

RESPONSE TO U.S. NUCLEAR REGULATORY COMMISSION GENERIC LETTER 88-11
FOR
THE BRAIDWOOD UNIT 1 REACTOR VESSEL

by

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WORK PERFORMED FOR COMMONWEALTH EDISON COMPANY

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Structural Materials and Reliability
Technology

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RESPONSE TO U.S. NUCLEAR REGULATORY COMMISSION GENERIC LETTER 88-11
FOR THE BRAIDWOOD UNIT 1 REACTOR VESSEL

1. INTRODUCTION

The U.S. Nuclear Regulatory Commission issued Generic Letter 88-11, "NRC Position on Radiation Embrittlement of Reactor Vessel Materials and its Impact on Plant Operations,"[1] on July 12, 1988. The purpose of the generic letter was to call attention to Revision 2 to Regulatory Guide 1.99, "Radiation Embrittlement of Reactor Vessel Materials,"[2] which became effective May 31, 1988.

Within 180 days of the effective date of the Regulatory Guide (November 27, 1988), each licensee must submit the results of a technical analysis relative to the implementation of this new regulation. This analysis includes the following:

- 1) Recalculation of adjusted reference temperature values at the 1/4 and 3/4 reactor vessel wall thickness locations for all potentially limiting materials using Regulatory Guide 1.99 Revision 2 and making a comparison of these values with the reference temperatures that were the basis for the pressure-temperature (P/T) limits in the current plant Technical Specifications.
- 2) Determining the date of applicability of the P/T limits using Regulatory Guide Revision 2.
- 3) If the use of the Revision 2 methodology may result in a modification of the P/T limits contained in the Technical Specification, a proposed schedule must be defined for whatever actions need to be taken, including those required to address an expected restriction in operating flexibility. If such actions are necessary (e.g., new P/T limits, procedure and hardware modifications, etc.), a schedule for completion (fully implemented and operational) is negotiable as

long as all actions are completed within two plant outages (approximately 3 years) after the effective date of Revision 2 to Regulatory Guide 1.99.

- 4) Recalculation of reference temperatures for pressurized thermal shock (RT_{PTS}), if so desired by the licensee, since the NRC is presently considering an amendment to the PTS Rule, 10 CFR 50.61 [3]. This amendment will replace the equations for RT_{PTS} in the PTS Rule with the calculational procedure of Revision 2 to Regulatory Guide 1.99, but will not change the screening criterion.

Following a discussion of the Regulatory Guide 1.99 Revision 2 methodology in section 2, the results of the above technical analysis are then provided. Items 1 and 2 are presented in section 3, and revised RT_{PTS} values (item 4) are shown in section 4. Conclusions are given in section 5 and are followed by the references for the report in section 6.

2. REGULATORY GUIDE 1.99 - REVISION 2 METHODOLOGY [2]

2.1 Surveillance Data Not Available

When credible surveillance data from the reactor in question are not available, calculation of neutron radiation embrittlement of the beltline reactor vessels of light-water reactors should be based on the procedures below.

The adjusted reference temperature (ART) for each material in the beltline is given by the following expression:

$$\text{ART} = \text{Initial } RT_{\text{NDT}} + \Delta RT_{\text{NDT}} + \text{Margin} \quad (1)$$

Initial RT_{NDT} is the reference temperature for the unirradiated material as defined in Paragraph NB-2331 of Section III of the ASME Boiler and Pressure Vessel Code [4]. If measured values of initial RT_{NDT} for the material in question are not available, generic mean values for that class* of material may be used if there are sufficient test results to establish a mean and standard deviation for the class.

ΔRT_{NDT} is the mean value of the adjustment in reference temperature caused by irradiation and should be calculated as follows:

$$\Delta RT_{\text{NDT}} = (\text{CF}) f^{(0.28 - 0.10 \log f)} \quad (2)$$

CF (°F) is the chemistry factor, a function of copper and nickel content. CF is given in tables for welds and base metal (plates and forgings) in the Guide and linear interpolation is permitted to obtain the value. In the table, the "weight-percent copper" and "weight-percent nickel" are the best-estimate values for the material, which will normally be the mean of the measured values for a plate or forging or for weld samples made with the weld wire heat number that matches the critical vessel weld. If such values are not

*The class for estimating initial RT_{NDT} is generally determined, for the welds with which this guide is concerned, by the type of welding flux (Linde 80 or other); for base metal, by the ASTM Standard Specification.

available, the upper limiting values given in the material specifications to which the vessel was built may be used. If not available, conservative estimates (mean plus one standard deviation) based on generic data may be used if justification is provided. If there is no information available, 0.35% copper and 1.0% nickel should be assumed.

The neutron fluence at any depth in the vessel wall, $f(10^{19} \text{ n/cm}^2, E > 1 \text{ MeV})$, is determined as follows:

$$f = f_{\text{surf}} (e^{-0.24x}) \quad (3)$$

where $f_{\text{surf}} (10^{19} \text{ n/cm}^2, E > 1 \text{ MeV})$ is the calculated value of the neutron fluence at the inner wetted surface of the vessel at the location of the postulated defect, and x (in inches) is the depth into the vessel wall measured from the vessel inner (wetted) surface. Alternatively, if dpa calculations are made as part of the fluence analysis, the ratio of dpa at the depth in question to dpa at the inner surface may be substituted for the exponential attenuation factor in equation 3.

The fluence factor, $f(0.28 - 0.10 \log f)$, is determined by calculation or from a figure in the guide.

"Margin" is the quantity, °F, that is to be added to obtain conservative, upper-bound values of adjusted reference temperature for the calculations required by Appendix G to 10 CFR Part 50.

$$\text{Margin} = 2 \sqrt{\sigma_I^2 + \sigma_\Delta^2} \quad (4)$$

Here, σ_I is the standard deviation for the initial RT_{NDT} . If a measured value of initial RT_{NDT} for the material in question is available, σ_I is to be estimated from the precision of the test method. If not, a generic mean values for that class of material are used, σ_I is the standard deviation obtained from the set of data used to establish the mean.

The standard deviation for ΔRT_{NDT} , σ_Δ , is 28°F for welds and 17°F for base metal, except that σ_Δ need not exceed 0.50 times the mean value of ΔRT_{NDT} .

2.2 Surveillance Data Available

When two or more credible surveillance data sets become available from the reactor in question, they may be used to determine the adjusted reference temperature of the beltline materials.

The adjusted reference temperature should be obtained as follows. First, if there is clear evidence that the copper or nickel content of the surveillance weld differs from that of the vessel weld, i.e., differs from the average for the weld wire heat number associated with the vessel weld and the surveillance weld, the measured values of ΔRT_{NDT} should be adjusted by multiplying them by the ratio of the chemistry factor for the vessel weld to that for the surveillance weld. Second, the surveillance data should be fitted using equation 2 to obtain the relationship of ΔRT_{NDT} to fluence. To do so, the chemistry factor, CF, is calculated for the best fit by multiplying each adjusted ΔRT_{NDT} by its corresponding fluence factor, summing the products, and dividing by the sum of the squares of the fluence factors. The resulting value of CF when entered in equation 2 will give the relationship of ΔRT_{NDT} to fluence that fits the plant surveillance data in such a way as to minimize the sum of the squares of the errors.

To calculate the margin in this case, equation 4 is used; the values given there for a σ_{Δ} may be cut in half.

If this procedure gives a higher value of adjusted reference temperature than that given by using the procedures in section 2.1, the surveillance data should be used. If this procedure gives a lower value, either may be used.

For plants having surveillance data that are credible in all respects except that the material does not represent the critical material in the vessel, the calculative procedures in this guide should be used to obtain mean values of shift, ΔRT_{NDT} . In calculating the margin, the value of σ_{Δ} may be reduced from the values given in the last paragraph of section 2.1 by an amount to be decided on a case-by-case basis, depending on where the measured values fall relative to the mean calculated for the surveillance materials.

3. TECHNICAL ANALYSIS

3.1 Identification and Location of Beltline Region Materials

Figure 1 identifies and indicates the location of all beltline region materials for the Braidwood Unit 1 reactor vessel. The beltline region is defined to be "the region of the reactor vessel (shell material including welds, heat affected zones, end plates or forgings) that directly surrounds the effective height of the active core and adjacent regions of the reactor vessel that are predicted to experience sufficient neutron irradiation damage to be considered in the selection of the most limiting material with regard to radiation damage" [2].

3.2 Definition of Plant-Specific Material Properties

The pertinent chemical and mechanical properties of the beltline region shell forgings and girth weld materials of the Braidwood Unit 1 reactor vessel are given in table 1.

The "weight-percent copper"(Cu) and "weight-percent nickel"(Ni) material chemistry values and the initial RT_{NDT} (I) values shown in the table are the same as those used in the Braidwood Unit 1 pressurized thermal shock submittal [5] except as noted.

The chemistry factors and "margin" (M) terms that are also shown in table 1 were determined in accordance with the Regulatory Guide 1.99 Revision 2 methods described in section 2. The chemistry factors and margins are based upon material chemistry measurement information since credible surveillance data are not yet available for the Braidwood Unit 1 reactor vessel materials.

