leq 4.0$	$3.8 > \sigma\theta \geq 2.1$	2.5
Extremely stable	G	$4.0 < \Delta T/\Delta Z$	$2.1 > \sigma\theta$	1.7

<u>STABILITY CLASSIFICATION</u>	<u>PASQUILL CATEGORIES</u>	Temperature Change with <u>height °F/70 Feet**</u>	Temperature Change with <u>height °F/170 Feet †</u>
Extremely unstable	A	$\Delta T/\Delta Z \leq -0.73$	$\Delta T/\Delta Z \leq -1.77$
Moderately unstable	B	$-0.73 < \Delta T/\Delta Z \leq -0.65$	$-1.77 < \Delta T/\Delta Z \leq -1.59$
Slightly unstable	C	$-0.65 < \Delta T/\Delta Z \leq -0.58$	$-1.59 < \Delta T/\Delta Z \leq -1.40$
Neutral	D	$-0.58 < \Delta T/\Delta Z \leq -0.19$	$-1.40 < \Delta T/\Delta Z \leq -0.47$
Slightly stable	E	$-0.19 < \Delta T/\Delta Z \leq 0.58$	$-0.47 < \Delta T/\Delta Z \leq 1.40$
Moderately stable	F	$0.58 < \Delta T/\Delta Z \leq 1.53$	$1.40 < \Delta T/\Delta Z \leq 3.73$
Extremely stable	G	$1.53 < \Delta T/\Delta Z$	$3.73 < \Delta T/\Delta Z$

ATMOSPHERIC

STABILITYCHARACTERIZATION

- A MID-AFTERNOON ONLY, WITH CLEAR SKIES OR SKIES WITH VERY FEW THIN CLOUDS; LATE SPRING TO EARLY FALL, WINDS USUALLY ARE BELOW 6 MILES PER HOUR.
- B LATE MORNING TO MID-AFTERNOON ONLY, WITH CLEAR OR PARTLY CLOUDY SKIES; MID-SPRING TO MID-FALL, WINDS ARE USUALLY BELOW 9 MILES PER HOUR.
- C LATE MORNING TO LATE AFTERNOON ONLY, WITH PARTLY CLOUDY SKIES; SPRING THROUGH FALL, WINDS ARE USUALLY BELOW 11 MILES PER HOUR.
- D ALL DAYTIME, WITH OVERCAST OR PARTLY CLOUDY SKIES OR EARLY MORNING AND LATE AFTERNOON WITH CLEAR OR PARTLY CLOUDY SKIES, ALL NIGHT TIME WITH OVERCAST SKIES OR PARTLY CLOUDY, YEAR AROUND, WINDS ARE MODERATE TO HIGH (GREATER THAN 6 MILES PER HOUR).
- E NIGHT TIME ONLY, WITH THIN OVERCAST OR PARTLY CLOUDY SKIES ALL YEAR AROUND, WINDS LESS THAN 10 MILES PER HOUR.
- F NIGHT TIME ONLY, WITH CLEAR TO PARTLY CLOUDY SKIES, ALL YEAR AROUND, WINDS LESS THAN 7 MILES PER HOUR.
- G NIGHT TIME ONLY, WITH CLEAR SKIES OR VERY FEW THIN CLOUDS, ALL YEAR AROUND, WINDS LESS THAN 5 MILES PER HOUR.

PER NRC REGULATORY GUIDE 1.123

ADJUSTED TO CORRESPOND TO THE ΔT MEASURED BETWEEN THE 30-FOOT AND 100-FOOT LEVELS.† ADJUSTED TO CORRESPOND TO THE ΔT MEASURED BETWEEN THE 30-FOOT AND 200-FOOT LEVELS

REVISION SUMMARY SHEET

REV. NO.

- 10
- Changed all texts that referenced RES (Radiological and Environmental Serves) to RP (Rad Protection). - Editorial change.
 - On Attachments 2 & 3, deleted reference to "Oswego Hospital Plan" and added Onondaga County Radiological Emergency Host plan.
 - In section 5.2.7, added statement that contacting the issuing authority may be required.
- 9
- Attachment 3, remove B.1
 - Attachment 2, remove B.1 replace with "withdrawn".
 - Reason for changes - The Nuclear Information procedures are now located at the JNC.
- 8
- Periodic Review Due Date changed to reflect AP-02.04 five year requirement.
 - Section 3.7 - Deleted Warehouse Manager responsibilities as all departments are responsible for obtaining their office supplies.
- 7
- Reformat per AP-02.01, Rev. 5.
 - Change gender specific "he" to non-gender specific "the clerk."
 - Remove reference to SAP-13, not applicable to this procedure.

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1.0 PURPOSE

This procedure will serve to provide an overall administrative program for the control of all necessary and required documents, records, drawings, etc. within the Emergency Operations Facility (EOF). EOF document control will be an extension of those JAFNPP systems which currently control all applicable materials.

2.0 REFERENCES

2.1 Performance References

None

2.2 Developmental References

- 2.2.1 NUREG-0696, Functional Criteria For Emergency Response Facilities
- 2.2.2 NUREG-0654/FEMA-REP-1, Rev. 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants
- 2.2.3 10CFR50, Part 50.47 and Appendix E
- 2.2.4 AP-02.04, CONTROL OF PROCEDURES*
- 2.2.5 AP-01.02, LICENSE AND TECHNICAL SPECIFICATIONS ADMINISTRATION*
- 2.2.6 AP-02.01, PROCEDURE WRITING MANUAL*
- 2.2.7 MCM-1A, MODIFICATION CONTROL MANUAL 1-A
- 2.2.8 WACP-10.1.8, CONTROL OF CONSTRUCTION DOCUMENTS
- 2.2.9 CMSO-17, RECORDS MANAGEMENT SERVICES OPERATION

3.0 RESPONSIBILITIES

3.1 Emergency Planning Coordinator (EPC)

- 3.1.1 Ensures all requirements in this procedure are followed for both normal and JAFNPP emergency conditions.

-
- 3.1.2 Periodically (at least quarterly) reviews the status and revisions of all required EOF documents, records, drawings, etc. to ensure compliance with appropriate regulations. Updates records as appropriate.
 - 3.1.3 Assists in periodic (annual) Quality Assurance Department audits.
 - 3.1.4 Authorizes access to, and removal of, required EOF documents. The EPC may issue instructions limiting access to EOF records and materials if required to insure their integrity.
- 3.2 Emergency Operations Facility (EOF) Manager**
- 3.2.1 Ensures that all required documents are controlled within the EOF and remain available for staff use.
- 3.3 Records Management Supervisor**
- 3.3.1 Supervises activities related to the Records Management Program, Document Control, and Quality Assurance documentation requirements of NRC guidelines, ANSI Standards, Retention Program and any Federal, State and local government requirements.
 - 3.3.2 Ensures required EOF documents/records are maintained in the Quality Assurance Department's audit system (refer to Attachments 1 and 2).
 - 3.3.3 The Records Management Clerk, reporting to the Records Management Supervisor, is responsible for indexing documents required to be included in the PRMS. The clerk also duplicates microfiche for distribution to satellite stations subsequent to satisfactory quality control.
 - 3.3.4 The clerk, reporting to the Records Management Supervisor, delivers and places microfilm at various satellite stations both on and offsite. The clerk also provides hard copies of documents from fiche when requested.

3.4 Drawing Control Supervisor

- 3.4.1 Maintains the Master Drawing File (except Security drawings) to reflect the as-built condition of the plant (JAFNPP).
- 3.4.2 Controls distribution and revisions to drawings and technical manuals. Updates records as appropriate

3.5 Radiation Protection Manager

- 3.5.1 Maintains procedures current in accordance with AP-02.04, Control of Procedures.
- 3.5.2 Ensures timely completion of Emergency Plan and Implementing Procedure surveillances and technician related activities.

3.6 EOF Staff/NYPA Personnel

- 3.6.1 Notifies the EPC immediately upon identification of any missing, damaged or unusable EOF required document/record.

4.0 DEFINITIONS

4.1 EOF Records

EOF Records include all materials that must be either maintained in the EOF or readily accessible in accordance with applicable regulatory requirements and this procedure. These include appropriate documents, drawings, up-to-date plant records, procedures and emergency plans. The terms "records" and "documents" are used interchangeably. Attachment 1 ("NUREG-0696 --Requirements for EOF Records") provides a generic listing of documents/records that must be either maintained in the EOF or readily accessible. Attachment 2 (NYPA/JAFNPP EOF Records) lists those site specific documents/records which NYPA will maintain in the EOF on a controlled basis.

4.2 Plant Records Management System

The PRMS system is a computerized index of plant records. It falls under the responsibility of the Configuration Management Department.

4.3 Microfiche/Microfilm System

Part of the PRMS System. It is used to record required documents and is maintained on a controlled (up-to-date) basis.

4.4 Aperture Card System

Plant drawings are recorded on aperture cards for easy reference and viewing.

5.0 PROCEDURE

5.1 Introduction

5.1.1 Title 10, Code of Federal Regulations, Part 50 (i.e., 10CFR50) -- Appendix E, Emergency Facilities and Equipment, requires the capability for effective direction and control during an emergency from the Emergency Operations Facility (EOF). In order to maintain emergency preparedness, provisions must be employed to ensure that the emergency plan, its implementing procedures, and emergency equipment and supplies are maintained up-to-date. This procedure addresses the physical control over those documents which are required to be maintained at the JAFNPP EOF.

5.1.2 NUREG-0654/FEMA-REP-1, Rev. 1 (Section H.2, "Emergency Facilities and Equipment") requires that each licensee shall establish an EOF from which evaluation and coordination of all licensee activities related to an emergency is carried out, and from which the licensee shall provide information to Federal, State and local authorities responding to radiological emergencies in accordance with NUREG-0696, Rev. 1.

In addition, each organization shall make provisions to inspect, inventory and operationally check emergency equipment/ instruments at least once each calendar quarter and after each use.

- 5.1.3 NUREG-0696 requires the EOF to have appropriate technical data displays and plant records to assist in the diagnosis of plant conditions to evaluate the potential or actual release of radioactive materials to the environment.

The EOF shall have ready access to up-to-date plant records, procedures and emergency plans needed to exercise overall management of licensee emergency response resources. The EOF records shall include, but shall not be limited to, those records listed in Attachment 1 of this procedure.

- NOTE:** Attachment 1, NUREG-0696--Requirements for EOF Records, provides a generic listing of those records to be maintained (or readily accessible) at an EOF, as a minimum.

These records shall either be stored and maintained in the EOF (such as hard copy or microfiche/ microfilm) or shall be readily available via transmittal to the EOF from another records storage location. The method of storage and presentation of the EOF records shall ensure ease of access under emergency conditions. The records available to the EOF shall be completely updated as necessary to ensure currency and completeness.

- 5.1.4 It is important to note that the required informational sources that must be maintained in the EOF are limited to those documents addressed in this procedure. Many of the Emergency Response Facilities' (ERF) functions will be performed through the use of one or more data systems that will gather, store, and process data for display in the Control Room, TSC, EOF and NRC Operations Center. This procedure addresses those up-to-date plant records, procedures and emergency plans needed to exercise overall management of licensee emergency response resources.
- 5.1.5 The status of required documentation maintained in the EOF is one indication of the facility's state of readiness. Failure to maintain the EOF documents in accordance with this procedure may impact the operational availability of JAFNPP.

5.1.6 The licensee (NYPA) shall provide normal industrial security for the EOF complex during normal operating conditions.

5.2 Maintaining EOF Documents (Record Placement, Use and Updating)

- 5.2.1 The Emergency Planning Coordinator (EPC) will identify all documents that are required to be maintained in the EOF. While this procedure provides a comprehensive listing of required EOF documents (Attachment 2, NYPA/JAFNPP EOF Records), changing or new regulatory actions may require additional materials to be obtained by NYPA and placed in, or accessible to, the EOF. The EPC will remain knowledgeable as to all regulatory changes affecting required EOF documents/records.
- 5.2.2 The EPC will ensure that all applicable JAFNPP procedure and drawing changes, system or component modifications, and station policy changes are incorporated into the EOF document control system, as appropriate. This will also include any NYPA corporate policy changes, as they would affect EOF operations during an incident at JAFNPP.
- 5.2.3 The EPC will ensure all changes/revisions made to any EOF document are promptly incorporated into those documents physically located at the EOF. This includes both NYPA and non-NYPA documents.
- 5.2.4 Those documents which have either been revised or are no longer applicable will be discarded as appropriate. Only the latest version of all reference materials will be maintained at the EOF.
- 5.2.5 The EPC shall assist the NYPA Quality Assurance Department during annual audits of EOF documents.
- 5.2.6 A current inventory of required EOF documents will be maintained in the EOF File Room.

- 5.2.7 At least once each calendar quarter, or more frequently if appropriate, the EPC (or designee) shall verify that those EOF Records, listed in Attachment 2, are inventoried and are the most current (up-to-date) revisions available. Attachment 3, EOF Record Inventory and Revision Verification will be used to document this. Determination of latest document revision may require contacting the issuing authority.
- 5.2.8 Verification of the latest revisions of microfiche/microfilm records is the responsibility of the NYPA Configuration Management Department. Aperture card update is the responsibility of the Engineering Documents Control Supervisor.
- 5.2.9 Annual Quality Assurance Department audits will serve to verify the latest revisions of both microfiche and aperture card records maintained at the EOF, or readily accessible to the EOF.
- 5.2.10 Normally, documents will not be removed from the EOF. However, the EPC may authorize access to, and removal of, required EOF documents and records. The EPC may determine which (and how many) records can be removed from the EOF. The EPC may also issue instructions limiting access to EOF records and materials if required to insure their integrity.
- 5.3 **EOF Records/Documents Use During Drills/Exercises or an Actual Event**
- 5.3.1 Utilization of EOF records during periodic drills, exercises or an actual event shall be under the direction of the EOF Manager. The EOF Manager shall ensure that all documents are maintained physically within the EOF and Environmental Laboratory (EL), and that only authorized individuals have access to controlled materials.
- 5.3.2 The Emergency Planning Coordinator (EPC) shall oversee utilization of EOF records/documents.
- 5.3.3 Following all drills, exercises and actual events, all EOF documents must be returned immediately to their appropriate EOF location.

- 5.3.4 An EOF Record Inventory Check (see Attachment 3) must be conducted following each drill, exercise, actual event, and/or quarterly to verify all documents have been returned to their appropriate location. All completed forms shall be maintained by the EPC.
- 5.3.5 Any missing EOF documents will be located or replaced as soon as possible. The EPC will make note of all missing documents.

6.0 ATTACHMENTS

1. NUREG-0696--REQUIREMENTS FOR EOF RECORDS
2. NYPA/JAFNPP--EOF Records
3. EOF RECORD INVENTORY AND REVISION VERIFICATION

NUREG-0696--REQUIREMENTS FOR EOF RECORDS

1. Plant Technical Specifications
2. Plant Operating Procedures
3. Emergency Operating Procedures
4. Final Safety Analysis Report
5. Up-to-date records related to licensee, State and local emergency response plans
6. Offsite population distribution data
7. Evacuation plans
8. Environs radiological monitoring records
9. Licensee employee radiation exposure histories
10. Up-to-date drawings, schematics and diagrams showing:
 - a. Conditions of plant structures and systems down to the component level, and
 - b. In-plant locations of these systems

ATTACHMENT 2

Page 1 of 1

NYPA/JAFNPP--EOF Records

- A. James A. FitzPatrick Nuclear Power Plant (JAFNPP)
- A.1 Emergency Plan, Volume 1*
 - Emergency Plan, Volume 2 -- Implementing Procedures*
 - Emergency Plan, Volume 3 -- Implementing Procedures*
 - A.2 Final Safety Analysis Report (FSAR)
 - A.3 Technical Specifications
 - A.4 Operating Procedures (OPs)
 - A.5 Emergency Operating Procedures (EOPs)
 - A.6 Operational Drawings
 - A.7 Abnormal Operating Procedures (AOPs)
 - A.8 Operations Department Standing Orders (ODSOs)
 - A.9 EOP Support Procedures (EPs)
 - A.10 Radiation Protection Department and Chemistry Department Procedures and Programs
 - A.11 Records -- Employees' Radiation Exposure History
 - A.12 Records -- Environmental Radiological Monitoring Records
- B. New York Power Authority (NYPA)
- B.1 Withdrawn
- C. State of New York
- C.1 New York State Radiological Emergency Preparedness Plan and Procedures
- D. Oswego County
- D.1 Oswego County Radiological Emergency Preparedness Plan
 - D.2 Withdrawn
- E. Nine Mile Point Nuclear Stations
- E.1 Nine Mile Point Nuclear Station Emergency Plan and Procedures
- NOTE: The NIMO plan and procedures are maintained at the EOF by Niagara Mohwak
- F. Onondaga County
- F.1 Onondaga County Radiological Emergency Response Host Plan

EOF RECORD INVENTORY AND REVISION VERIFICATION

Page 1 of 1

Document No.	Title	Document Located YES/NO	Rev. No.	Latest Revision YES/NO	Initial/Date
A.1	<u>JAFNPP</u> E. Plan/Procedures: 12				
	<u>Control Copy No.</u> 5, 6, 7, 8, 9, 10, 11,				
A.2	FSAR: 10				
A.3	Technical Specifications: 9				
A.4	Operating Procedures: 4				
A.5	Emergency Operating Procedures: 4				
A.6	Operating Drawings				
A.7	Abnormal Operating Procedures (AOP): 9				
A.8	Operations Dept. Standing Orders: 9				
A.9	EOP Support Procedures (EP): 9				
A.10	RP and Chemistry Procedures and Programs				
A.12	Records-Employee's Radiation Exposure History				
A.10	Records-Environmental Rad/Monitor				
C.1	New York State Radiological Plan/Procedures				
D.1	Oswego County Radiological Emergency Plan				
F.1	Onondaga County Radiological Emergency Response Host Plan				

Verification Completed By: _____ Date/Time: _____/_____

Reviewed By: _____ Date/Time: _____/_____

REVISION SUMMARY SHEET

REV. NO.

- 18
- On Position 19, added "(EAP-10) and/or Site Evacuation* (EAP-11)."
 - On the ERO Training Applicabilities chart, added column that says "RESP" also on the abbreviations and acronym table added "RESP/ Respiratory Protection".
- 17
1. Add note to Attachment 2 to state that Operations Coordinators may attend either Emergency Director/Coordinator or LO/STA training. Successful completion of Emergency Director/Coordinator satisfies LO/STA training.
 2. Add the following to Attachment 2:
 - Recovery Organization with two positions: Recovery Manager and Recovery Support Group Manager.
 - Add two positions to Joint News Center: Inquiry Response and Rumor Control.
 - Add Recover Procedures and Radio Operator as a table heading.
 3. Add responsibility for TSC Rad Support Coordinator to evaluate radiological conditions that could impact a Protected Area evacuation. (ACT-99-40602)
 4. Add responsibility of Emergency Director to review any deviations or departures from procedures during emergencies, and to initiate required notifications. (ACT-99-40398)

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1.0 PURPOSE

This SAP provides job specific guidance for Emergency Plan assignments. Positions that are defined in the normal plant organization chart are not defined within. Each position includes an arbitrarily assigned reference number for that position. Adherence to specific instructions is very desirable as portions of this guidance may have been developed in response to drill comments or events, but procedural adherence is not required. Individual sections may be copied and used by staff for reference, as needed.

2.0 REFERENCES**2.1 Performance References**

None

2.2 Developmental References

2.2.1 JAF Emergency Plan Section 5, ORGANIZATION*

2.2.2 EAP-17, EMERGENCY ORGANIZATION STAFFING*

2.3 Management Expectations

2.3.1 ACT-99-40398 (DER-99-00118) Ensure the Emergency Response Organization immediately reviews any procedural deviations or departures taken from approved plant procedures during emergencies.

3.0 INITIATING EVENTS

None

4.0 PROCEDURE

4.1 Each individual called on to fill an emergency position in the Control Room, Technical Support Center, Operational Support Center or another facility should use as reference the appropriate enclosure for that emergency position found in this procedure. Attachment 1 to this procedure includes the Emergency Organization charts for each facility. The charts include the position title, the facility activation requirements and the designated alternate.

4.2 All documentation generated through the implementation of this procedure should be forwarded to:

Emergency Planning Coordinator
James A. FitzPatrick Nuclear Power Plant

4.3 Attachment 2 includes a list of ERO Training Applicability.

5.0 **ATTACHMENTS**

1. ORGANIZATION CHARTS AND LEGEND
2. ERO TRAINING APPLICABILITY

EMERGENCY AUGMENTED FACILITY LEADS**POSITION 1****EMERGENCY DIRECTOR/TSC MANAGER ALT.****"ED"**

Emergency Director - TSC Responsibilities

1. Activate TSC in accordance with EAP-14.1. Ensure that Attachment 2 of EAP-14.1 (TSC Activation Checklist) is completed. Ensure announcement is made when TSC becomes operational.
2. Use IAP-2 to classify emergency as either UNUSUAL EVENT, ALERT, SITE AREA EMERGENCY or GENERAL EMERGENCY.
3. After classifying the emergency, complete IAP-1 checklist to assure appropriate procedures are initiated.
4. Review and approve New York State/Oswego County Part I, II and III forms every half hour or upon significant event change (forms found in EAP-1.1.). Descriptive information should not be of a highly technical nature.
5. Announce over Gai-Tronics an update on plant status at approximately half-hour intervals.
6. Approve protective action recommendations prior to approving Part I and II forms.
7. Assure NRC notification over ENS has been done by Control Room Communicator and continued by TSC Communicator.
8. Authorize on Attachment 1 of EAP-15 all emergency exposure limits.
9. Review all press releases from the Joint News Center.
10. Gather TSC coordinators into conference room to plan corrective actions and have TSC coordinators brief each other on status of activities.
11. Appoint TSC Manager as Acting Emergency Director when you are in transit to EOF, or at other times as necessary.
12. Approve Part I, II and III forms just prior to leaving the TSC for the EOF.
13. Assure status boards are updated.
14. Refer to Section 5.3.1 of the Emergency Plan for a listing of general responsibilities.
15. Ensure offsite agencies are notified prior to a site evacuation.

EMERGENCY AUGMENTED FACILITY LEADS**POSITION 1****EMERGENCY DIRECTOR/TSC MANAGER ALT.****"ED" (continued)**

16. Notify NMPC if remote assembly area on Howard Road is to be used. (Have RSC dispatch rad technicians and equipment to Howard Road for personnel and vehicle monitoring.)
17. Notify Environmental Lab of emergency classification, if during normal working hours, and have them initiate activation of the EOF.
18. Ensure Plant Computer Operator activates ERDS upon declaration of an Alert.
19. Include the status of repair team actions during periodic plant briefings.
20. Notify EOF Manager just prior to leaving TSC.
21. Declare EOF operational upon arrival after discussion with TSC.

↓EXP2.3.1

22. Review any deviations or departures from procedures during emergencies. Initiate required notifications. (reference AP-02.06, Section 7.0)

POSITION 2**EMERGENCY DIRECTOR AIDE****"ED Aide"**

1. Review EOF activities and ensure their compliance with emergency plan procedures.
2. Act as a contact point for offsite agencies.

POSITION 3**OPERATIONS COORDINATOR****"OPS COORDINATOR"**

1. Direct plant operational activities.
2. Advise the Emergency Director on matters concerning plant operations.
3. Direct Accident Management Team; act as decision maker regarding Severe Accident Management.
4. Utilize EOPs, SAOGs, and TSGs in support of Severe Accident Management.

POSITION 4**TECHNICAL SUPPORT CENTER MANAGER****"TSC Manager"**

1. Activate TSC in accordance with EAP-14.1. Complete Attachment 2 of EAP-14.1.
2. Use IAP-2 to assist in classifying the emergency as UNUSUAL EVENT, ALERT, SITE AREA EMERGENCY or GENERAL EMERGENCY.
3. After classifying the emergency, complete IAP-1 checklist to assure appropriate procedures are initiated.
4. Assure Communications and Records Coordinator transmits Part I, II and III forms every 30 minutes at a minimum (until EOF is declared operational).
5. Assign Licensed SRO to staff the Control Room/OSC/TSC/EOF hot line.
6. Fulfill Emergency Director's responsibilities while he is in transit to the EOF, and at other times as necessary.
7. Assure the following coordinators fulfill their responsibilities:
 - a. Security Coordinator
 - b. Technical Coordinator
 - c. Communications and Records Coordinator
 - d. Emergency Maintenance Coordinator
 - e. Rad Support Coordinator
 - f. Emergency Director Aide
8. Refer to Section 5.3.2 of the Emergency Plan for a listing of general responsibilities.
9. Conduct formal conferences as required.
10. Emphasize TSC formality to all personnel.