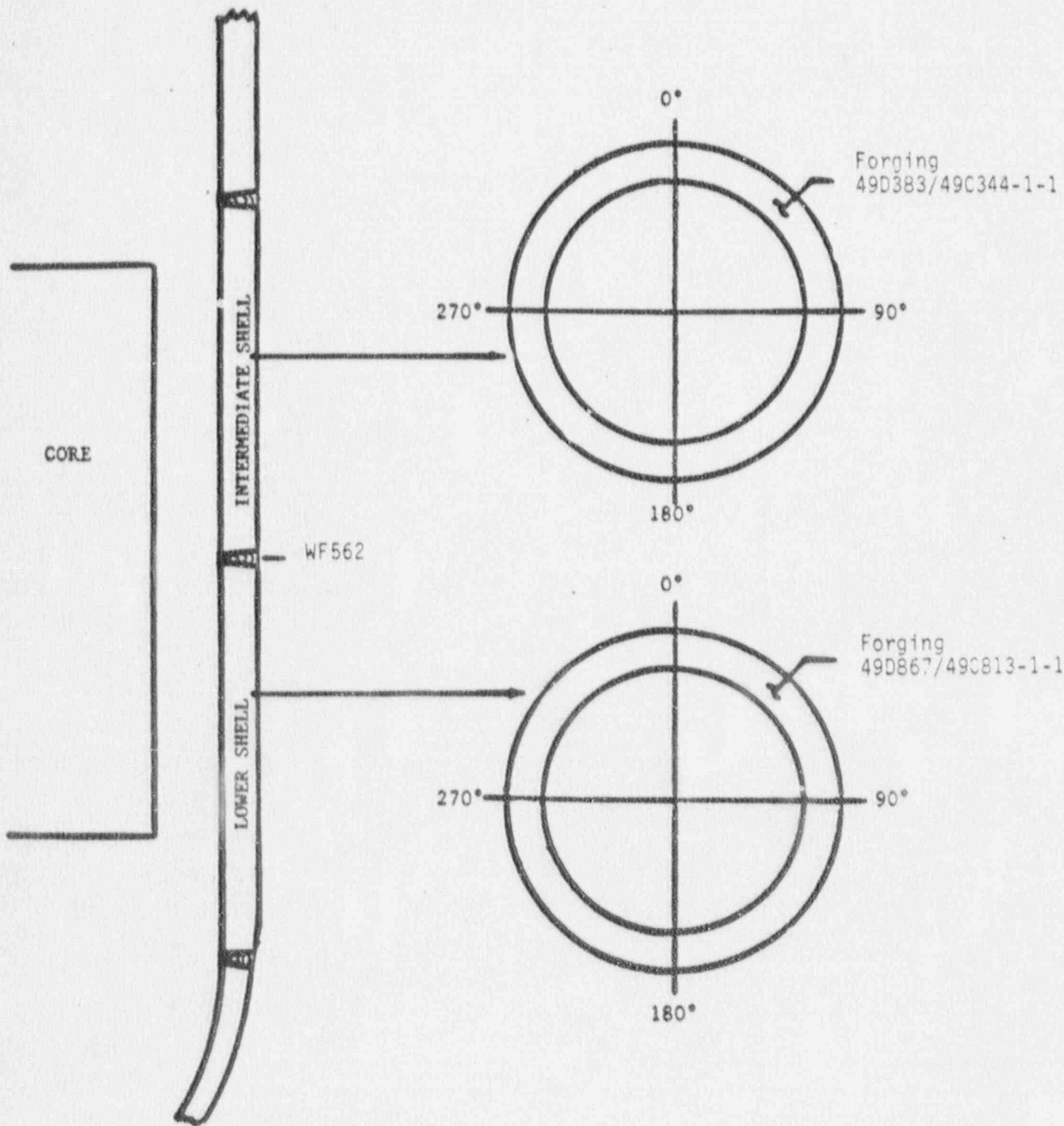


FIGURE 1
 IDENTIFICATION AND LOCATION OF BELTLINE REGION MATERIAL
 FOR THE BRAIDWOOD UNIT 1 REACTOR VESSEL

TABLE 1
BRAIDWOOD UNIT 1 REACTOR VESSEL BELTLINE REGION MATERIAL PROPERTIES

<u>Material</u>	<u>Cu</u> (Wt.%)	<u>Ni</u> (Wt.%)	<u>CF</u>	<u>I^(a)</u> (°F)	<u>M^(b)</u> (°F)
Intermediate Shell Forging 49D383/49C344-1-1	0.05	0.73	31	-30	34
Lower Shell Forging 49D867/49C813-1-1	0.03	0.73	20	-20	34
Circumferential Weld WF 562	0.04 ^(c)	0.67 ^(c)	54	40	56

-
- (a) The initial RT_{NDT} (I) values for the forgings and weld are measured values.
- (b) Maximum margin (M) as per Reg. Guide 1.99, rev. 2; the standard deviation for the initial RT_{NDT} margin term is assumed to be zero since the initial RT_{NDT} values were obtained from conservative (i.e., "upper bound") test results. Smaller values are obtained when $\sigma_{\Delta} = 1/2 \Delta RT_{NDT}$.
- (c) These values from Weld Certification Test Report WF562 (Appendix A) are higher than the values of 0.03% Cu and 0.67% Ni used in the PTS submittal [5].

Drywell Temperature

<u>Time</u>	<u>Temperature</u>	<u>Justification</u>
0700	129°F	Normal
0800	129°F	
		Temperature increase until ESW system is made available for drywell cooling
0802	135°F	Drywell cooling in-service
1200	115°F	

Drywell Pressure

<u>Time</u>	<u>Pressure</u>	<u>Justification</u>
0700	1.9 psig	} Accident events have no effect on drywell pressure
1200	1.9 psig	

Torus Pressure

<u>Time</u>	<u>Pressure</u>	<u>Justification</u>
0700	-0.1 psig	} Normal pressure
1200	0.1 psig	

Torus Water Temperature

<u>Time</u>	<u>Temperature</u>	<u>Justification</u>
0700	76°F	Normal temperature
0802	76°F	
		HPCI/RCIC controlling vessel level and pressure
1200	82°F	

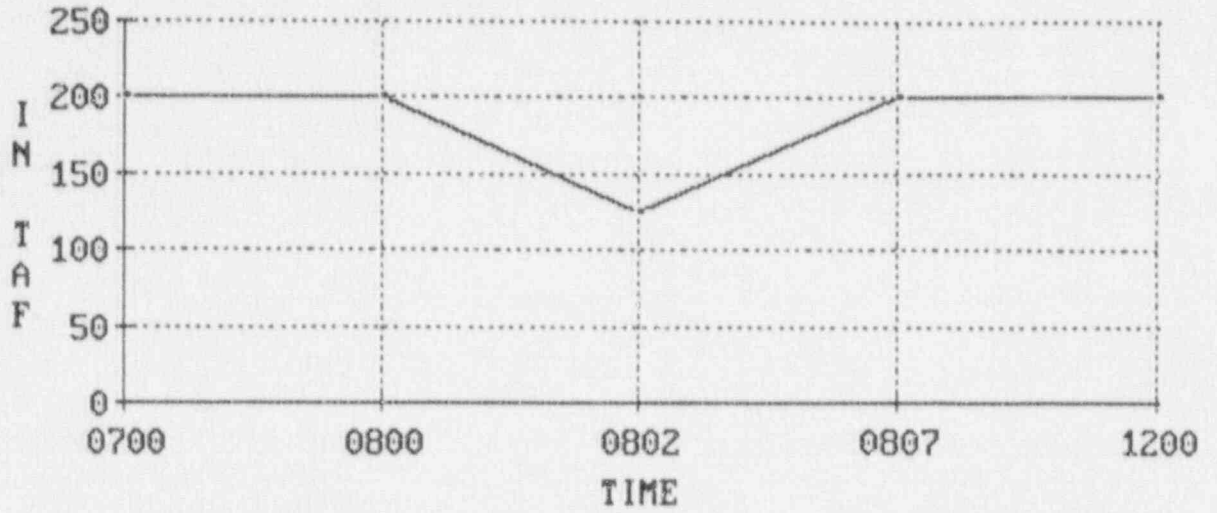
HREM
Turbine Building Exhaust

<u>Time</u>	<u>High Range</u>	<u>Justification</u>
0700	0 mR/hr	Normal HREM reading
0845	0 mR/hr	
		Break in main steam line drain pipe releasing activity in steam tunnel and Turbine Building
0900	0.1 mR/hr	Release through Turbine Building ventilation initiated
0915	0.25 mR/hr	
		Release through ventilation exhaust continues
1130	0.25 mR/hr	Activity in Turbine Building has diminished
1145	0 mR/hr	

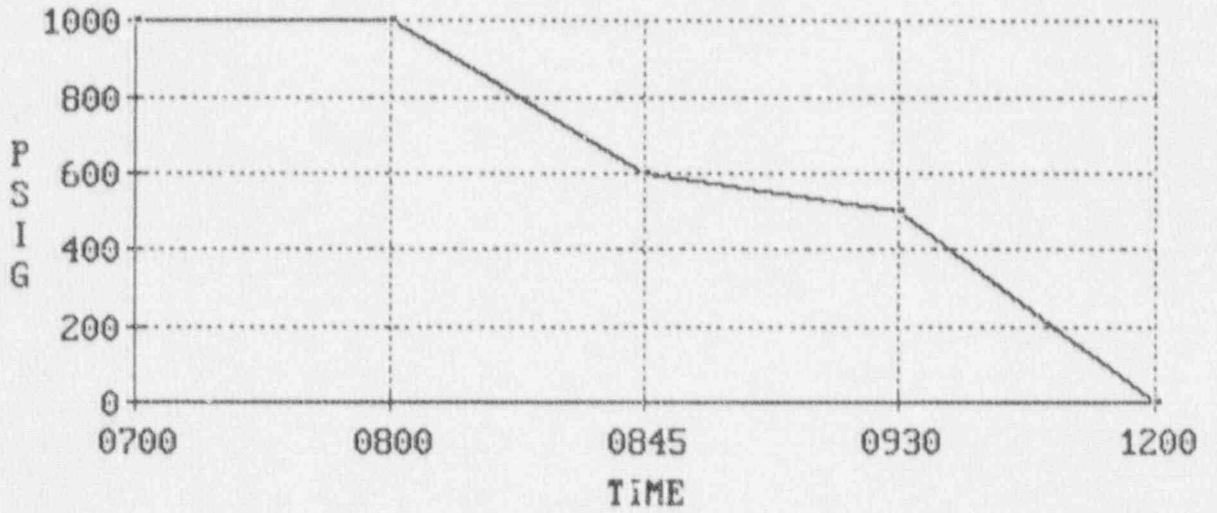
Drywell Radiation Monitor

<u>Time</u>	<u>Dose Rate</u>	<u>Justification</u>
0700	8 R/hr	Normal reading at 100% power
0800	8 R/hr	
		Reactor scram
0802	2 R/hr	Normal reading
1200	1 R/hr	

VESSEL LEVEL



VESSEL PRESSURE



SECTION 3

James A. FitzPatrick Nuclear Power Plant
1990 Partial Scale Emergency Exercise

December 19, 1990

DOSE ASSESSMENT DISPLAYS

The following displays are examples of the type of MMRAS Computer Model outputs used to obtain dose projections. The outputs were obtained for a projected single phase steam line break at 15-minute intervals over the projected release duration.

On the day of the exercise, actual meteorological conditions will be used to determine the direction and concentration of the atmospheric release.

Continuous release, due to Steam Line break.