POSITION 5**OPERATIONAL SUPPORT CENTER MANAGER****"OSC Manager"**

1. Activate OSC in accordance with EAP-14.5.
2. Determine requirements for facility operability based upon the guidance provided in EAP-14.5.
3. Assign communicator (preferably SRO) to staff the 4-way hot line.

POSITION 5
OPERATIONAL SUPPORT CENTER MANAGER
"OSC Manager"
(continued)

4. Check communications equipment for operability (e.g. OSC page system, hot lines, telephones, plant page).
5. Conduct frequent OSC briefings using the guidance provided by Attachment 2 of EAP-14.5, OSC Briefing Checklist.
6. Perform duties as specified in EAP-14.5, Section 4.3.3.
7. Emphasize OSC formality to all OSC personnel.
8. Ensure that team members have proper safety equipment (eg. hard hats, flashlights, etc.).
9. Ensure workers radiological exposure limits and qualifications are identified as soon as the OSC is manned.
10. Repair teams should be briefed to call back to OSC when responding to PA announcements while working on emergency tasks in the plant (e.g. during a protected area evacuation).
11. Ensure all team members (including rad tech) are present at the briefing prior to dispatching them.
12. Repair teams should be reminded to leave work area as soon as work is completed.
13. Assure in-plant teams have been thoroughly briefed prior to being dispatched. Formal briefings and debriefings need to be conducted.
14. Assure OSC work activity center maintains up-to-date status board for tracking the dispatching of in-plant teams.

POSITION 6
EMERGENCY OPERATIONS FACILITY MANAGER
"EOF Manager"

1. Assure EOF is being activated in accordance with procedure EAP-14.2.
2. Assign communicators or other personnel to perform the following functions:
 - relay Part I data over RECS
 - update status boards as needed
 - telecopy Parts I, II, and III data as needed
 - copy and distribute Parts I, II and III data within EOF
3. Ensure individuals and equipment are available for performing the following functions:
 - relaying of technical data from plant
 - relaying required information to offsite agencies
 - dose assessment activities
 - logging EOF activities
 - tracking emergency facilities long term staffing
 - procurement of supplies, materials and services
4. Upon declaring the EOF operational, ensure Parts I, II and III forms are completed and disseminated as required.

Use the following for guidance in distributing forms:

	Part I forms	Part II forms	Part III forms
Prepared by:	EOF Manager	Rad Support Coord.	Technical Liaison
Approved by:	Emergency Director	Emergency Director	Emergency Director

Distribution:

Emergency Director	Emergency Director	Emergency Director
EOF Manager	EOF Manager	EOF Manager
Status Boards Keeper	Dose Assessment	Status Boards Keeper
Rad Support Coord.	Boards Keeper	
RECS Communicator	Rad Support Coord.	Technical Liaison
Telecopiers	Telecopiers	Telecopiers

5. Ensure conferences between EOF Manager and Emergency Director are conducted as needed.
6. If an emergency generator is required for EOF power, call Auburn Armature at 1-800-333-0519.
7. Avoid conducting facility briefings while RECS line is in use.

POSITION 7**NYPA SPOKESPERSON****"NYPA SPOKESPERSON/JNC DIRECTOR"**

The position of Power Authority Spokesperson will be filled by the Director, Public Information, or designee. The Spokesperson will coordinate all outgoing information. The responsibilities of the Spokesperson will include:

1. Conducting routine interviews.
2. Serving as the source of statements.
3. Presiding at formal news conferences.
4. Coordinating the technical briefer and senior management available to the news media for information.
5. Coordinating the activities with the JNC Administrative Manager.
6. Maintaining contact with the Headquarters Office and securing any needed approvals.
7. Coordinating information with public information spokesperson for local, state, and federal agencies.

TECHNICAL SUPPORT CENTER EMERGENCY AUGMENTED STAFF**POSITION 15****COMMUNICATIONS AND RECORDS COORDINATOR**

1. Assist in TSC set-up in accordance with EAP-14.1.
2. Obtain copies of all Control Room communication forms for historical purposes.
3. Complete Parts I, II and III forms located in EAP-1.1 with appropriate input from Rad Support Coordinator and Technical Coordinator. Descriptive information should not be of a highly technical nature.
4. Transmit Parts I, II and III forms located in EAP-1.1 every 30 minutes or upon significant event changes to Oswego County, New York State, EOF and JNC via telecopiers located at switchboard.
5. Designate a RECS communicator to transmit information over RECS phone when Part I of EAP-1.1 is completed.

POSITION 15
COMMUNICATIONS AND RECORDS COORDINATOR
(continued)

6. Designate a communicator or clerk to make copies of Parts I, II and III forms located in EAP-1.1 to distribute to:
 1. Rad Support Coordinator
 2. Plant Engineers
 3. Technical Coordinator
 4. OSC Manager
 5. Public Information Officer
 6. Emergency Director
 7. Emergency Maintenance Coordinator
 8. NRC Communicator
 9. Communications and Records Coordinator
 10. Telecopier
7. Assign an individual to staff the NRC ENS hotline (preferably an SRO - use any communicator if SRO is unavailable).
8. Assign an individual to contact all agencies on Attachment 8 of EAP-1.1 not already notified by Control Room Communicator, if Emergency Director so desires.
9. Maintain log of events in record book.
10. Once EOF is operational, they will transmit Parts I, II and III forms located in EAP-1.1 to Oswego County, New York State and JNC.
11. Terminate sending all telecopies to Oswego County and New York State once the EOF is operational.
12. Request to receive Parts I, II and III forms located in EAP-1.1 via telecopy from EOF after the EOF is operational and distribute them.
13. Instruct the TSC RECS Communicator to copy information from Attachment 1 of EAP-1.1 after EOF is activated and distribute it.

NOTE: Distribute either the Part I copied by the RECS communicator or the one telecopied from the EOF. It is not necessary to distribute both.

POSITION 16
EMERGENCY MAINTENANCE COORDINATOR
"EMC"

1. Assist in TSC set-up in accordance with EAP-14.1.
2. Assist in the OSC activation process by ensuring that an OSC Manager has been appointed.
3. Coordinate with Operations the dispatching of damage repair teams after informing the TSC Manager of the intent to dispatch a team.
4. Update TSC with findings of damage repair teams after they have returned to OSC work activity center and have been debriefed.
5. Maintain log of events in record book.
6. Emphasize the importance of prioritizing tasks to be worked on by OSC repair teams. As priorities change during the event, the priorities of individual tasks may also change. These priorities must be communicated to respective personnel.
7. The Emergency Maintenance Coordinator should set the priorities and discuss them with the OSC Manager. The status of repair teams should be forwarded to the ED/TSC Manager to be included in the plant briefings.
8. Supervisors should maintain logs of their activities.
9. Repair teams should be briefed to call back to OSC when responding to PA announcements while working on emergency tasks in the plant (e.g. during a protected area evacuation).
10. Repair teams should be reminded to leave work area as soon as work is completed.

POSITION 17

EMERGENCY SECURITY COORDINATOR

1. Assist in TSC set-up in accordance with EAP-14.1.
2. Coordinate assistance from Oswego County Sheriff's Department if they are needed for site access control.
3. Coordinate assistance from offsite fire agencies if they are needed.
4. Coordinate personnel accountability activities in accordance with EAP-8.
5. Assure EOF Security Coordinator and Security Guard have been dispatched to the EOF upon activation.
6. Establish emergency access control points to the site in accordance with EAP-23.
7. Inform Main Security to establish and update an emergency classification sign.
8. Maintain log of events in record book.

POSITION 18
TECHNICAL COORDINATOR
"TSC Technical Coordinator"

1. Assist in TSC set-up in accordance with EAP-14.1. (Group)
2. Coordinate use of SPDS information for monitoring plant status. (Engineers)
3. Update status boards using SPDS information and SRO communicator on hotline with Control Room. (Engineers)
4. Provide completed Part III form of EAP-1.1 every 30 minutes or upon significant change to Communications and Records Coordinator.

NOTE: The EOF will perform this function upon being declared operational. (Engineers)

5. Provide technical support to the Control Room regarding appropriate corrective measures. Use available TSC drawings. (Engineers)
6. Assist in emergency classifications in accordance with IAP-2. (Coordinator)
7. Coordinate engineering decisions with G.E. liaison. (Engineers)
8. Maintain documentation on plant forms, etc. which clearly describe any work activities or modifications not found in plant procedures. (Engineers)
9. Coordinate in-plant repair activities with Emergency Maintenance Coordinator and OSC Manager. (Coordinator)
10. Maintain log of events in record book. (Group)
11. Provide input to NRC communicator on operations data for NRC review. (Engineers)

POSITION 19**RAD SUPPORT COORDINATOR****"TSC Rad Support Coordinator"**

1. Assist in TSC set-up in accordance with EAP-14.1.
2. Assure Rad Engineers verify equipment is operational.
3. Verify that equipment listed in EAP-14.6, Habitability of the Emergency Facilities, Section 3.0 (Initiating Events) is operational so that indicators of abnormal radiological conditions can be monitored.
4. Obtain copies of completed Part I and II forms of EAP-1.1 from Control Room along with protective action recommendations (as appropriate).
5. Assure Out-of-Plant Dispatcher verifies cellular phone and radio equipment is operational.
6. Assure Rad Protection Supervisor establishes CAM, IM-1A and ARM by switchboard is operational and has technician available for habitability surveys in emergency facilities and assembly areas.
7. Establish Rad Protection and Chemistry Supervisors in OSC for coordination of in-plant teams.
8. Review and provide completed Part I and II forms of EAP-1.1 to Communications and Records Coordinator for Emergency Director approval.
9. Approve completed protective action recommendations from data obtained through the use of EAP-4 and EAP-42.
10. Designate Rad Engineers to monitor plant parameters and determine source term.
11. Assure Rad Engineers estimate fuel damage as described in EAP-44, if appropriate.
12. Assure Plant Chemistry Supervisor makes appropriate provisions for PASS sampling in accordance with PSP-17, AM-03.01, etc.
13. Perform dose assessment on EDAMS, if necessary. (EOF may take over this function as soon as dose assessment personnel arrive at the EOF.) Ensure that a complete turnover of dose assessment functions is completed prior to transfer of dose assessment to the EOF.
14. Coordinate in-plant entries using EAP-6.
15. Coordinate dispatching of field teams (2 offsite and 1 onsite) using EAP-5.3.
16. Maintain log of events in record book.
17. Ensure equipment is operational and meteorological/survey team information is posted. Contact a plant computer operator if equipment is inoperable.
18. Update of meteorological information and plant status to field teams must be done every 15 minutes and/or upon changing.

POSITION 19
RAD SUPPORT COORDINATOR
"TSC Rad Support Coordinator"
(continued)

19. Consider the need for increased habitability monitoring and area surveys throughout the plant during loss of power scenarios (i.e. area rad monitors and/or process rad monitors not available).
20. OSC repair team members radiological exposure limits and qualifications need to be identified upon OSC activation.
21. Upon OSC activation recommend to OSC Manager and Rad Protection Supervisor that repair teams dress-out in PCs.
22. Assist with Accident Management Team.
23. Evaluate radiological conditions that could impact a Protected Area evacuation (EAP-10) and/or Site Evacuation* (EAP-11).

POSITION 21**NRC COMMUNICATOR**

1. Assist in TSC set-up in accordance with EAP-14.1. (Group)
2. Obtain copies of all forms completed in the Control Room prior to TSC activation. (RECS and ENS Communicators)
3. Maintain continuous communication with NRC Operations Center via the ENS line. Provide information needed to update their status boards. Ensure Attachment 6 of EAP-1.1 is completed and transmitted as required.

Also, as part of the Records and Communications group, assist in the following, if necessary.