Isotope	Source Strength	Isotope	Source Strength (Ci/sec)
KR-83M	0.000E-01	MN-54	0.000E-01
KR-85M	2.652E-01	CO-58	0.000E-01
KR-87	5.188E-01	CO-60	0.000E-01
KR-88	7.288E-01	FE-59	0.000E-01
XE-133	2.173E+00	ZN-65	0.000E-01
XE-135M	0.000E-01	SR-89	0.000E-01
XE-135	2.812E-01	SR-90	0.000E-01
XE-138	0.000E-01	SB-125	0.000E-01
I-131	3.200E-03	TE-132	0.000E-01
I-132	5.200E-03	CS-134	0.000E-01
I-133	8.400E-03	CS-136	0.000E-01
I-134	9.200E-03	CS-137	0.000E-01
I-135	7.200E-03	BA-140	0.000E-01
H-3	0.000E-01	LA-140	0.000E-01

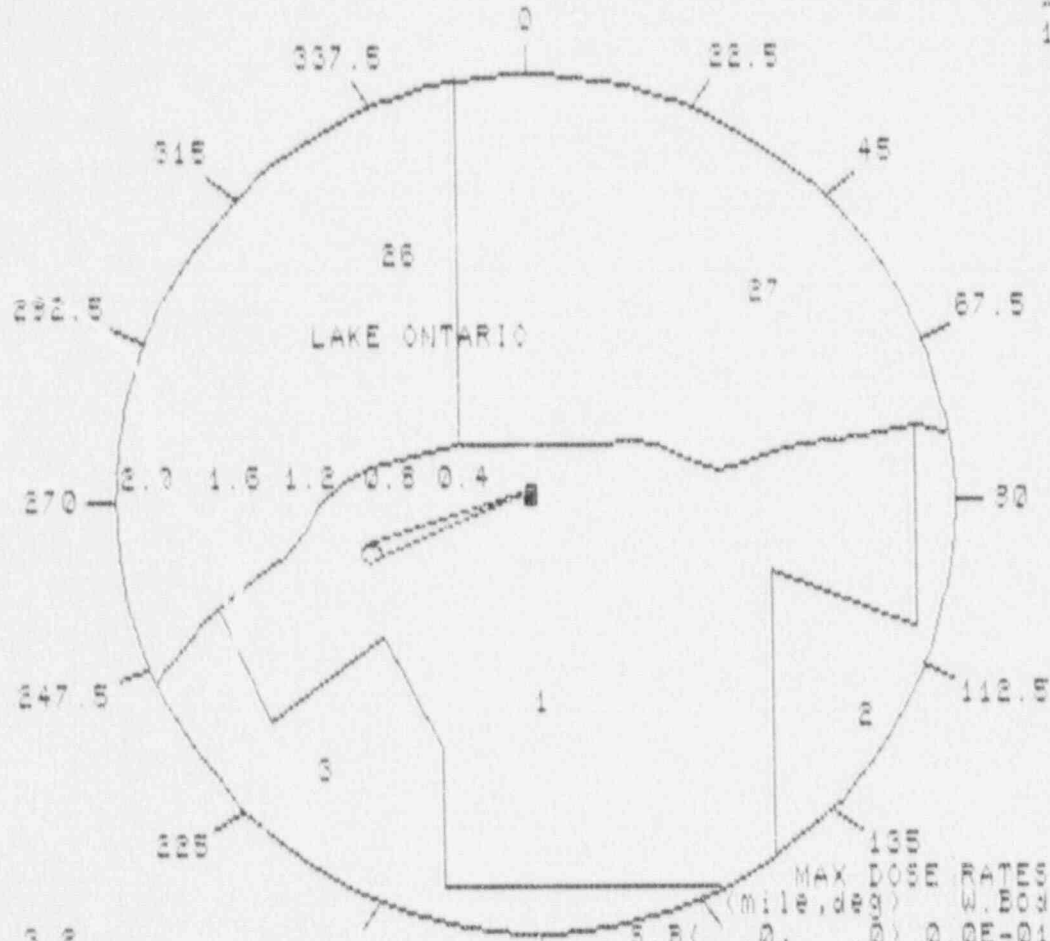
Total release is 4.000E+00 Ci/sec

Do you wish to change total source strength value (Y/N)? ■

PLUME DISPLAY

(REAL TIME)

0-0:15
 11-OCT-90
 12: 4



WS (mph) 5.0
 WD (deg) 30
 VC A 5.0

	MAX	MIN	Avg	STDEV	WIND	WIND	WIND	WIND	WIND
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFF-SITE RECEPTORS

(REAL TIME)

0- 0:15
11-OCT-90

ERPA	Receptor		Dose Rate (mR/hr)		Cumulative Dose (mREM)		
	Distance (Miles)	Direction (Degree)	Gamma	Skin	Whole Body	Skin	Child Thyroid
-----	-----	-----	-----	-----	-----	-----	-----

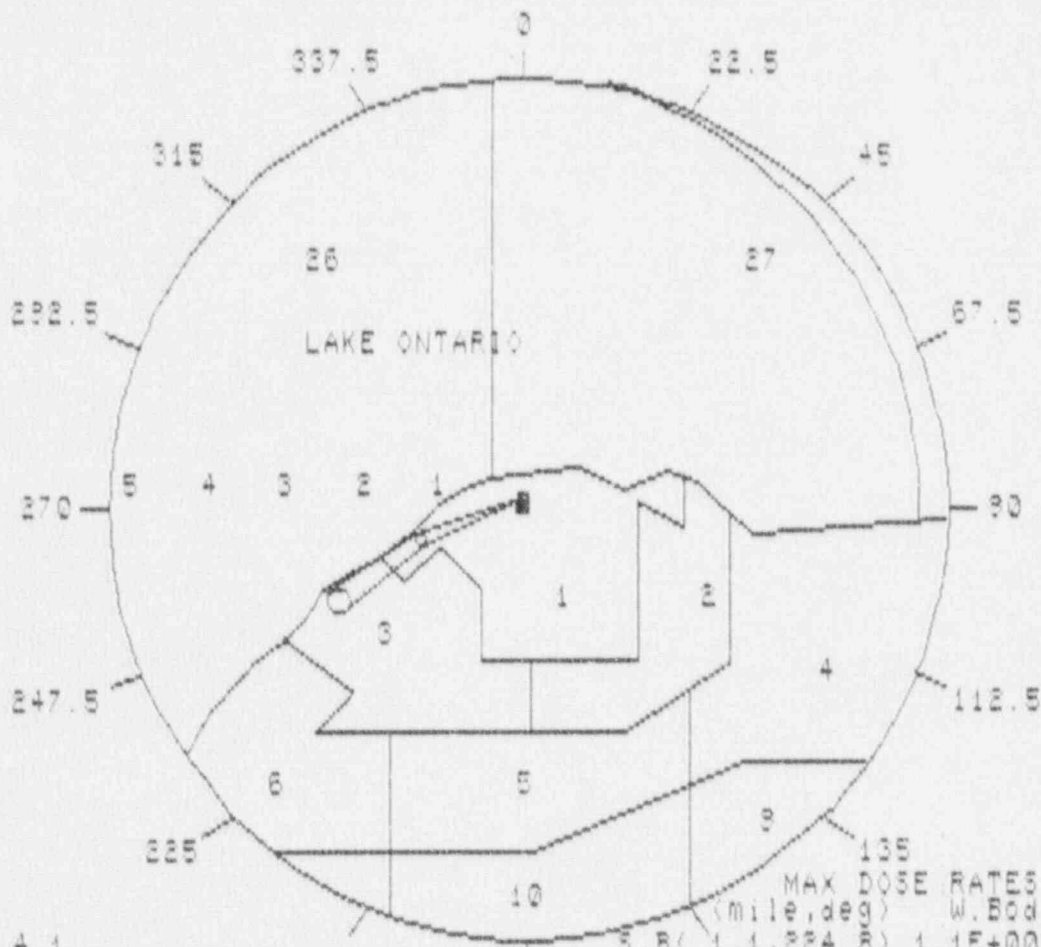
THE GAMMA DOSE RATE IS ACCURATE WITHIN PLUS OR MINUS 100.0 PERCENT

ENTER (1=page one, LINE FEED=page forward, B=page back, M=menu) : █

PLUME DISPLAY

(REAL TIME)

0- 0:30
11-OCT-90
12:22



WS (mph) 4.1
WD (deg) 231
SV A 65 G

	MAX DOSE	RATES	(mREM/Hr)
	(mile, deg)	W. Body	C. Thy.
0.5 MI	(1.1, 231.0)	1.15E+00	1.05E+01
0.5 MI	(1.5, 234.0)	0.33E+01	5.05E+00
1.0 MI	(.0, .0)	0.00E+01	0.00E+01

OFF-SITE RECEPTORS

(REAL TIME)

0- 0:30
11-OCT-90

ERPA	Receptor		Dose Rate (mR/hr)		Cumulative Dose (mREM)		
	Distance (Miles)	Direction (Degree)	Gamma	Skin	Whole Body	Skin	Child Thyroid

2	1	1.5	222.6	.66	1.1	.16	.28	.70
4	1	.8	221.3	1.5	2.5	.38	.62	1.2

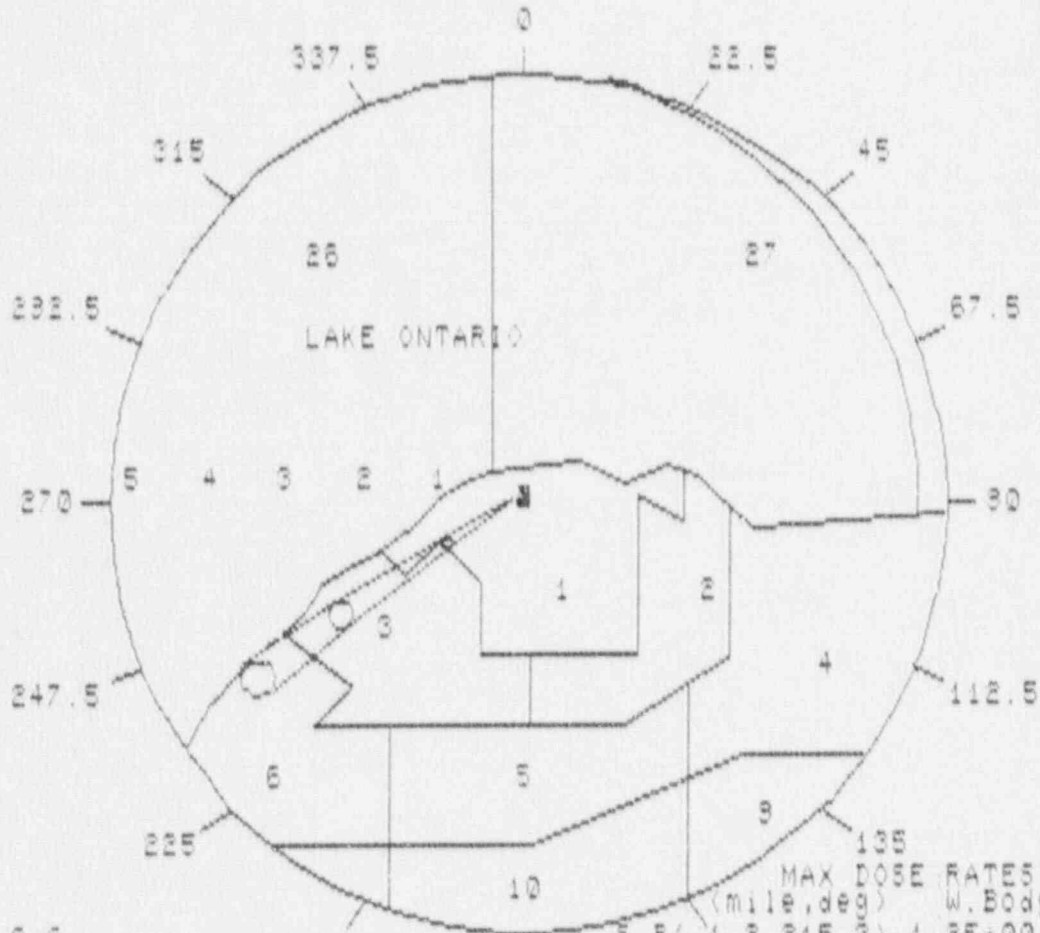
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PLUME DISPLAY

(REAL TIME)

0- 0:45
11-OCT-90
12:37



WS (mph) 3.6
WD (deg) 0.1
SV A 3

	(miles)	MAX	DOSE	WAT	BOYS	(MREM/HR)
10MI	1.0	115.00	1.0	3.00	0.00	7.00
9MI	1.0	115.00	1.0	3.00	0.00	6.00
8MI	1.0	115.00	1.0	3.00	0.00	5.00
7MI	1.0	115.00	1.0	3.00	0.00	4.00
6MI	1.0	115.00	1.0	3.00	0.00	3.00
5MI	1.0	115.00	1.0	3.00	0.00	2.00
4MI	1.0	115.00	1.0	3.00	0.00	1.00
3MI	1.0	115.00	1.0	3.00	0.00	0.00
2MI	1.0	115.00	1.0	3.00	0.00	0.00
1MI	1.0	115.00	1.0	3.00	0.00	0.00

OFF-SITE RECEPTORS

(REAL TIME)

0- 0:45
11-OCT-90

ERPA	Receptor		Dose Rate (mR/hr)		Cumulative Dose (mREM)			
	Distance (Miles)	Direction (Degree)	Gamma	Skin	Whole Body	Skin	Child Thyroid	
2	1	1.5	222.6	.92	1.3	.40	.60	.72
4	1	.8	221.3	0.00E-01	0.00E-01	.38	.62	1.2
5	1	1.0	206.6	1.2	1.7	.31	.43	4.45E-02

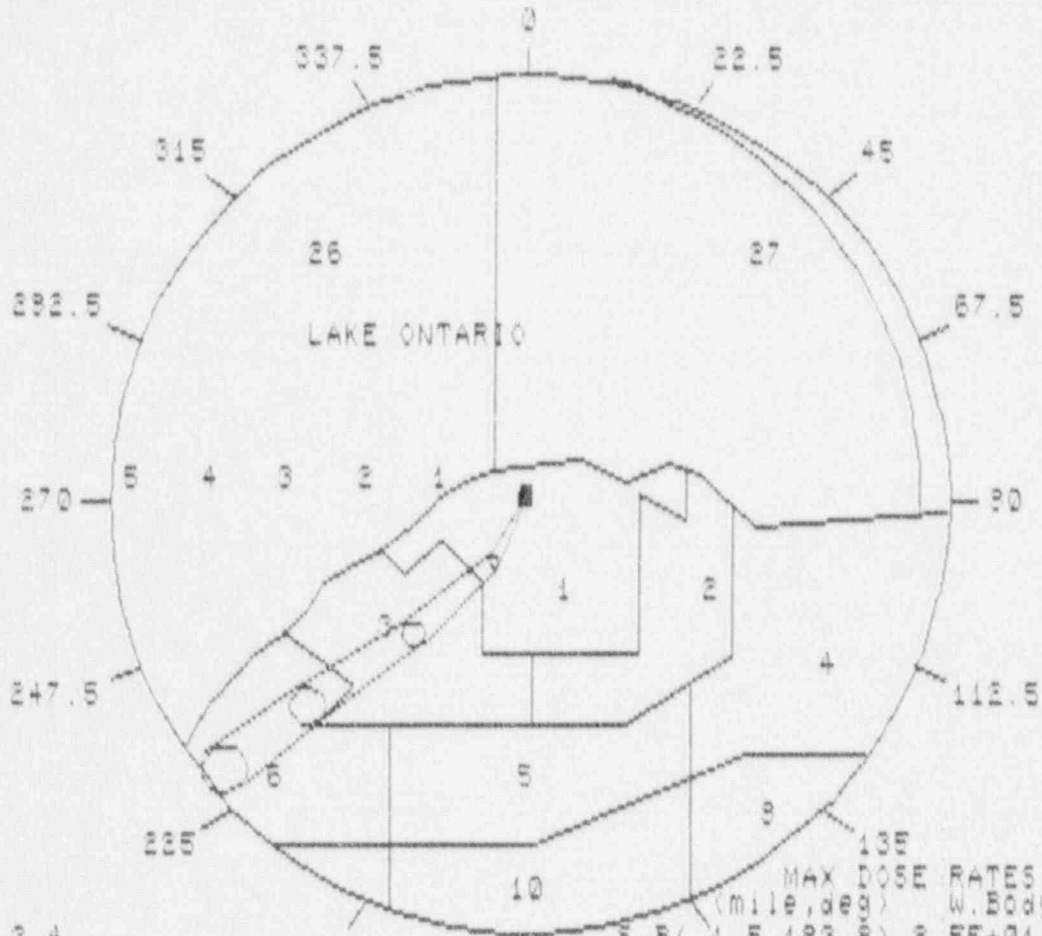
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PLUME DISPLAY

(REAL TIME)

0-1:0
11-OCT-80
12:52



WS (mph) 5.0 0.4
WD (deg) 5.0 0.4
SC 5.0 0.4

	WS (mph)	WD (deg)	SC	MAX DOSE	RATES	(MREM/HR)
0.5 MI	1.0	100	0.0	0.0	0.0	0.0
1.0 MI	1.0	100	0.0	0.0	0.0	0.0
1.5 MI	1.0	100	0.0	0.0	0.0	0.0
2.0 MI	1.0	100	0.0	0.0	0.0	0.0

OFF-SITE RECEPTORS

(REAL TIME)

0- 1: 0

11-OCT-90

ERPA	Receptor		Dose Rate (mR/hr)		Cumulative Dose (mREM)			
	Distance (Miles)	Direction (Degree)	Gamma	Skin	Whole Body	Skin	Child Thyroid	
2	1	1.5	222.6	0.00E-01	0.00E-01	.40	.60	.72
3	1	2.0	201.2	14.	36.	3.4	9.1	59.
4	1	.8	221.3	0.00E-01	0.00E-01	.38	.62	1.2
5	1	1.0	206.6	0.00E-01	0.00E-01	.31	.43	4.45E-02
7	1	1.0	173.6	5.5	8.0	1.4	2.0	2.0
24	3	3.0	209.5	5.7	17.	1.4	4.2	33.
25	3	2.9	208.2	3.1	8.4	.77	2.1	16.
27	3	1.9	205.2	3.4	6.7	.85	1.7	7.4

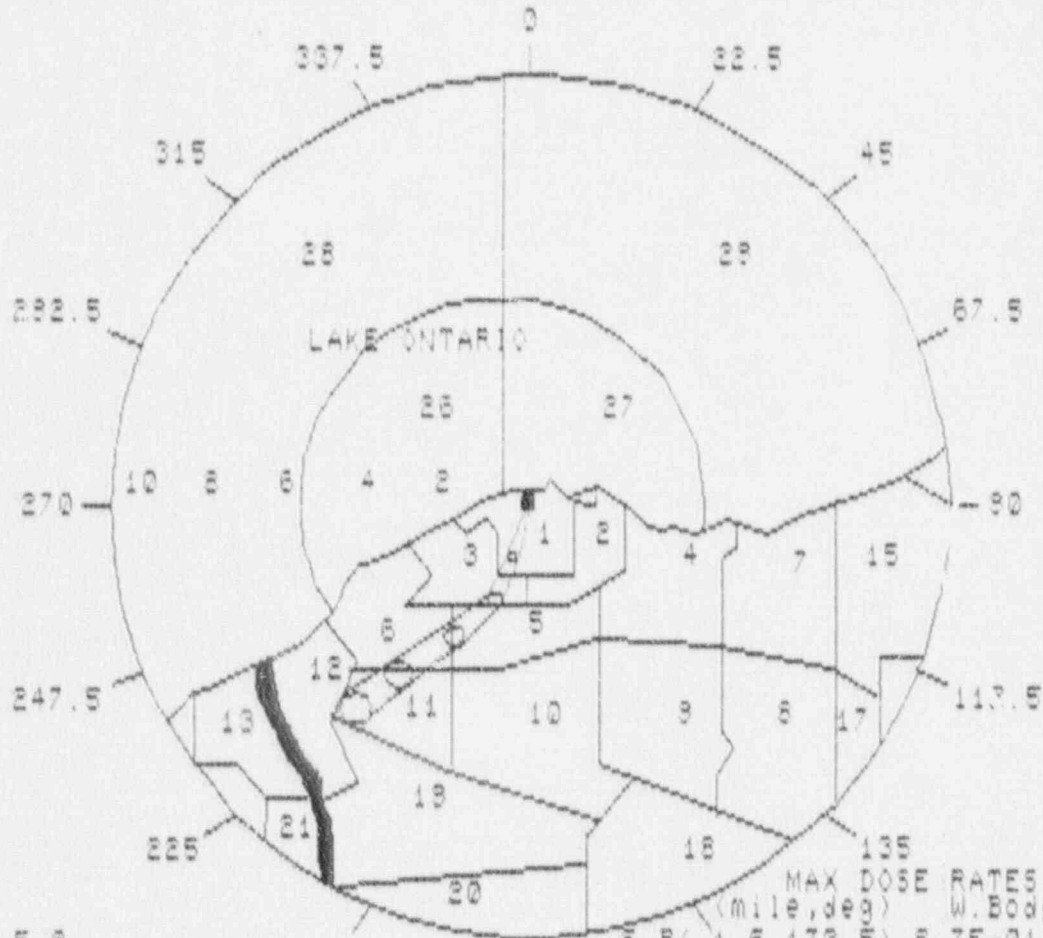
THE GAMMA DOSE RATE IS ACCURATE WITHIN PLUS OR MINUS 100.0 PERCENT

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PLUME DISPLAY

(REAL TIME)