4. Complete Part I, II and III forms of EAP-1.1 with appropriate input from Radiation Support Coordinator, Technical Coordinator and/or Security Coordinator until EOF is operational. (Communications/Records Coordinator)
5. Transmit information on Part I form of EAP-1.1 every 30 minutes or upon significant event changes to Oswego County and New York State via RECS until EOF is operational. (RECS Communicator)
6. Telecopy Part I, II and III forms of EAP-1.1 every 30 minutes or upon significant event changes to Oswego County and New York State until EOF is operational. (Telecopy/Switchboard Op)
7. Telecopy all forms completed in Control Room and TSC prior to EOF activation to the EOF. (Telecopy/Switchboard Op)
8. Complete and maintain notifications to all agencies on Attachment 8 of EAP-1.1 if directed to do so by the E.D. (Communicator)
9. Copy and distribute Part I, II and III forms of EAP-1.1 to:
 - Emergency Director
 - Radiation Support Coordinator
 - Technical Coordinator
 - Emergency Maintenance Coordinator
 - Communications/Records Coordinator
 - Public Information Officer
 - Security Coordinator
 - ENS Communicator

POSITION 21
NRC COMMUNICATOR
(continued)

10. Maintain log of events in record book. (Group)
11. Receive telecopies of Part I, II and III forms of EAP-1.1 from EOF after it is operational. (Telecopy/Switchboard Operator)
12. Record all briefings by Emergency Director and information discussed in Coordinator's conferences. (Emerg. Log Keeper)

POSITION 22
SECURITY COORD/SERGEANT

1. Ensure accountability is conducted in accordance with EAP-8.

POSITION 23
PLANT ENGINEER
" TSC Plant Engineers"

1. Assist in TSC set-up in accordance with EAP-14.1.
2. Use computer terminals and EPIC to obtain computer information.
3. Monitor EPIC computer emergency logs.
4. Update vessel level and pressure status boards as information changes.
5. Complete Part III forms of EAP-1.1 on a half hour basis or upon significant changes. Route to Communications and Records Coordinator through Technical Coordinator. (When EOF is operational, Part III forms will be filled out and telecopied by EOF personnel.)
6. Provide technical support as directed by Technical Coordinator.
7. Develop corrective actions to solve problems utilizing all available resources (drawings, technical manuals, etc).
8. Verify plant status information with Licensed SRO communicator on the Control Room hotline.
9. Coordinate repair efforts with OSC personnel as required.

POSITION 24
RAD ENGINEER
"TSC Rad Engineers"

1. Position reports to the Rad Support Coordinator.
2. Assist with TSC set-up in accordance with EAP-14.1.
3. Obtain meteorological data in accordance with EAP-42 and/or posted operator aid. Mete data should be posted every 15 minutes on status board and updated to field teams at the same time. The radio dispatcher can perform these tasks.
4. Obtain plant process data via EPIC and/or Plant Parameter terminals. Use EAP-4 for calculating release rates and projecting doses. This should be done every 30 minutes as a minimum. Release rates and projected doses should be used to complete Part II forms of EAP-1.1 on same frequency.
5. Assure EDAMS is operational in accordance with EAP-4.
6. Verify mete data information that was used for Part I Of EAP-1.1 in the Control Room.
7. Obtain protective action recommendations via EAP-4.
8. Interface with Plant Chemistry Supervisor to obtain a more representative isotopic breakdown of source term.
9. Estimate fuel damage via EAP-44.

Radiological Assessment Group

1. Assist in TSC set-up in accordance with EAP-14.1. (Group)
2. Obtain copies of Part I forms of EAP-1.1 from the Control Room to determine meteorological/dose assessment information already sent to offsite agencies. (Rad Engineers)
3. Verify that meteorological data from the computer and strip charts is accurate and current. (Rad Engineers)
4. Assure technicians, Rad Protection and Chemistry Supervisors are available for OSC staffing and functions. (Rad Support Coordinator)
5. Assure cellular phone and radio equipment is operable for survey teams. (Out-of-Plant Dispatcher)
6. TSC habitability verified using CAM, IM-1A and area rad monitor established at switchboard. (Radiation Support Coordinator)
7. Establish habitability surveys in accordance with EAP-14.6 as conditions warrant. (Radiation Protection Supervisor)
8. Complete information for Part I, II and III forms of EAP-1.1 forms and provide to Communications/Records Coordinator for Emergency Director approval. (Radiological Support Coord.)

POSITION 24**RAD ENGINEER****"TSC Rad Engineers"****(continued)**

9. Complete protective action recommendations per EAP-4 for supporting documentation on Part I and II forms of EAP-1.1. (Rad Engineers)
10. Monitor effluent pathways and determine source terms using forms in EAP-4. (Rad Engineers)
11. Estimate fuel damage. (Rad Engineers)
12. Coordinate PASS activities. (Plant Chemistry Supervisor)
13. Monitor in-plant work activities and record radiological data in accordance with EAP-6. (Radiation Protection Supervisor)
14. Coordinate dose projections with EOF prior to transferring activities. (Rad Engineers)
15. Maintain log of events. (Group)

POSITION 25**COMMUNICATOR****"TSC Communicator"**

1. Assist in TSC set-up in accordance with EAP-14.1. (Group)
2. Obtain copies of all forms completed in the Control Room prior to TSC being declared operational.
3. Complete Parts I, II and III forms of EAP-1.1 with appropriate input from Radiation Support Coordinator, Technical Coordinator and/or Security Coordinator until EOF is operational. (Communications/Records Coordinator)
4. Transmit information on Part I forms of EAP-1.1 every 30 minutes or upon significant event changes to Oswego County and New York State via RECS until EOF is operational.
5. Telecopy Parts I, II and III forms of EAP-1.1 every 30 minutes or upon significant event changes to Oswego County and New York State until EOF is operational. (Telecopy/Switchboard Op)
6. Telecopy all forms completed in Control Room and TSC prior to EOF activation to the EOF. (Telecopy/Switchboard Op)
7. Complete and maintain notifications to all agencies on Attachment 8 of EAP-1.1 if directed to do so by the E.D. (Communicator)

POSITION 25**COMMUNICATOR****"TSC Communicator"****(continued)**

8. Copy and distribute Parts I, II and III forms of EAP-1.1 to:
(Communicator)
 - Emergency Director
 - Radiation Support Coordinator
 - Technical Coordinator
 - Emergency Maintenance Coordinator
 - Communications/Records Coordinator
 - Public Information Officer
 - Security Coordinator
 - NRC Communicator
9. Maintain continuous communication with NRC Operations Center via the ENS line. Provide information needed to update their status boards. (NRC Communicator)
10. Maintain log of events in record book. (Group)
11. Receive telecopies of Parts I, II and III of EAP-1.1 from EOF after it is operational. (Telecopy/Switchboard Operator)
12. Record all briefings by Emergency Director and information discussed in Coordinator's conferences. (Emerg. Log Keeper)
13. Complete, as necessary, all call-outs of additional plant personnel needed for support in accordance with EAP-1.1.
14. Maintain copies of all forms.

POSITION 26**TELEPHONE/TELECOPY/ACCOUNTABILITY****"TSC Telephone/Telecopy Operators"**

1. Perform switchboard activities for screening incoming calls.
2. Set-up telecopiers according to the following:
 - a. Transmit only telecopier should be telephone number 342-4268. This should be used to transmit telecopies to Oswego County and New York State (Part I, II and III forms) until the EOF is operational.
 - b. Receive only telecopier should be telephone number 349-6053. This should be used to receive Part II forms from the EOF after it is operational.
3. Maintain a copy of all telecopies with the attached transmission reports.
4. Provide the EOF with copies of all Part I, II and III forms transmitted prior to the EOF being operational.

NOTE: Telecopies of Part I, II and III forms to NYS and Oswego County should take priority over routine telecopies (eg. accountability forms to Staffing Coordinator).

POSITION 28**REACTOR ENGINEERING**

1. Assist in the estimation of fuel damage via EAP-44.
2. Perform Reactor Engineering duties as required.
3. Provide support for Severe Accident Management Team.
4. Confirm Reactor shutdown.
5. Identify RPV breach.
6. Determine status of Torus spray, Drywell Spray, and Boron Injection.

POSITION 29

EMERGENCY LOG KEEPER

1. Maintain an historical log of TSC activities which include as a minimum:
 - timeline of activities (e.g. time facility declared operational, E.D. directives, etc.)
 - summarize discussions between E.D. and other TSC staff
 - summarize coordinator briefings
 - summarize TSC Manager discussions and briefings

POSITION 30

PLANT COMPUTER OPERATOR

"TSC Computer Operator"

1. Assure TSC computer system (EDAMS, EPIC and Plant Parameter) and terminals are functional.
2. Assist in TSC set-up in accordance with EAP-14.1.
3. Monitor process run on computer systems to assure emergency priorities are established.
4. Maintain log of events in record book.
5. Activate ERDS at the Alert or higher classification.
6. Assess and maintain computer operability in the Control Room, TSC, OSC and other areas as requested.

POSITION 32

RADIO DISPATCHER

1. Ensure all equipment is operational.
2. Monitor and log locations of teams.
3. Interface with Rad Support Coordinator/Rad Engineers and keep them informed regarding survey results.
4. Periodically brief team regarding plant conditions and significant events.

POSITION 51
STAFFING COORDINATOR

1. Upon arriving at the EOF, the Staffing Coordinator should consult emergency implementing procedure EAP-43, Emergency Facilities Long Term Staffing.
2. As personnel arrive at the EOF, the Staffing Coordinator shall update the EOF Organization Status Board. Inform the EOF Manager when all JAF positions have been filled.
3. The Staffing Coordinator shall complete step 4.2 of EAP-43 by obtaining copies of forms in file cabinet.
4. Once above forms have been completed, assure copies are distributed. To do this, the Staffing Coordinator shall direct an individual to send copies of completed forms to the appropriate facilities.

NOTE: Control Room and OSC forms should be sent to the TSC with instructions for forwarding to the Ops Coordinator and OSC Manager, respectively.

POSITION 52
EMERGENCY LOG KEEPER EOF

1. Maintain a historical log of EOF activities which include as a minimum:
 - timeline of activities (i.e., when facility is operational, when offsite (NRC, State) representatives arrive, when Emergency Director arrives, etc.)
 - summarize discussions between Emergency Director and offsite agencies (NRC, State, County, etc.)
 - summarize discussions between Emergency Director and other EOF staff (i.e., EOF Manager, Rad Support Coordinator, Emergency Director Aide, Technical Liaison and Public Information Officer).

POSITION 53**CLERK****"EOF Clerk"**

1. Upon arriving at the EOF, collect all Parts I, II and/or III of EAP-1.1 telecopies received from the TSC on telecopier "A". Make a sufficient number of copies and distribute throughout the EOF. Log time and form numbers in "Incoming Logbook." Perform other duties as assigned.
2. Upon EOF becoming operational, the EOF Manager will provide completed copies of Parts I, II and III forms of EAP-1.1 on a minimum half hour basis. These forms should be telecopied to the State and County via telecopiers "B".
3. In addition, copies of completed Parts I, II and III forms of EAP-1.1 should be telecopied to the JNC and TSC via telecopier "C".
4. An individual will be assigned responsibility for making additional copies of completed Parts I, II and III forms of EAP-1.1 and distribute them throughout the EOF.
5. Telecopier "A" shall also be used to receive press releases from the JNC. The press releases should be forwarded to the public information liaison.
6. Upon completion of transmitting telecopies, a transmission report will be produced and should be attached to the form and filed for a log of outgoing telecopies.
7. Telecopier "C" shall also assist in forwarding any other information to JNC and TSC as needed.

POSITION 54**COMPUTER OPERATORS EOF**

1. Troubleshoot all inoperable computer equipment as needed.
2. Contact TSC computer operator for any appraisal of systems status.

POSITION 55
COMMUNICATOR (EOF)
"Status Board Communicators"

1. Obtain completed sequence of events status sheets from the Technical Liaison and post.
2. Update the following status boards whenever a new Part I and/or III form of EAP-1.1 is generated:
 - Vessel Level/Pressure Graph (from Part III)
 - Plant Parameter Trends (from Part III)
 - Effluent Monitor Trends (from Part III)
 - FitzPatrick Protective Action Recommendations (from Part I)

EOF RECS Communicator

1. Upon arrival at the EOF, ensure RECS line is operational by monitoring communications.
2. Review past Part I forms generated from Control Room and/or TSC.
3. Relay information from completed Part I forms as directed in procedure EAP-1.1.

NOTE: It is necessary to ensure the first EOF Part I transmission occurs within 30 minutes of the last TSC Part I transmission.

POSITION 56
OSWEGO COUNTY LIAISON

1. Report to the EOF and request initial briefing regarding plant conditions.
2. Report to Oswego County EOC and:
 - a. assist Oswego County personnel in the interpretation of plant data that has been transmitted to the County.
 - b. assist Oswego County personnel in reconciling any apparent discrepancies in data.

POSITION 57
PURCHASING/ACCOUNTING

1. Access computer systems as necessary.
2. Obtain necessary authorizations and provide for procurement of supplies, materials and/or services as needed.

POSITION 58
TECHNICAL LIAISON

1. Upon arrival at the EOF, establish continuous communications over CR-TSC-OSC-EOF hotline.
2. To establish an historical sequence of events it will be necessary to log all significant plant events as obtained over the dedicated hotline on tear-off sheets for posting.

NOTE: It is this method of logging sequence of events that ensures consistency of displayed information throughout the emergency facilities.

3. Access plant computer information on the EPIC terminal, or by logging on to the WYSE terminal 708 system. Use procedure EAP-26, Plant Data Acquisition System Access, for reference.
4. Complete, when directed by the EOF Manager, a New York State Plant Parameter Part III form using EPIC, the dedicated hotline and 708 system for data input.

NOTE: At a minimum, these forms shall be completed on a half hour basis and/or significant plant event. These forms may be computer generated on EPIC or on the 708 system.

POSITION 59

EOF SECURITY COORDINATOR

"Offsite Security Coordinator"

1. Assure Security Guard(s) (or designee) is located at lobby desk.
2. Check to ensure all outside entrances are locked with the exception of the main entrance on the west side.

NOTE: EOF Manager has the master key to these outside entrances.

3. Activate Security Alarm Control Panel as required to ensure security of the facility.
4. Assure Security Guard at front desk fulfills responsibilities outlined in Section 4.3 of EAP-37.
5. Assure radio at front desk is turned up to monitor JAF Security communications. Make sure time on radio is correct.

Supplies and Equipment Available

<u>Item</u>	<u>Location</u>
EOF Master Key	EOF Manager
Registration Packet	Security Office Cabinet
Badging Supplies	Security Office Cabinet
Sign Lettering	Security Office Cabinet
Phone ext. 5715	Office Desk

6. Ensure emergency classification sign and barrier stanchions are established at main entrance to instruct arriving personnel.
7. Instruct Security Guard(s) to direct all personnel through the portal monitor in the Decon Room if there has been a release or if monitoring is deemed necessary by the Rad Support Coordinator.

POSITION 60**RAD SUPPORT COORDINATOR****"EOF Rad Support Coordinator"**

1. Ensure personnel, equipment and communications are available for performance of dose assessment activities.
2. If any problems are encountered with dose assessment computer equipment, contact the EOF computer operator or the TSC computer operator.
3. Provide EOF Manager with dose assessment information needed to complete Part I and Part II forms of EAP-1.1 on a minimum half hour basis and/or significant plant changes.
4. If there has been a release, ensure personnel arriving at EOF are monitored for contamination.
5. Ensure personnel departing the EOF and entering the 10 mile Emergency Planning Zone are assigned dosimetry.
6. Ensure field teams are briefed and are continually updated regarding plant information after dispatching.
7. Act as liaison with the Emergency Director for providing offsite agencies with an understanding of dose assessment calculations and protective action recommendations.
8. Ensure procedures are properly utilized and forms used.
9. Ensure set-up and operability checks are made to equipment and that a proper turnover is conducted.
10. Ensure status boards are updated.
11. Remind personnel to resolve discrepancies between measured and projected doses, if necessary.
12. Ensure that personnel obtain meteorological information/forecasts using EAP-42.

POSITION 62**DOSE ASSESSMENT COORDINATOR****"EOF Dose Assessment Coordinator"**

1. Ensure all dose assessment equipment is operational upon arriving at EOF.
2. Establish communications with TSC Rad Engineers to discuss eventual transfer of dose assessment function.
3. Upon EOF being declared operational, the dose assessment function shall be transferred to the EOF.
4. Verify EDAMS output data with the TSC, if applicable.
5. Using EDAMS, provide data to Rad Support Coordinator for completion of Part I and II forms of EAP-1.1 on a minimum half hour basis and/or significant change.
6. Modify model input as actual data becomes available, such as:
 - effluent monitor readings
 - effluent stream/PASS sample results from TSC
 - field team results
7. Compare field data with model results and inform Rad Support Coordinator of differences.
8. Operate EDAMS as required.

POSITION 63

RAD DATA COORDINATOR

"EOF Rad Data Coordinator"

1. Ensure all equipment is operational (i.e. radios, phones, 708 data terminal, etc.).
2. Review past and present locations and data of any teams dispatched from the plant.
3. Provide routing for dispatching EOF field teams and assume control for routing of field teams depending upon meteorological conditions.
4. Interface with radio operator to continually update field teams regarding plant information and meteorological conditions.
5. Collect field data.
6. Interface with Rad Engineer to obtain environmental samples.
7. Brief and dispatch EOF field teams in accordance with procedures, as needed.

POSITION 64

RAD ENGINEER

EOF Radiological Engineer

1. Ensure EOF field teams are briefed and dispatched in accordance with procedures.
2. Review plant effluent monitor data on EPIC and/or 708 system and inform Rad Support Coordinator and Dose Assessment Coordinator of status.
3. Coordinate source term estimates with TSC Rad Engineers using EAP-4.1.
4. Coordinate the location and type of environmental sampling that is needed.
5. Interface with Rad Data Coordinator to obtain environmental samples.
6. Compare field data with model results and inform Rad Support Coordinator of differences.
7. Operate EDAMS as required.

POSITION 65
RAD SUPPORT CLERK

1. Assist Dose Assessment Coordinator as directed.
2. Update status boards as directed.

POSITION 66
RADIO OPERATOR
"EOF Dispatcher"

1. Ensure all equipment is operational.
2. Monitor and log locations of any team already dispatched from the TSC.
3. Interface with Rad Data Coordinator to continually update and move field teams.
4. Keep Rad Data Coordinator informed of locations and data collected by field teams.
5. Periodically brief teams regarding plant conditions and significant events.

POSITION 68
PUBLIC INFORMATION TECHNICAL ASSISTANT
"Public Information Technical Assistant"

1. Provide interpretation of technical information to the public information officer.
2. Review plant data using computer.
3. Review the accuracy of news releases.

Public Information Group

1. Assist in facility set-up. (Group)
2. Review plant status logs and information to update Joint News Center on emergency status. (Technical Assistant)
3. Draft news releases or review JNC drafts prior to getting Emergency Director's approval. (Group)
4. Telecopy approved news releases to JNC. (Public Information Liaison)
5. Maintain communication with JNC. (Group)

POSITION 69
PUBLIC INFORMATION LIAISON TO TSC/EOF

The position of EOF/TSC Public Relations Liaison will be the Public Relations Department representative at the Emergency Operations Facility or Technical Support Center. The responsibilities of the EOF/TSC PR Liaison will include:

1. Promptly relaying current information from the EOF/TSC to the JNC.
2. Responding to questions from the JNC on various aspects of the incident (such as plant status, accident management or dose assessment).
3. Ensure all offsite agency news releases are telecopied from the JNC for Emergency Director review and subsequent posting.
4. Securing review of news releases by the Emergency Director to assure technical accuracy.
5. Relay verified information to Joint News Center.
6. Post all NYPA news release on EOF status board after issuance from JNC.

Also complete the following as part of the Public Information Group:

1. Assist in facility set-up in accordance with procedure. (Group)
2. Review plant status logs and information to update Joint News Center on emergency status. (Technical Assistant)
3. Draft news releases or review JNC drafts prior to getting Emergency Director's approval of them. (Group)
4. Telecopy approved news releases to JNC. (Public Information Liaison)
5. Maintain communication with JNC on dedicated line. (Group)

POSITION 70
TECHNICAL BRIEFER

The position of Technical Briefer will be responsible for providing more detailed technical information to news media in order to supplement the functions of the Power Authority spokesperson. Together, the responsibilities of the Technical Briefer will include:

1. Assuring technical accuracy of information received at the JNC and used by the Power Authority spokesperson or other personnel.
2. Providing technically accurate information on the incident and plant operations to the news media.
3. Assist in the preparation of news releases to ensure technical accuracy.

POSITION 71
JNC DIRECTOR

The position of JNC Director will be filled by the plant Manager of Communications or his designee when circumstances warrant establishment of the position. Upon direction by the Director, Public Information, he will supervise and direct those operations of the JNC which are involved with the flow of information from the plant to the staff at the JNC. The responsibilities of the JNC Director include:

1. Supervising the preparation of statements and news releases and distribution to the press and to public officials.
2. Maintaining communications between the JNC and other emergency facilities and assuring the appropriate flow of information.
3. Maintaining communications and coordinating the activities between the JNC and the Power Authority Headquarters Office.
4. Coordinating information and briefings with federal, state and local emergency preparedness groups and others located at the JNC.
5. Supervising the activities of the JNC Administrative Manager who will be directly responsible for all administrative functions not involved in the immediate flow of information from the plant to the news media at the JNC.
6. Coordinating information with Technical Consultants at the JNC.
7. Coordinating the Inquiry Response and Rumor Control Programs with the respective team leaders.

**POSITION 72
COMMUNICATIONS/WRITERS**

The position of the writer will be filled by an Information Specialist or another individual designated by the Power Authority Spokesperson. The primary responsibility of the writer is to draft news releases based on information received at the JNC.

**POSITION 73
INQUIRY RESPONSE & RUMOR CONTROL**

1. The Media Inquiry Response Team will include members of the Public Affairs staff designated from the New York Office or other Power Authority projects in coordination with the state and county. Functions will include responding to inquiries from the media, providing accurate responses or referring inquiries as required. A team leader will be appointed by the JNC Director and state spokesperson to coordinate Media Inquiry Response activities.

Each team member will be supplied with the information and materials need to handle inquiries. Team members will read the prepared statements and give the standard answers provided. They will be authorized to give facts about the Power Authority and plant which are in their data and fact sheet news releases and annual report if requested. In addition, times and locations of press conferences and briefings, as well as names and telephone numbers of appropriate contacts in other agencies, may be supplied to the media. The responsibilities of the Media Inquiry Response team will include:

- a. Logging all contacts including time of inquiry, identity, affiliation and telephone number of the caller, and nature of the inquiry and response.
- b. Providing standard response when appropriate.
- c. Referring inquiries requiring further elaboration or special response to the appropriate source.
- d. Returning phone calls as soon as feasible with consideration given to deadlines of individual media.

POSITION 73
INQUIRY RESPONSE & RUMOR CONTROL
(continued)

2. The Rumor Control team will identify and correct inaccurate or misleading information. This will be accomplished by monitoring news broadcasts on radio and television, reviewing newspapers, and through telephone lines which can be used to provide answers to questions or confirm information. Off-air monitoring and Rumor Control telephone equipment is installed at the JNC.
3. The Rumor Control team will include individuals assigned by the JNC Director from the Power Authority Public Affairs staff. State and county representatives, as well as Niagara Mohawk Power Corporation staff, may also be assigned to the team. A team leader will be appointed by the JNC Director or alternate in coordination with the New York State spokesperson.
4. The responsibilities of the Rumor Control team will include:
 - a. Monitoring radio and television broadcasts and newspapers to identify incorrect, inaccurate or misleading information.
 - b. Bringing such information to the attention of the JNC Director for correction.
 - c. Producing taped messages for use on the Rumor Control telephone lines.
 - d. Logging and responding to inquiries from emergency workers or the general public.
 - e. Bringing significant information learned from inquiries (such as recurrent misinformation or trends which are identified) to the attention of the JNC Director.

POSITION 74
ADMINISTRATIVE MANAGER

The position of Administrative Manager will direct all activities and functions at the JNC not directly involved with the flow of information from the plant to the news media. The responsibilities of the Administrative Manager or alternate will include:

1. Supervising administrative functions such as:
 - a. Registration (media, visitors, and participants).
 - b. Clerical services.
 - c. Security.
 - d. Setup and maintenance of JNC facilities.
 - e. Distribution/stocking of news releases.
2. Supervising videotape and photo services, including off-air monitoring.
3. Coordinating auxiliary services such flights, lodging and food services with the Administration and Logistics Manager as described in the Headquarters Emergency Plan and Procedures.

POSITION 76
CLERICAL

Clerical support personnel assigned to the JNC will perform the following functions as assigned by the Administrative Manager:

1. Typing/word processing for news release activities.
2. Photocopy/telecopy support for JNC staff.
3. Distribution of news releases/supporting materials.
4. Registration

Registration personnel will perform the following functions as directed by the Administrative Manager.