0- 1:15
11-OCT-90
13: 7



WS (mph) 138.8
WD (deg) 133.1
SV A 5h 5

	(Mile)	MAX	DO	SR	RATE	SR	(MREM/HR)
0.5MI	1.00	173.00	0.00	0.00	0.7	0.01	0.00
1.0MI	1.00	177.00	0.00	0.00	0.00	0.01	0.00
4.0MI	4.00	205.00	0.00	0.00	0.00	0.01	0.00
10MI	6.00	200.00	0.00	0.00	0.00	0.01	0.00

OFF-SITE RECEPTORS

(REAL TIME)

0- 1:15
11-OCT-90

ERPA	Receptor		Dose Rate (mR/hr)		Cumulative Dose (mREM)			
	Distance (Miles)	Direction (Degree)	Gamma	Skin	Whole Body	Skin	Child Thyroid	
2	1	1.5	222.6	0.00E-01	0.00E-01	.40	.60	.72
3	1	2.0	201.2	0.00E-01	0.00E-01	3.4	9.1	59.
4	1	.8	221.3	0.00E-01	0.00E-01	.38	.62	1.2
5	1	1.0	206.6	0.00E-01	0.00E-01	.31	.43	4.45E-02
7	1	1.0	173.6	0.00E-01	0.00E-01	1.4	2.0	2.0
24	3	3.0	209.5	0.00E-01	0.00E-01	1.4	4.2	33.
25	3	2.9	208.2	0.00E-01	0.00E-01	.77	2.1	16.
27	3	1.9	205.2	0.00E-01	0.00E-01	.85	1.7	7.4
30	3	2.6	184.9	.52	.81	.13	.20	.33
31	3	2.0	182.3	.67	.97	.17	.24	.17

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OFF-SITE RECEPTORS

(REAL TIME)

0- 1:15
11-OCT-90

ERPA	Receptor		Dose Rate (mR/hr)		Cumulative Dose (mREM)		
	Distance (Miles)	Direction (Degree)	Gamma	Skin	Whole Body	Skin	Child Thyroid
88 11	4.9	210.5	.15	.21	3.72E-02	5.37E-02	6.23E-03

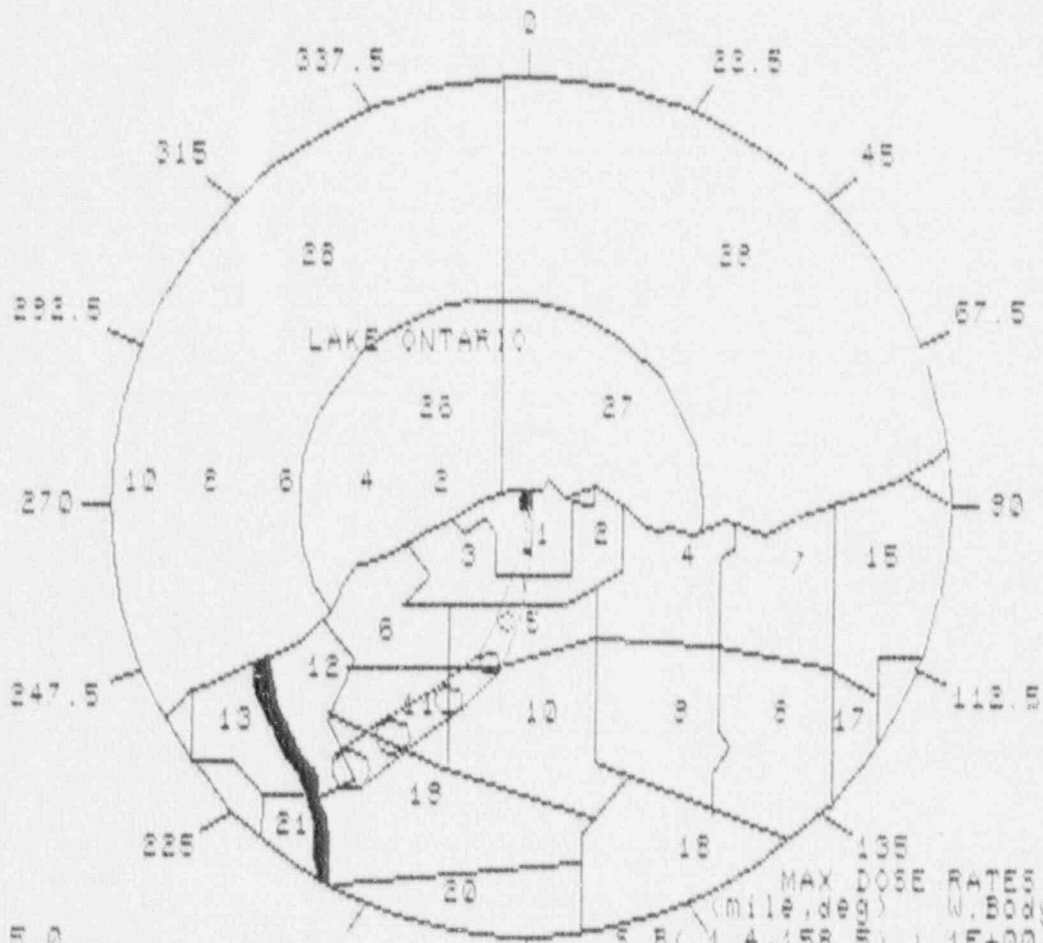
THE GAMMA DOSE RATE IS ACCURATE WITHIN PLUS OR MINUS 100.0 PERCENT

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PLUME DISPLAY

(REAL TIME)

0- 1:30
 11-OCT-90
 13:22



W (mph)
 D (mph)
 C (mph)
 T (mph)
 S (mph)
 G (mph)

(M)
 (X)
 (S)
 (C)
 (T)
 (S)
 (G)

OFF-SITE RECEPTORS

(REAL TIME)

0- 1:30
11-OCT-90

ERPA	Receptor		Dose Rate (mR/hr)		Cumulative Dose (mREM)			
	Distance (Miles)	Direction (Degree)	Gamma	Skin	Whole Body	Skin	Child Thyroid	
2	1	1.5	222.6	0.00E-01	0.00E-01	.40	.60	.72
3	1	2.0	201.2	0.00E-01	0.00E-01	3.4	9.1	59.
4	1	.8	221.3	0.00E-01	0.00E-01	.38	.62	1.2
5	1	1.0	206.6	0.00E-01	0.00E-01	.31	.43	4.45E-02
7	1	1.0	173.6	0.00E-01	0.00E-01	1.4	2.0	2.0
8	1	1.7	169.0	.79	1.1	.20	.28	4.70E-02
9	1	1.1	153.7	2.3	3.4	.58	.85	.53
24	3	3.0	209.5	0.00E-01	0.00E-01	1.4	4.2	33.
25	3	2.9	208.2	0.00E-01	0.00E-01	.77	2.1	16.

ENTER (1=page one, LINE FEED=page forward, B=page back, M=menu) : ■

OFF-SITE RECEPTORS

(REAL TIME)

0- 1:30
11-OCT-90

ERPA	Receptor		Dose Rate (mR/hr)		Cumulative Dose (mREM)			
	Distance (Miles)	Direction (Degree)	Gamma	Skin	Whole Body	Skin	Child Thyroid	
27	3	1.9	205.2	0.00E-01	0.00E-01	.85	1.7	7.4
28	3	3.9	188.9	.29	.41	7.28E-02	.10	1.07E-02
30	3	2.6	184.9	0.00E-01	0.00E-01	.13	.20	.33
31	3	2.0	182.3	0.00E-01	0.00E-01	.17	.24	.17
45	5	4.0	186.8	.35	.63	8.74E-02	.16	.54
47	5	4.0	183.2	.34	.52	8.43E-02	.13	.19
87	11	6.2	204.0	9.88E-02	.15	2.47E-02	3.68E-02	2.56E-02
88	11	4.9	210.5	0.00E-01	0.00E-01	3.72E-02	5.37E-02	6.23E-03
89	11	6.0	204.1	.10	.15	2.59E-02	3.75E-02	6.56E-03