- a. Verifying proper identification of all staff, media, and visitors entering the JNC.
- b. Registering all personnel entering the JNC.
- c. Issuing proper color coded identification badges to all individuals.

POSITION 77
SECURITY

JNC Security positions will be filled by FitzPatrick Plant Security Officers assigned by the TSC Security Coordinator. Responsibilities will include:

1. Limiting JNC admission to properly registered reporters, visitors, observers and participants.
2. Controlling access to restricted work areas of the JNC.

POSITION 78
VIDEO/PHOTO SERVICES

At the JNC, photographic and video services will be provided by Power Authority photographers from the Marcy and Niagara projects with assistance from Power Authority Public Affairs personnel and Niagara Mohawk Power Corporation photographic and video services personnel. Responsibilities will include:

1. Videotape recording or photography of all new briefings at the JNC to provide a permanent record.
2. Providing duplication and playback capability for videotapes of earlier briefings.
3. Assisting off-air monitoring of radio and television news broadcasts and bulletins concerning the emergency.

POSITION 81
RAD ENGINEER SUPPORT

1. Assist in facility activation.
2. Assist Rad Engineer as directed.
3. Assist Rad Engineer in performing the following:
 - a. release rate calculations.
 - b. dose calculations.
 - c. PAR determination.

POSITION 82
NEW YORK STATE LIAISON

1. Report to the New York State Emergency Operations Center (NYS EOC) and contact the JAF EOF/TSC for conditions briefing.
2. Assist NYS personnel in the interpretation of plant data.
3. Assist NYS personnel in reconciling any apparent discrepancies in plant data.

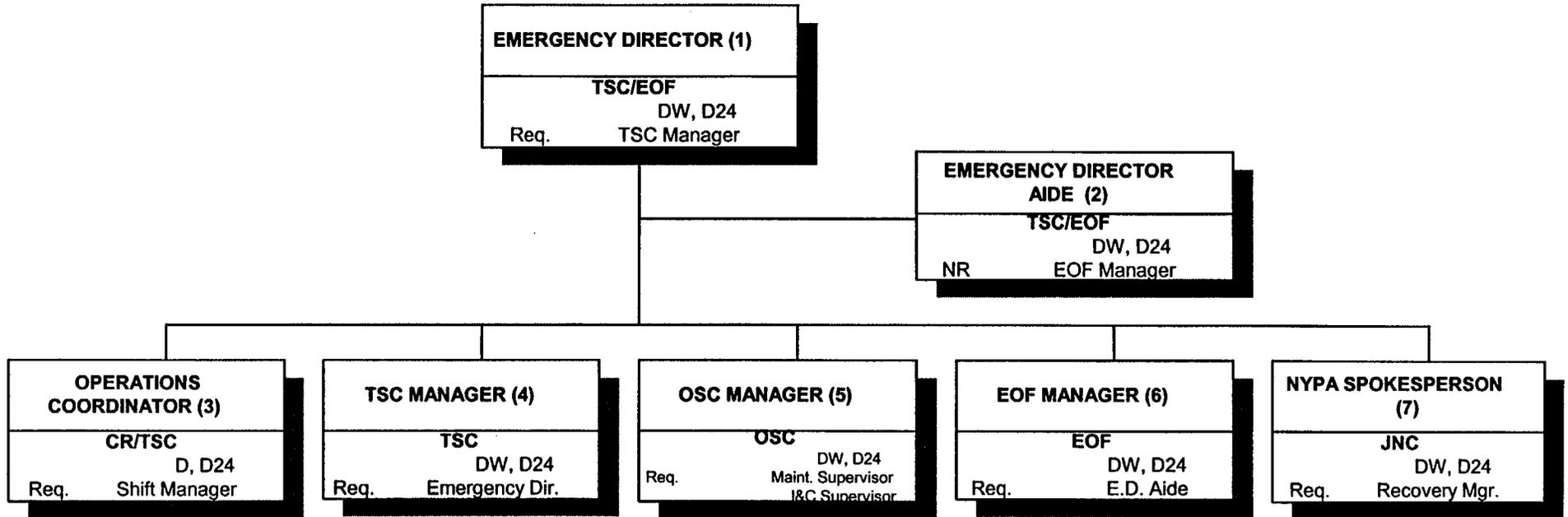
POSITION 83
PARAMETER ASSESSMENT ADVISOR

1. Determine EPIC and instrument availability
2. Obtain and trend parameter data.
3. Forecast parameter data.

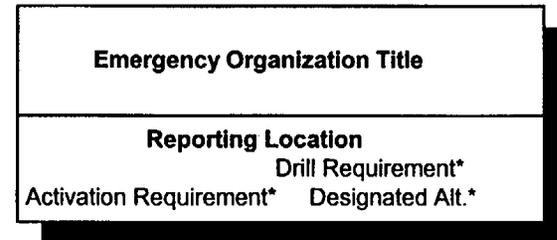
POSITION 84
SYSTEM ASSESSMENT ADVISOR

1. Conduct system assessments.
2. Determine RPV flow assistance and RPV breach signature.
3. Assist with forecasting parameter trends.

EMERGENCY AUGMENTED FACILITY LEADS

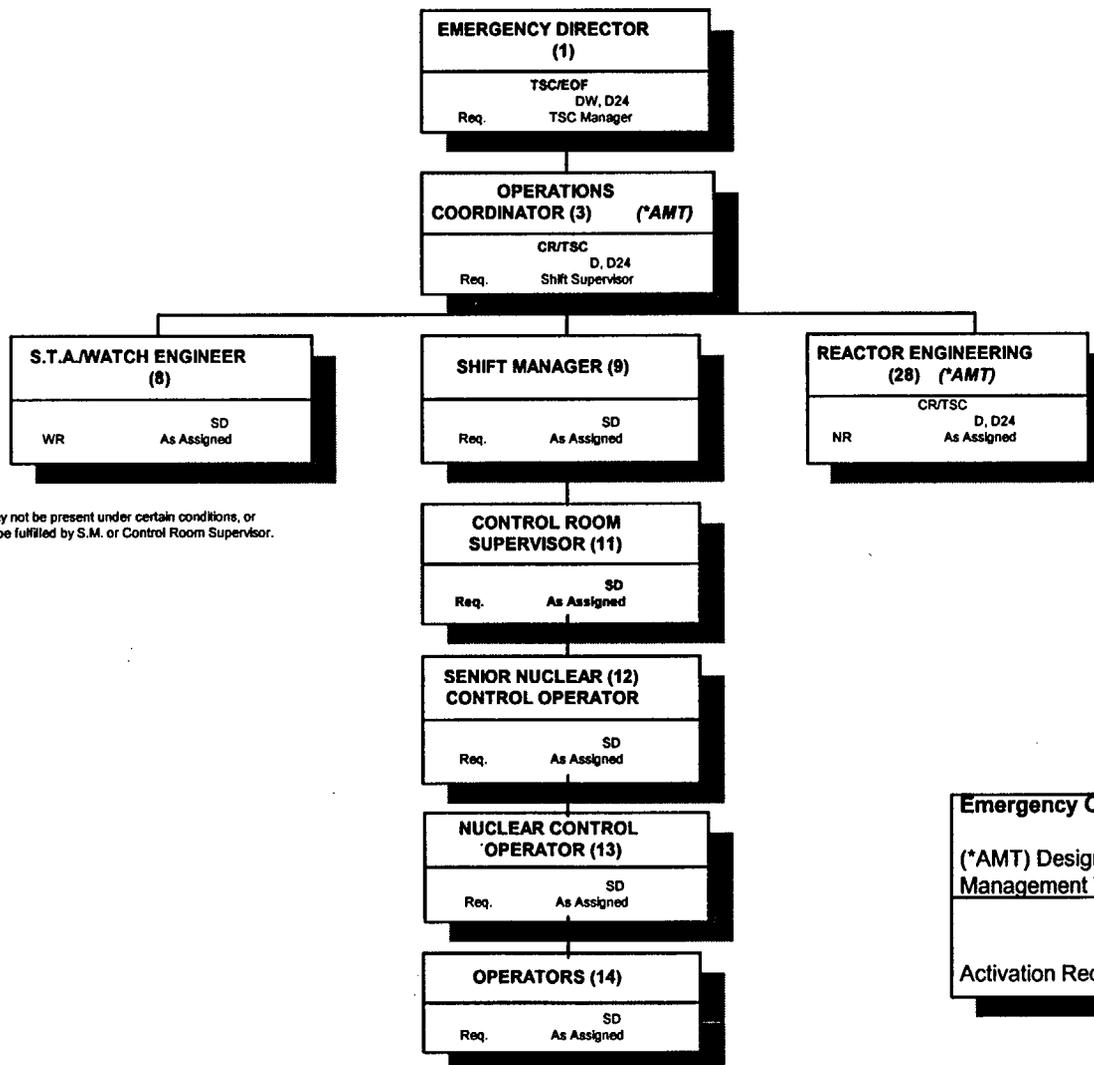


LEGEND



*Explanation found in SAP-20, pages 46-52.

CR Emergency Augmented Staff

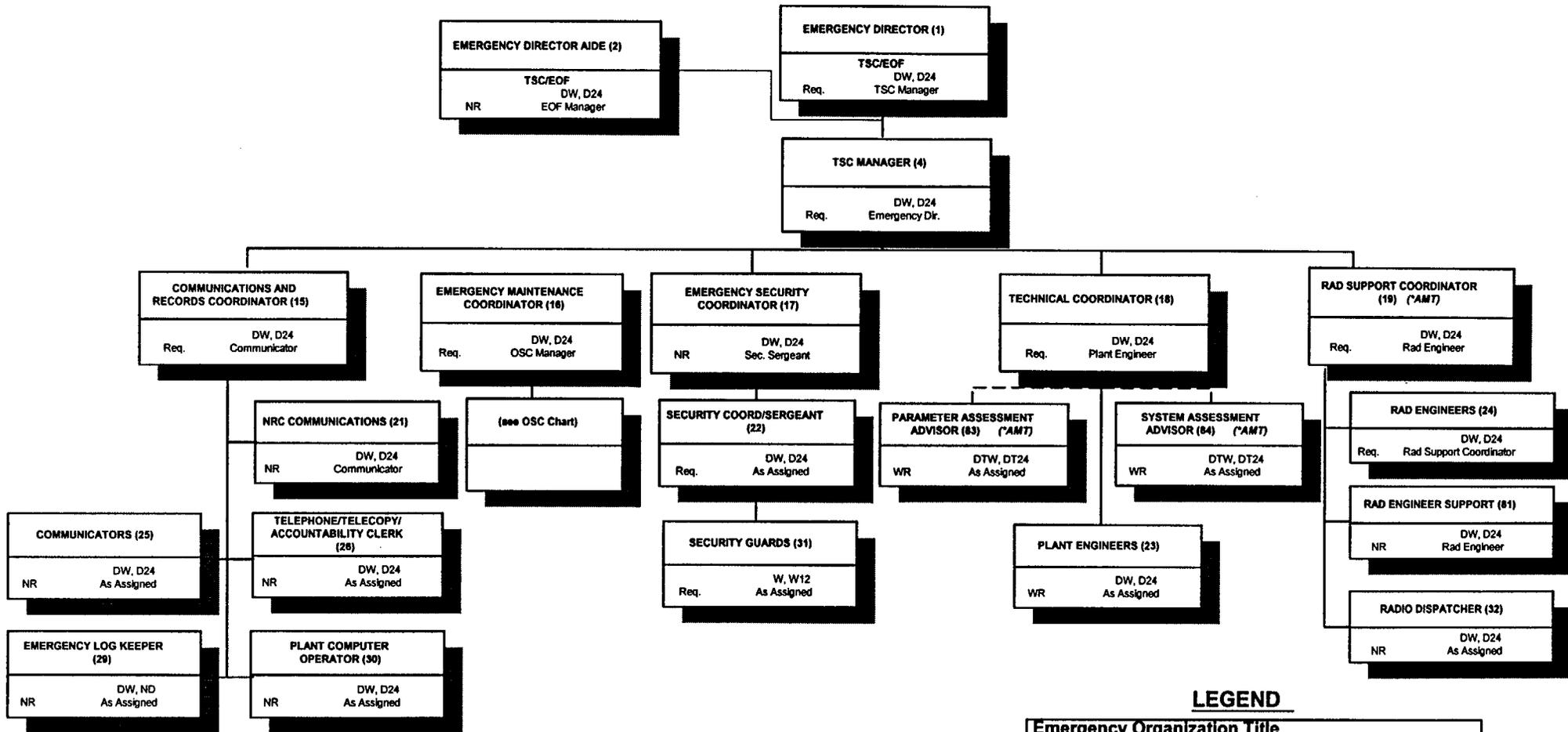


S.T.A. may not be present under certain conditions, or role may be fulfilled by S.M. or Control Room Supervisor.