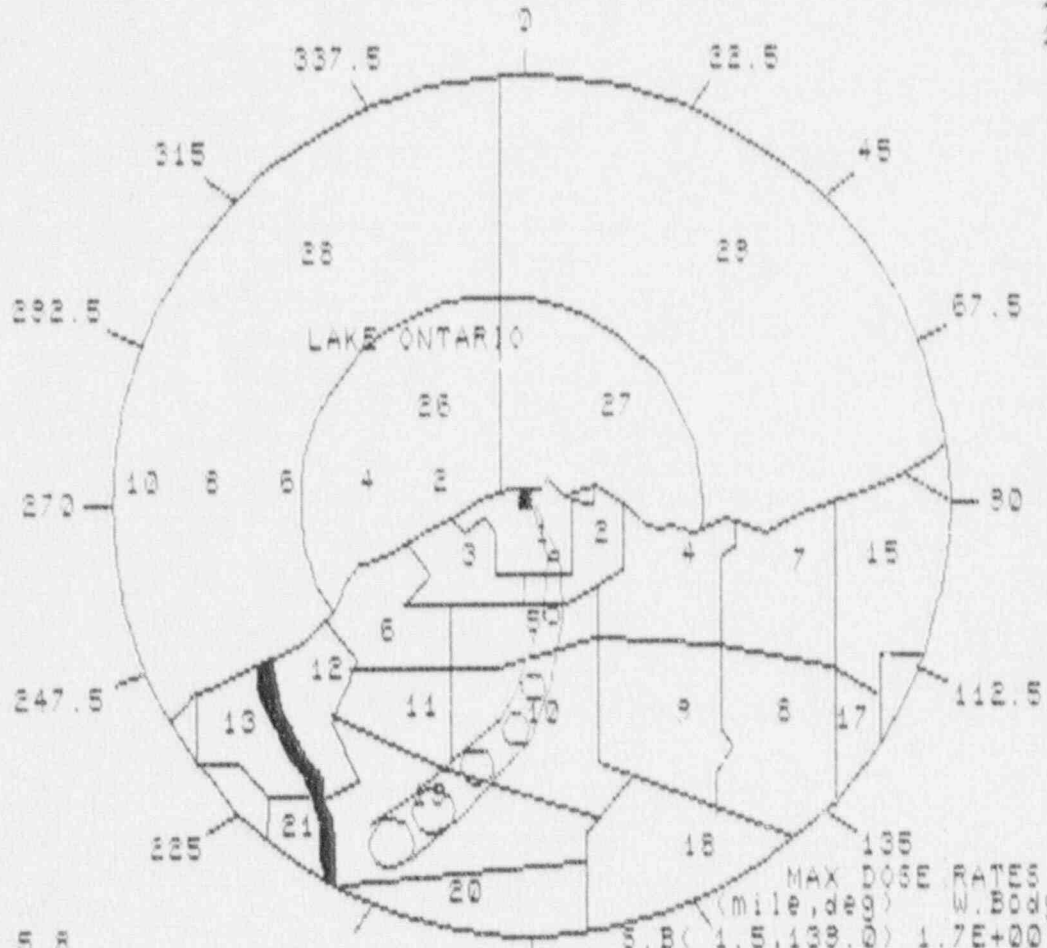
THE GAMMA DOSE RATE IS ACCURATE WITHIN PLUS OR MINUS 100.0 PERCENT

ENTER (1=page one, LINE FEED=page forward, B=page back, M=menu) : ■

PLUME DISPLAY

(REAL TIME)

2- 1:45
11-OCT-80
13:37



W 5 (0.00)
S 0 (0.00)
D 0 (0.00)
M 0 (0.00)
T 0 (0.00)
0.00
5.00

NO	NAME	DIR	MAX	DIR	NO	NAME	DIR	MAX	DIR
1	0.00	0.00	0.00	0.00	1	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	2	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	3	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	4	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	5	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	6	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	7	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	8	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	9	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	10	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	11	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	12	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	13	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	14	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.00	15	0.00	0.00	0.00	0.00
16	0.00	0.00	0.00	0.00	16	0.00	0.00	0.00	0.00
17	0.00	0.00	0.00	0.00	17	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	0.00	18	0.00	0.00	0.00	0.00
19	0.00	0.00	0.00	0.00	19	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.00	20	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	0.00	21	0.00	0.00	0.00	0.00
22	0.00	0.00	0.00	0.00	22	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	23	0.00	0.00	0.00	0.00
24	0.00	0.00	0.00	0.00	24	0.00	0.00	0.00	0.00
25	0.00	0.00	0.00	0.00	25	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	26	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	27	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	28	0.00	0.00	0.00	0.00

OFF-SITE RECEPTORS

(REAL TIME)

0- 1:45
11-OCT-90

ERPA	Receptor		Dose Rate (mR/hr)		Cumulative Dose (mREM)			
	Distance (Miles)	Direction (Degree)	Gamma	Skin	Whole Body	Skin	Child Thyroid	
2	1	1.5	222.6	0.00E-01	0.00E-01	.40	.60	.72
3	1	2.0	201.2	0.00E-01	0.00E-01	3.4	9.1	59.
4	1	.8	221.3	0.00E-01	0.00E-01	.38	.62	1.2
5	1	1.0	206.6	0.00E-01	0.00E-01	.31	.43	4.45E-02
7	1	1.0	173.6	0.00E-01	0.00E-01	1.4	2.0	2.0
8	1	1.7	169.0	0.00E-01	0.00E-01	.20	.28	4.70E-02
9	1	1.1	153.7	0.00E-01	0.00E-01	.58	.85	.53
10	1	1.0	128.8	5.3	9.4	1.3	2.4	6.0
11	1	1.2	135.2	2.8	4.5	.70	1.1	1.7

ENTER (1=page one, LINE FEED=page forward, B=page back, M=menu) : ■

OFF-SITE RECEPTORS

(REAL TIME)

0- 1:45
11-OCT-90

ERPA	Receptor		Dose Rate (mR/hr)		Cumulative Dose (mREM)			
	Distance (Miles)	Direction (Degree)	Gamma	Skin	Whole Body	Skin	Child Thyroid	
12	1	2.0	151.6	.77	1.2	.19	.31	.59
17	2	1.8	151.9	.68	.95	.17	.24	5.66E-04
24	3	3.0	209.5	0.00E-01	0.00E-01	1.4	4.2	33.
25	3	2.9	208.2	0.00E-01	0.00E-01	.77	2.1	16.
27	3	1.9	205.2	0.00E-01	0.00E-01	.85	1.7	7.4
28	3	3.9	188.9	0.00E-01	0.00E-01	7.28E-02	.10	1.07E-02
30	3	2.6	184.9	0.00E-01	0.00E-01	.13	.20	.33
31	3	2.0	182.3	0.00E-01	0.00E-01	.17	.24	.17
45	5	4.0	186.8	0.00E-01	0.00E-01	8.74E-02	.16	.54
47	5	4.0	183.2	0.00E-01	0.00E-01	8.43E-02	.13	.19

ENTER (1=page one, LINE FEED=page forward, B=page back, M=menu) :

OFF-SITE RECEPTORS

(REAL TIME)

0- 1:45
11-OCT-90

ERPA	Receptor		Dose Rate (mR/hr)		Cumulative Dose (mREM)			
	Distance (Miles)	Direction (Degree)	Gamma	Skin	Whole Body	Skin	Child Thyroid	
48	5	6.2	181.4	.12	.18	3.01E-02	4.44E-02	1.96E-02
49	5	2.7	162.6	.59	.82	.15	.20	1.86E-02
50	5	3.8	166.6	.39	.59	9.63E-02	.15	.18
51	5	3.1	163.0	.52	.93	.13	.23	.71
52	5	3.6	164.7	.40	.58	9.31E-02	.14	8.97E-02
59	6	3.7	168.4	.43	.75	.11	.19	.54
79	10	5.8	180.2	.15	.25	3.64E-02	6.14E-02	.15
87	11	6.2	204.0	0.00E-01	0.00E-01	2.47E-02	3.68E-02	2.56E-02
88	11	4.9	210.5	0.00E-01	0.00E-01	3.72E-02	5.37E-02	6.23E-03
89	11	6.0	204.1	0.00E-01	0.00E-01	2.59E-02	3.75E-02	6.56E-03

ENTER (1=page one, LINE FEED=page forward, B=page back, M=menu) : ■

OFF-SITE RECEPTORS

(REAL TIME)

0- 1:45
11-OCT-90

ERPA	Receptor		Dose Rate (mR/hr)		Cumulative Dose (mREM)			
	Distance (Miles)	Direction (Degree)	Gamma	Skin	Whole Body	Skin	Child Thyroid	
91	11	6.0	188.3	.10	.15	2.59E-02	3.74E-02	3.58E-03
157	19	7.0	188.7	.13	.28	3.23E-02	6.92E-02	.43

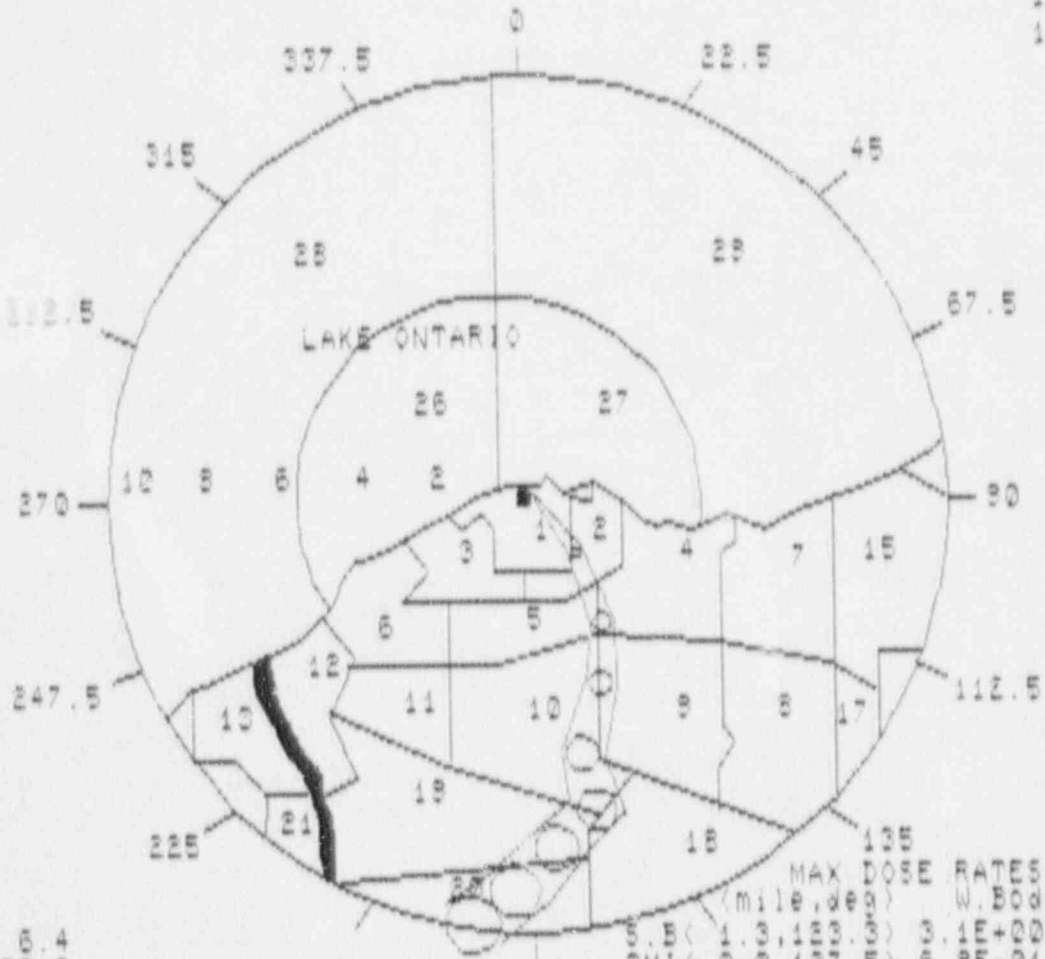
THE GAMMA DOSE RATE IS ACCURATE WITHIN PLUS OR MINUS 100.0 PERCENT

ENTER (1=page one, LINE FEED=page forward, B=page back, M=menu) : ■

PLUME DISPLAY

(REAL TIME)

0- 8: 0
 11-OCT-80
 13:52



WS (mph) 0.0 0.0 4
 WD (deg) 315 180 4
 SV 3 5

WS (mph) 0.0 0.0 4
 WD (deg) 315 180 4
 SV 3 5
 0.0 0.0 4
 315 180 4
 3 5

OFF-SITE RECEPTORS

(REAL TIME)

0- 2: 0
11-OCT-90

ERPA	Receptor		Dose Rate (mR/hr)		Cumulative Dose (mREM)			
	Distance (Miles)	Direction (Degree)	Gamma	Skin	Whole Body	Skin	Child Thyroid	
2	1	1.5	222.6	0.00E-01	0.00E-01	.40	.60	.72
3	1	2.0	201.2	0.00E-01	0.00E-01	3.4	9.1	59.
4	1	.8	221.3	0.00E-01	0.00E-01	.38	.62	1.2
5	1	1.0	206.6	0.00E-01	0.00E-01	.31	.43	4.45E-02
7	1	1.0	173.6	0.00E-01	0.00E-01	1.4	2.0	2.0
8	1	1.7	169.0	0.00E-01	0.00E-01	.20	.28	4.70E-02
9	1	1.1	153.7	0.00E-01	0.00E-01	.58	.85	.53
10	1	1.0	128.8	0.00E-01	0.00E-01	1.3	2.4	6.0
11	1	1.2	135.2	0.00E-01	0.00E-01	.70	1.1	1.7

ENTER (1=page one, LINE FEED=page forward, B=page back, M=menu) : ■

OFF-SITE RECEPTORS

(REAL TIME)

0- 2: 0
11-OCT-90

ERPA	Receptor		Dose Rate (mR/hr)		Cumulative Dose (mREM)			
	Distance (Miles)	Direction (Degree)	Gamma	Skin	Whole Body	Skin	Child Thyroid	
12	1	2.0	151.6	0.00E-01	0.00E-01	.19	.31	.39
13	1	1.3	117.5	2.7	3.8	.67	.94	8.18E-06
15	1	2.2	140.2	.60	.87	.15	.22	.11
17	2	1.8	151.9	0.00E-01	0.00E-01	.17	.24	5.66E-04
24	3	3.0	209.5	0.00E-01	0.00E-01	1.4	4.2	33.
25	3	2.9	208.2	0.00E-01	0.00E-01	.77	2.1	16.
27	3	1.9	205.2	0.00E-01	0.00E-01	.85	1.7	7.4
28	3	3.9	188.9	0.00E-01	0.00E-01	7.28E-02	.10	1.07E-02
30	3	2.6	184.9	0.00E-01	0.00E-01	.13	.20	.33
31	3	2.0	182.3	0.00E-01	0.00E-01	.17	.24	.17

ENTER (i=page one, LINE FEED=page forward, B=page back, M=menu) : ■

OFF-SITE RECEPTORS

(REAL TIME)

0- 2: 0
11-OCT-90

ERPA	Receptor		Dose Rate (mR/hr)		Cumulative Dose (mREM)			
	Distance (Miles)	Direction (Degree)	Gamma	Skin	Whole Body	Skin	Child Thyroid	
45	5	4.0	186.8	0.00E-01	0.00E-01	8.74E-02	.16	.54
47	5	4.0	183.2	0.00E-01	0.00E-01	8.43E-02	.13	.19
48	5	6.2	181.4	0.00E-01	0.00E-01	3.01E-02	4.44E-02	1.96E-02
49	5	2.7	162.6	0.00E-01	0.00E-01	.15	.20	1.86E-02
50	5	3.8	166.6	0.00E-01	0.00E-01	9.63E-02	.15	.18
51	5	3.1	163.3	0.00E-01	0.00E-01	.13	.23	.71
52	5	3.6	164.7	0.00E-01	0.00E-01	9.91E-02	.14	8.97E-02
53	5	2.8	143.8	.57	1.0	.14	.26	.78
59	6	3.7	168.4	0.00E-01	0.00E-01	.11	.19	.54
79	10	5.8	180.2	0.00E-01	0.00E-01	3.64E-02	6.14E-02	.15

ENTER (1=page one, LINE FEED=page forward, B=page back, M=menu) : █

OFF-SITE RECEPTORS

(REAL TIME)

0- 2: 0
11-OCT-90

ERPA	Receptor		Dose Rate (mR/hr)		Cumulative Dose (mREM)			
	Distance (Miles)	Direction (Degree)	Gamma	Skin	Whole Body	Skin	Child Thyroid	
82	10	5.1	165.4	.16	.23	3.98E-02	5.71E-02	4.38E-03
83	10	4.9	164.0	.17	.25	4.37E-02	6.26E-02	6.70E-03
84	10	6.1	166.0	.13	.31	3.13E-02	7.76E-02	.54
85	10	7.2	165.8	7.95E-02	.18	1.99E-02	4.55E-02	.30
87	11	6.2	204.0	0.00E-01	0.00E-01	2.47E-02	3.68E-02	2.56E-02
88	11	4.9	210.5	0.00E-01	0.00E-01	3.72E-02	5.37E-02	6.23E-03
89	11	6.0	204.1	0.00E-01	0.00E-01	2.59E-02	3.75E-02	6.56E-03
91	11	6.0	188.3	0.00E-01	0.00E-01	2.59E-02	3.74E-02	3.58E-03
157	19	7.0	188.7	0.00E-01	0.00E-01	3.23E-02	6.92E-02	.43
158	19	8.2	179.6	5.85E-02	8.52E-02	1.46E-02	2.13E-02	1.19E-02

ENTER (1=page one, LINE FEED=page forward, B=page back, M=menu) :

OFF-SITE RECEPTORS

(REAL TIME)

0- 2: 0
11-OCT-90

ERPA	Receptor		Dose Rate (mR/hr)		Cumulative Dose (mREM)		
	Distance (Miles)	Direction (Degree)	Gamma	Skin	Whole Body	Skin	Child Thyroid
159 19	7.1	166.4	.12	.28	2.92E-02	7.07E-02	.50

THE GAMMA DOSE RATE IS ACCURATE WITHIN PLUS OR MINUS 100.0 PERCENT

ENTER (1=page one, LINE FEED=page forward, B=page back, M=menu) : ■

ON-SITE RECEPTORS

(REAL TIME)

0- 2: 0
11-OCT-90

ERPA	Receptor		Dose Rate (mR/hr)		Cumulative Dose (mREM)			
	Distance (Miles)	Direction (Degree)	Gamma	Skin	Whole Body	Skin	Child Thyroid	
1	1	.5	197.6	0.00E-01	0.00E-01	.88	1.8	7.1
2	1	.6	209.2	0.00E-01	0.00E-01	.66	.93	9.70E-02
3	1	.6	224.4	0.00E-01	0.00E-01	.65	1.4	6.3
4	1	.7	232.8	0.00E-01	0.00E-01	.45	.62	1.63E-02
18	1	1.2	136.2	0.00E-01	0.00E-01	.65	.95	.47

THE GAMMA DOSE RATE IS ACCURATE WITHIN PLUS OR MINUS 100.0 PERCENT

ENTER (1=page one, LINE FEED=page forward, B=page back, M=menu) : ■
NO MORE DATA IN TABLES

SECTION 3

James A. FitzPatrick Nuclear Power Plant
1990 Partial Scale Emergency Exercise

December 19, 1990

METEOROLOGICAL FORECAST

The attached meteorological forecast information should be completed for the exercise. Actual meteorological forecasting should be performed.

SECTION 3

James A. FitzPatrick Nuclear Power Plant
1990 Partial Scale Emergency Exercise

December 19, 1990

WEATHER DESCRIPTION AND FORECAST

CURRENT DATE:
CURRENT TIME:

FORECAST LEVEL (FEET):
FORECASTER'S INITIALS:

GENERAL WEATHER DESCRIPTION:

FORECAST TIME (LOCAL)	WIND SPEED (MPH)	WIND DESCRIPTION (FROM)	STABILITY CLASS	TEMPERATURE °F	PRECIPITATION (TYPE, QUANTITY)

SECTION 4

James A. FitzPatrick Nuclear Power Plant
1990 Partial Scale Emergency Exercise

December 19, 1990

MEETINGS

SECTION 4

James A. FitzPatrick Nuclear Power Plant
1990 Partial Scale Emergency Exercise

December 19, 1990

MEETINGS

December 18, 1990

1300 to 1500	NYPA, State, NRC Controller/Observer Briefing (Training Building)
1500 to 1700	NRC Training and Badging (Training Building)

December 19, 1990

0700 to 1230	NRC Observed Partial Scale Emergency Exercise
--------------	---

December 20, 1990

0900 to 1030	Observer Debrief (Training Building - Classroom 3)
1030 to 1130	NYPA Exercise Critique (Training Building - Classroom 3)
1145 to 1215	NRC Exercise Critique (Training Building - Classroom 3)

SECTION 5

James A. FitzPatrick Nuclear Power Plant
1990 Partial Scale Emergency Exercise

December 19, 1990

TIMELINE

SECTION 6

James A. FitzPatrick Nuclear Power Plant
1990 Partial Scale Emergency Exercise

December 19, 1990

EXERCISE/CONTINGENCY MESSAGES

- I. Controller Sheets
- II. Message Sheets
- III. Plant SPDS and Parameter Sheets } Sequentially
(optional distribution)

FORM SAP 1.3

CONTROLLER SHEET

Page 0 of 41

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0630	N/A	Initial Plant Briefing Partici- pants	See attached Daily Schedule		