LEGEND

Emergency Organization Title	
(*AMT) Designates part of the Accident Management Team	
Drill Requirement	Designated Alt.
Activation Requirement	

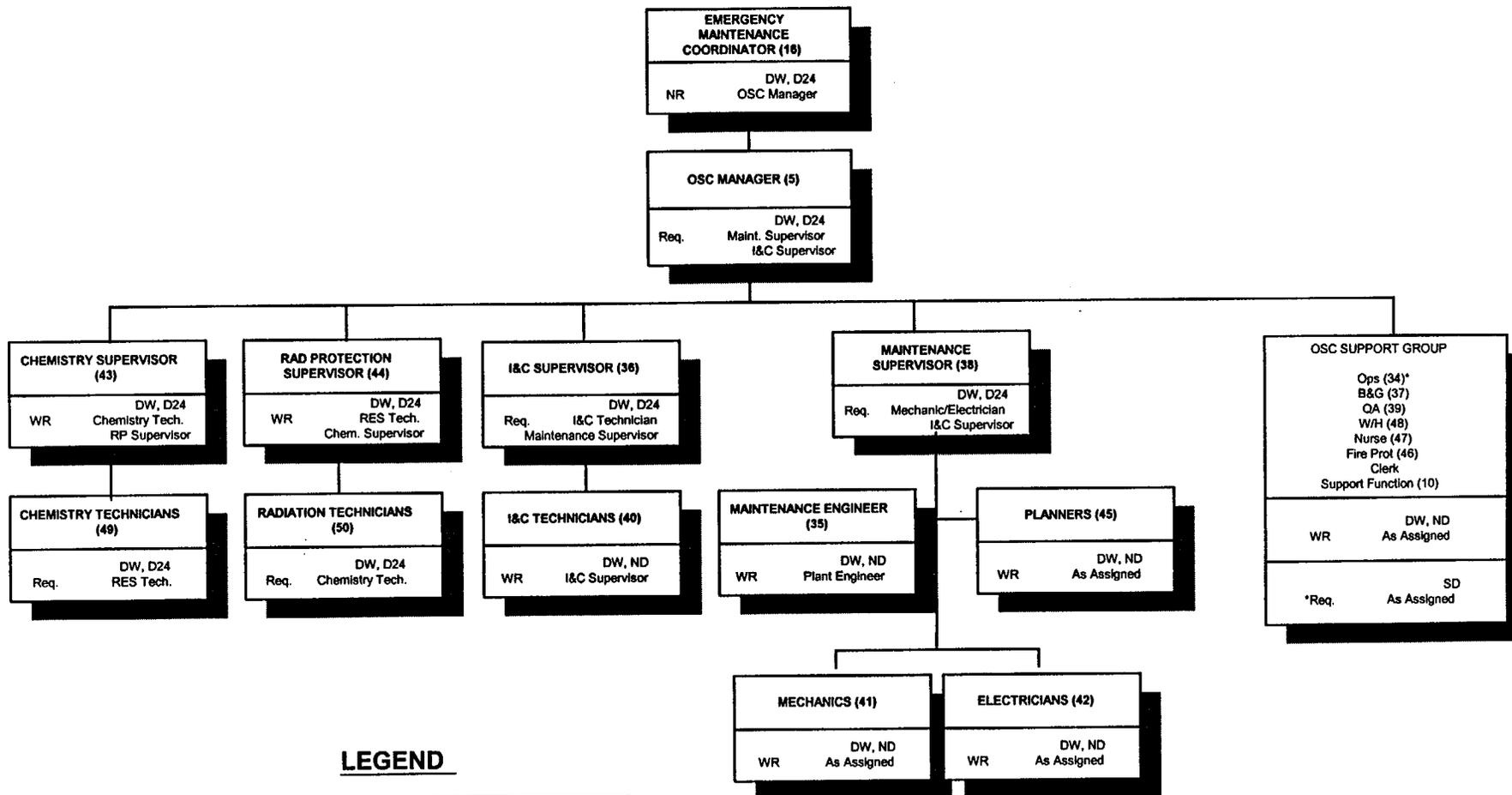
ORGANIZATION CHARTS AND LEGEND
TSC Emergency Augmented Staff



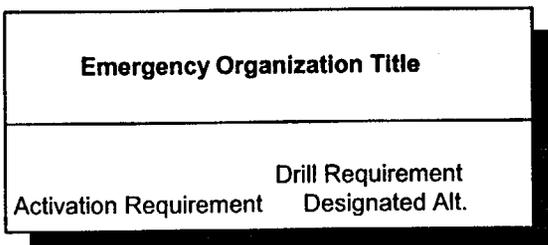
LEGEND

Emergency Organization Title	
(*AMT) Designates part of the Accident Management Team	
Drill Requirement	Designated Alt.
Activation Requirement	Designated Alt.

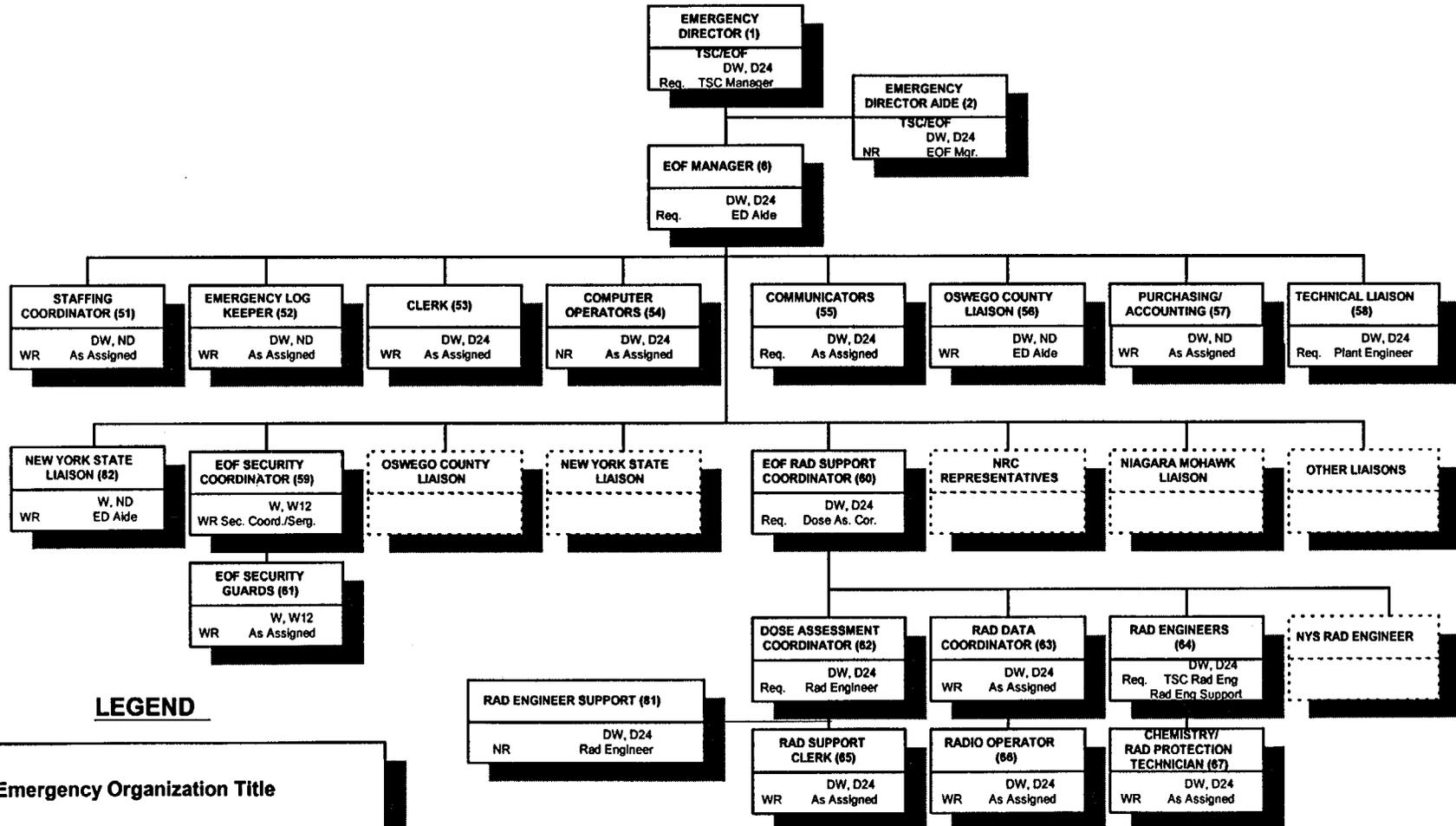
OSC Emergency Augmented Staff



LEGEND



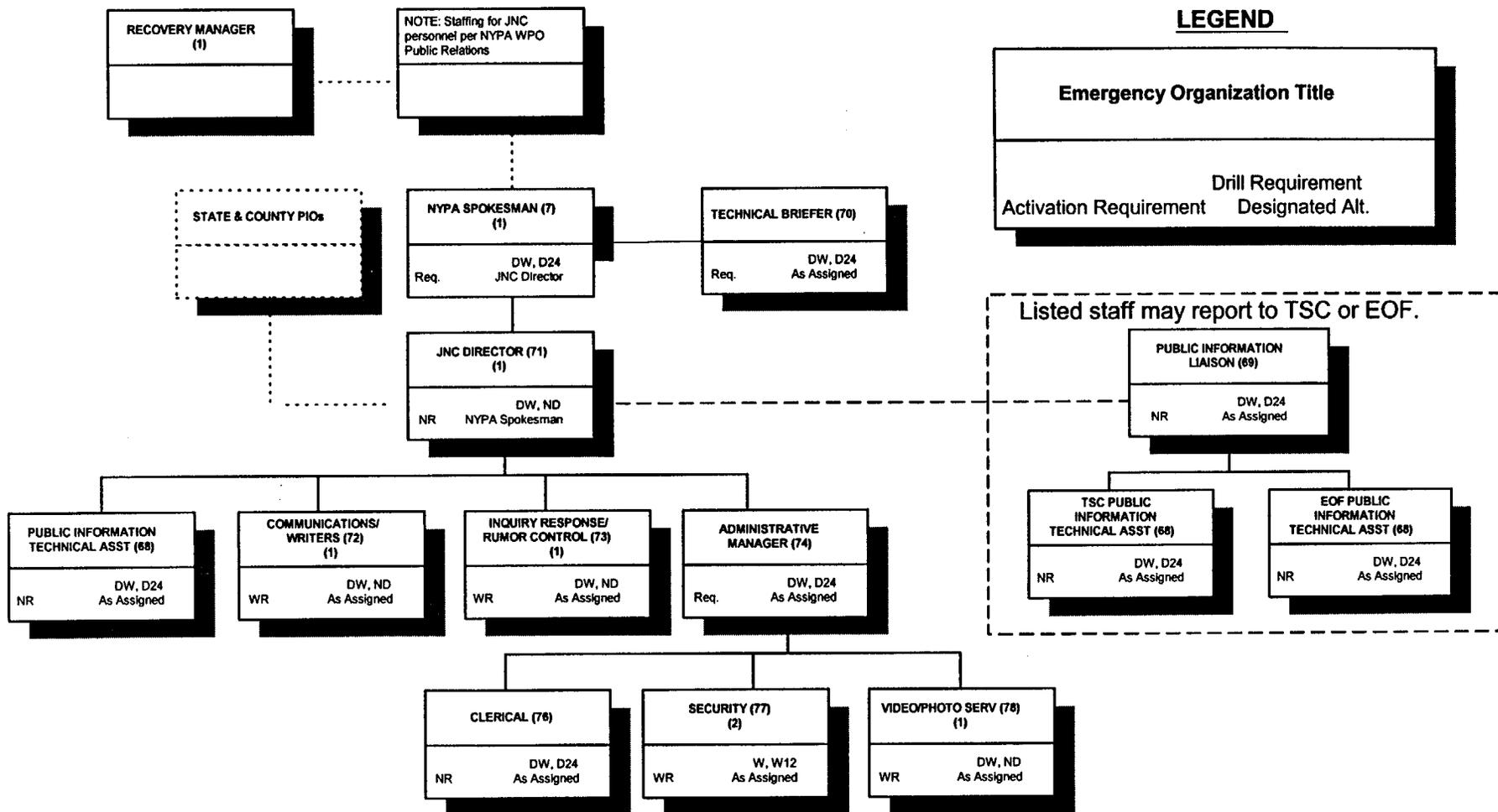
EOF Emergency Augmented Staff



LEGEND

Emergency Organization Title	
Activation Requirement	Drill Requirement Designated Alt.

JNC Emergency Augmented Staff



(1) Indicates staff from WPO, NYO, other projects or agencies
 (2) Disptached from JAFNPP, as requested

Drills and Walk-Thrus

- DW, D24 = Drill and walk-thru before functioning in position, drill at least once every 24 months thereafter.
- D, D24 = Drill before functioning in position; drill at least every 24 months thereafter.
- DW, ND = Drill and walk-thru before functioning in position; no periodic drill requirement.
- W, W12 = Walk-thru before functioning in position, walk-thru at least every 12 months thereafter.
- SD = Simulator drills for initial and requalification.
- DTW, DT24 = Drill or tabletop and walk-thru before functioning in position, drill or tabletop at least every 24 months.

Reporting Locations

- CR = Control Room
- TSC = Technical Support Center
- OSC = Operational Support Center
- EOF = Emergency Operations Facility
- JNC = Joint News Center
- TRNG = Training Building at JAF
- SEC = Security Post at JAF

Activation Requirements

- Req = Required for facility to be staffed
- WR = As needed by facility manager only
- NR = Not required but preferred for facility to be declared staffed

- NOTE** ⁽¹⁾: SAM training may include tabletop drills as training at a frequency to be determined by the EPC.
- ⁽²⁾: Operations Coordinators may attend either Emergency Director/Coordinator or LO/STA training.
- ⁽³⁾: Successful completion of Emergency Director/Coordinator training satisfies LO/STA training.

ERO TRAINING APPLICABILITIES

POSITIONS	ESSP ERS	EMER ⁽³⁾ DIR/CO ORD	LO/ STA	E- COMM	NLO	RAD ASSES	EDAMS	RC&S	EVAC &ACCT	ER&CA	JNC	TSC WKTH	OSC WKTH	EOF WKTH	JNC WKTH	SIML WKTH	SAM ⁽³⁾	Recov. Procds	RADIO OPER	RESP
CONTROL ROOM																				
CONTROL ROOM SUPERVISOR	XX		XX																	XX
LIC. OPER	XX		XX														XX			XX
NON-LIC. OPERATOR	XX				XX											XX				XX
OPS COORD ⁽²⁾	XX	XX	XX														XX			XX
REACTOR ENG	XX																XX			XX
SHIFT MGR.	XX		XX														XX			XX
SHIFT TECH ADVISOR	XX		XX														XX			XX
WASTE MANAGEMENT	XX																			
EMERGENCY OPERATIONS FACILITY (EOF)																				
CHEM/RP TECH	XX							XX								XX				
CLERK	XX													XX						
COMMUNICATOR	XX			XX										XX						
COMPUTER OPERATOR	XX													XX						
DOSE ASSESS COORD	XX					XX	XX							XX						
EMERGENCY LOG KEEPER	XX													XX						
EOF MANAGER	XX	XX												XX						
EOF SEC COORDINATOR	XX								XX					XX						
NY STATE LIAISON	XX	XX												XX						

ERO TRAINING APPLICABILITIES

POSITIONS	ESSP ERS	EMER ⁽³⁾ DIR/CO ORD	LO/ STA	E- COMM	NLO	RAD ASSES	EDAMS	RC&S	EVAC &ACCT	ER&CA	JNC	TSC WKTH	OSC WKTH	EOF WKTH	JNC WKTH	SIML WKTH	SAM (3)	Recov. Procds	RADIO OPER	RESP
EMERGENCY OPERATIONS FACILITY (EOF) (Cont)																				
OSWEGO CO LIAISON	XX	XX												XX						
PURCHASING/ACC OUNT	XX													XX						
RAD DATA COORDINATOR	XX					XX								XX						
RAD ENGINEER	XX					XX	XX							XX						
RAD ENG. SUPPORT	XX					XX								XX						
RAD SUPPORT CLERK	XX													XX						
RAD SUPPORT COORDINATOR	XX					XX	XX							XX						
RADIO OPER	XX													XX					XX	
STAFFING COORDINATOR	XX													XX						
TECHNICAL LIAISON	XX													XX						
PUBLIC INFO TECH ASST	XX										XX			XX						
JAF SITE																				
ACCTY SUPV - TRNG BLDG	XX																			
SEC. COORD /SERGEANT	XX								XX											XX
NUC SEC GUARD	XX								XX					XX	XX					XX

ERO TRAINING APPLICABILITIES

POSITIONS	ESSP ERS	EMER ⁽³⁾ DIR/CO ORD	LO/ STA	E- COMM	NLO	RAD ASSES	EDAMS	RC&S	EVAC &ACCT	ER&CA	JNC	TSC WKTH	OSC WKTH	EOF WKTH	JNC WKTH	SIML WKTH	SAM (1)	Recov. Procds	RADIO OPER	RESP
JOINT NEWS CENTER (JNC)																				
ADMIN MANAGER	XX										XX				XX					
CLERICAL	XX										XX				XX					
INQUIRY RESPONSE/ RUMOR CONTROL	XX										XX				XX					
NYPA SPOKESPERSON/J NC DIRECTOR	XX										XX				XX					
TECHNICAL BRIEFER	XX										XX				XX					
PUBLIC INFO TECHNICAL ASST	XX										XX				XX					
VIDEO/PHOTO SERVICES	XX										XX				XX					
OPERATIONAL SUPPORT CENTER (OSC)																				
B&G - ATTENDANT/SR/M ECH.	XX												XX							XX
CHEMISTRY - SUPV	XX					XX							XX							
CHEMISTRY - TECHNICIAN	XX							XX					XX			XX				XX
CLERK	XX												XX							
ELECTRICIAN	XX									XX			XX							XX
FIRE PROT SUPERVISOR	XX									XX			XX							XX

ERO TRAINING APPLICABILITIES

POSITIONS	ESSP ERS	EMER ⁽³⁾ DIR/CO ORD	LO/ STA	E- COMM	NLO	RAD ASSES	EDAMS	RC&S	EVAC &ACCT	ER&CA	JNC	TSC WKTH	OSC WKTH	EOF WKTH	JNC WKTH	SIML WKTH	SAM (1)	Recov. Procds	RADIO OPFR	RESP
OPERATIONAL SUPPORT CENTER (OSC) (Cont)																				
I&C - SUPV/TECH	XX									XX			XX							XX
I&C - TOOL ROOM ATTEN.	XX												XX							
IN-PLANT DISPATCHER	XX							XX					XX							
MAINTENANCE ENGINEER	XX									XX			XX							
MAINT SUPV ELECT/MECH	XX									XX			XX							
MAINT TOOL ROOM ATTEND.	XX												XX							
MECHANIC	XX									XX			XX							XX
NURSE	XX												XX							
OSC MANAGER	XX									XX			XX							
PLANNER	XX									XX			XX							
Q.C. SUPERVISOR	XX									XX			XX							
RAD PROT SUPERVISOR	XX							XX					XX							
RAD PROT TECHNICIAN	XX							XX					XX			XX				XX
WAREHOUSE PERSON	XX												XX							
WAREHOUSE SUPERVISOR	XX												XX							
OSC SUPPORT	XX												XX							

ERO TRAINING APPLICABILITIES

POSITIONS	ESSP ERS	EMER ⁽¹⁾ DIR/CO ORD	LO/ STA	E- COMM	NLO	RAD ASSES	EDAMS	RC&S	EVAC &ACCT	ER&CA	JNC	TSC WKTH	OSC WKTH	EOF WKTH	JNC WKTH	SIML WKTH	SAM ⁽¹⁾	Recov. Procds	RADIO OPER	RESP
RECOVERY ORGANIZATION																				
RECOVERY MANAGER																			XX	
RECOVERY SUPPORT GROUP MGR																			XX	
TECHNICAL SUPPORT CENTER (TSC)																				
COMMUNICATOR/ RECORDS COOR	XX			XX								XX								
COMMUNICATOR	XX			XX								XX								
COMPUTER OPERATOR	XX											XX								
EMERG DIR. AIDE	XX	XX										XX		XX						
EMERGENCY DIR/TSC MGR ALT	XX	XX										XX		XX						
EMERGENCY LOG KEEPER	XX											XX								
EMERGENCY MAINTENANCE COORD	XX									XX		XX								
NRC COMMUNICATOR	XX			XX								XX								
PARAMETER ASSESSMENT ADVISOR	XX											XX					XX			
PLANT ENGINEER/ ELEC/MECH	XX											XX								

ERO TRAINING APPLICABILITIES

POSITIONS	ESSP ERS	EMER ⁽³⁾ DIR/CO ORD	LO/ STA	E- COMM	NLO	RAD ASSES	EDAMS	RC&S	EVAC &ACCT	ER&CA	JNC	TSC WKTH	OSC WKTH	EOF WKTH	JNC WKTH	SIML WKTH	RAM (1)	Recov Procds	RADIO OPER	RESP
TECHNICAL SUPPORT CENTER (TSC) (Cont)																				
PLANT ENGINEER - PROCUREMENT	XX											XX								
PUBLIC INFO LIAISON	XX										XX	XX		XX						
TSC PUBLIC INFORMATION TECHNICAL ASSTISTANT	XX										XX	XX								
RAD ENGINEER	XX					XX	XX					XX								
RAD ENGINEER SUPPORT	XX					XX						XX								
RAD SUPPORT COORD	XX					XX	XX					XX					XX			
RADIO DISPATCHER	XX							XX				XX								
EMERGENCY SEC. COORD	XX								XX			XX								
SYSTEM ASSESSMENT ADVISOR	XX											XX					XX			
TECHNICAL COORDINATOR	XX	XX										XX								
TELEPHONE/ TELECOPY/ ACCOUNT	XX											XX								
TSC MGR/EMERGENCY DIR ALT.	XX	XX										XX								
TSC MANAGER AIDE	XX	XX										XX								

ABBREVIATIONS & ACRONYM TABLE

ESS PERS	ESSENTIAL PERSONNEL TRAINING
EMER DIR/COORD	EMERGENCY DIRECTOR & COORDINATOR TRAINING
LO/STA	LICENSED OPERATOR & SHIFT TECHNICAL ADVISOR TRAINING
E-COMM	EMERGENCY COMMUNICATIONS TRAINING
NLO	NON-LICENSED OPERATOR TRAINING
RAD ASSES	RADIOLOGICAL ASSESSMENT PERSONNEL TRAINING
EDAMS	EDAMS COMPUTER APPLICATION
RC&S	RADIOLOGICAL CONTROLS AND SURVEYS TRAINING
EVAC & ACCT	EMERGENCY ACCESS CONTROL, EVACUATION AND ACCOUNTABILITY TRAINING
ER&CA	EMERGENCY REPAIR & CORRECTIVE ACTIONS TRAINING
JNC	JOINT NEWS CENTER TRAINING
TSC WLKTH	TECHNICAL SUPPORT CENTER WALKTHROUGH
OSC WLKTH	OPERATIONAL SUPPORT CENTER WALKTHROUGH
EOF WLKTH	EMERGENCY OPERATIONS CENTER WALKTHROUGH
JNC WLKTH	JOINT NEWS CENTER WALKTHROUGH
SIML WLKTH	SIMULATOR WALKTHROUGH
SAM	SEVERE ACCIDENT MANAGEMENT
RESP	Respiratory Protection

NOTE

- (1): SAM training may include tabletop drills as training at a frequency to be determined by the EPC.
- (2): Operations Coordinators may attend either Emergency Director/Coordinator or LO/STA training.
- (3): SUCCESSFUL COMPLETION OF EMERGENCY DIRECTOR/COORDINATOR TRAINING SATISFIES LO/STA TRAINING.