ACTIVITY NO.	DEPT.	DESCRIPTION	START	IN PROG.
ISP-30-1	JIC	Exo-Sensor H2/O2 Analyzer Cal		
ISP-3-4		Reactor Level Instruments		
ISP-3-5		Reactor Level Monitoring Instruments		
ISP-23-1		ESW Inst Cal		
PM		Outage PM Planning		
PM		42TS-112L Caustic Disch Lo Temp Sw		
PM		42LT-102 Caustic Storage Tank Level Xmitter		
PM		Check Gas		
PM		Walk-Thru of New Warehouse w/Security Eng		
99/81645		SAS Door Latch Inop		
/65227		Refuel Bridge Headset		
00/71682		Refuel Floor Remote Camera System		
/65409		7086B, CI-113, 112C Waste Demon Out Cond		
76/74930		FI-103 New Fire Pump Test Flow Ind		
76/73541		SD-430 Zone 79 Smoke Detector		
07/80837		8119A, LPRM 28-21A, 28-05A		
13/80077		MTU-284 RCIC Steam Flow Input Cap		
/65111		RM-463A RW Bldg High Range Rad Monitor		
/73602		Ann HV-5A-12 Cont. Rm Fan 4A No Flow		
39/500859	JMD-ME	Run in Packing on B A-C		
42/80755		Repair Pinhole Leak on 4" Line Disch of 42P-11A&B		
76/73658		FPS-314 Packing Leak		
76/73042		Check Valve Downstream of FPS-313 Stuck Open		
46/74101		Replace 46SWS-707		
72/74891		72CR-11 Cond Unit Clean & Maint		
72/74892		72CR-18 Cond Unit Clean & Maint		
71/71437	JMD-EL	71UPS-5 - Replace Battery #B		
71/73311		71UPS-5 - Clean All Cells		
71/10676		17P-36B Grease Bearings - Ex Build Vent Monitor "B" Sample Pump Motor		
71/9210		MCC-263-OC4 PM Controller for 72AHU-30B		
75/81252		75P-5A(M) Check Out Level Switch on Pump in So. Tank Pit - Condensate Tank "A"		
71/501140		Switchyard - Weekly		
88/80529		EOD-32 Turb Bldg Door Won't Open		
71/75295		Heat Trace		
	JOPS			
	JCS	Warehouse Security Locker Room Rehab Remove Scaffolding in Crescent		

Plant Status:

- 100% power
- 115KV Line #4 out of service due to maintenance being done by Niagara Mohawk. Estimated return to service at 0800 tomorrow.
- ST-1D "MSIVS and MSLDV and RWSV LFT" and ST-20C "Control Rod Operability Test" are in progress.

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0700	1	Control Room	<ul style="list-style-type: none"> - Plant is operating at 100% power. - Annunciator 09-8-6-15 NMP-FITZ 115KV Line 4 BKR 10012 TRIP is sealed in due to maintenance on the line. NiMo estimates return to service for the #4 line to be 0800 tomorrow. - Completion of ST-20C and AOP-24 have identified control rod 30-35 to be stuck in the fully withdrawn position. - Inboard main steam line drain isolation valve 29MOV-74 has failed to close during performance of surveillance testing. - Plant parameters as indicated on SPDS display. 	None	None

CONTROLLER'S NOTE: Control rod 30-35 is a member of RWM Group 1 and will not move. In accordance with Technical Specification 3.3.A.2.a, the reactor must be in Cold Shutdown within 24 hours.

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TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0705	2	Control Room	Plant parameters as indicated on SPDS display.	Continue attempts to free control rod.	None

CONTROLLER'S NOTE: Recirc run back has reduced power to 65% and flow to 50%.

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0715	3	Control Room	Plant parameters as indicated on SPDS display.	<ul style="list-style-type: none">- Commence reactor shutdown due to stuck control rod. - Initiate notifications of <u>Unusual Event</u> classification due to 24-hour LCO.	Unusual Event

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TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0730	4	Control Room	<p>The following annunciators alarm:</p> <p>09-8-6-10 LHH-Fitz 115KV Line 3 Bkr 10022 Trip</p> <p>09-8-6-14 115KV SYS VOLT LOSS</p> <p>- Plant parameters as indicated on SPDS display.</p>	<p>- Contact Niagara Mohawk to determine cause for trip on 115KV line.</p> <p>- Discuss requirements for continuing plant shutdown in lieu of loss of 115KV reserve power.</p>	Unusual Event

CONTROLLER'S NOTE: Niagara Mohawk Central regional controller informs the Control Room of a fault on the line. Maintenance crews have been dispatched in an attempt to locate the problem.

If operability of EDG's are to be demonstrated due to loss of reserve power, the "A" diesel starts but its speed oscillates excessively.

The plant is at 50% power and 50% flow.

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TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0745	5	Control Room	Plant parameters as indicated on SPDS display.	Continue investigating problems with offsite power.	Unusual Event

CONTROLLER'S NOTE: NiMo has suspended maintenance on the #4 line. A temporary fix for emergency restoration of power will be completed within two hours.

If necessary, the Emergency Director will be prompted to maintain power at 45% due to loss of offsite reserve power.

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0800	6	Control Room	The following annunciators alarm:	- Determine cause of scram.	Unusual Event
			09-3-1-9 Fuel Pool Cool & Cln Up Trouble	- Take actions in accordance with AOP's for loss of power.	
			09-3-1-10 Core Spray A or B Disch Line Not Full		
			09-3-1-18 RHR A or B Disch Line Not Full	- Review classifications and consider activating emergency facilities.	
			09-3-1-19 ARM Downscale		
			09-3-1-20 Refuel Area ARM Rad Hi		
			09-3-1-29 New Fuel Storage ARM Rad Hi		
			09-3-1-30 Radw Bldg ARM Rad Hi		
			09-3-1-39 Turb Bldg ARM Rad Hi		
			09-3-1-40 Rx Bldg ARM Rad Hi		
			09-3-2-7 Off Gas Smpl Flow Hi or Lo		
			09-3-2-10 Off Gas Timer Initiated		
			09-3-2-17 Off Gas Rad Mon Downscale or Inop		

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0800	6 (cont'd)	Control Room	Annunciators continued:		Unusual Event
			09-3-2-19 Rx Bldg Vent Rad Mon Downscale		
			09-3-3-11 Main Stm Rad Mon Downscale		
			09-3-3-22 HPCI Stm Leak Det Logic Pwr Fail		
			09-4-0-1 Cont Hi Range Rad Mon A Fail or Pwr Loss		
			09-4-0-4 Cont Hi Range Rad Mon B Fail or Pwr Loss		
			09-4-0-21 PASS Gas Smpl Ht Trace A Trouble		
			09-4-0-22 PASS Gas Smpl Ht Trace B Trouble		
			09-4-0-23 PASS Exh Fan Trouble		
			09-4-1-16 SRV Leaking		
			09-4-1-19 Rx Bldg Equip Sump A Temp Hi		
			09-4-1-20 Rx Bldg Equip Sump B Temp Hi		

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0800	6 (cont'd)	Control Room	Annunciators continued:		Unusual Event
			09-4-2-1 DW Equip Drn Isol Vlv Closed		
			09-4-2-2 DW Floor Drn Isol Vlv Closed		
			09-4-2-3 PCIS Sys A Vlv Overload or Pwr Loss		
			09-4-2-6 SRV Sonic Mon Alarm Hi		
			09-4-2-11 DW Equip Sump Temp Hi or Cool Wtr Flow Lo		
			09-4-2-13 PCIS Sys B Vlv Overload or Pwr Loss		
			09-4-2-20 RWR MG A Drv Mtr Bkr Trip		
			09-4-2-21 DW Equip Sump HI-HI or LO-LO		
			09-4-2-36 TIP ARM Rad Hi		
			09-4-2-37 RWR MG A Oil Mist Elia Diff Press Hi		
			09-4-3-1 RWR MG A Gen Lockout		

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TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0800	6 (cont'd)	Control Room	Annunciators continued:		Unusual Event
			09-4-3-2 RWR Loop A Out of Serv		
			09-4-3-5 RWR Loop B Out of Serv		
			09-4-3-10 RWR MG B Gen Lockout		
			09-4-3-11 RWR MG A Scoop Tube Lock		
			09-4-3-19 RWR MG B Drv Mtr Bkr Trip		
			09-4-3-20 RWR MG B Scoop Tube Lock		
			09-4-3-21 RWR MG A Gen Aux Lockout		
			09-4-3-30 RWR MG B Gen Aux Lockout		
			09-4-3-31 RWR MG A Speed Cntrl Sig Failed		
			09-4-3-36 RWR MG B Oil Mist Elim Diff Press Hi		
			09-4-3-40 RWR MG B Speed Cntrl Sig Failed		
			09-5-1-1 SDIV A or B Hi Lvl Trip		

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0800	6 (cont'd)	Control Room	Annunciators continued:		Unusual Event
			09-5-1-2 MSIVS Not Full Open Trip		
			09-5-1-3 RPS A Auto Scram		
			09-5-1-4 RPS B Auto Scram		
			09-5-1-5 RPS MG A Trouble		
			09-5-1-6 PCIS Sys A Rx Lvl LO-LO-LO		
			09-5-1-7 PCIS Sys B Rx Lvl LO-LO-LO		
			09-5-1-9 CRD Charging Wtr Press Lo		
			09-5-1-10 CRD Drv Wtr Filter Diff Press Hi		
			09-5-1-13 RPS A Man Scram		
			09-5-1-14 RPS B Man Scram		
			09-5-1-15 RPS Mg B Trouble		
			09-5-1-16 PCIS Sys A Stm Tun Temp Hi		
			09-5-1-17 PCIS Sys B Stm Tun Temp Hi		
			09-5-1-21 RPS Hi DW Press Trip		
			09-5-1-22 RPS Hi Rx Press Trip		

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0800	6 (cont'd)	Control Room	Annunciators continued:		Unusual Event
			09-5-1-24 Fdtwr Cntrl Lo Flow Vlv Elect Sig Fail		
			09-5-1-26 PCIS Sys A Main Stm Line Flow Hi		
			09-5-1-27 PCIS Sys B Main Stm Line Flow Hi		
			09-5-1-28 Rx Wtr Lvl Alarm Hi or Lo		
			09-5-1-31 RPS Rx Vessel Lo Lvl Trip		
			09-5-1-32 RPS Main Stm Line Hi Rad Trip		
			09-5-1-36 Sys A Stm Line Press Lo		
			09-5-1-37 Sys B Stm Line Press Lo		
			09-5-1-41 Neutron Mon Sys Trip		
			09-5-1-43 CRD Accum Press Lo or Lvl Hi		
			09-5-1-44 SDIV A or B Not Drained		
			09-5-1-51 TCV Fast Closure Trip		

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0800	6 (cont'd)	Control Room	Annunciators continued:		Unusual Event
			09-5-1-53 TSV Closure Trip		
			09-5-1-54 Scram Air Hdr Press Hi or Lo		
			09-5-1-55 PCIS Sys A Group I Isol		
			09-5-1-56 PCIS Sys B Group I Isol		
			09-5-1-58 Interposing Relay Sys on DC Pwr		
			09-5-2-2 Rod Withdrawal Block		
			09-5-2-3 Rod Drift		
			09-5-2-6 EHC Lo Press Trip		
			09-5-2-9 Main Turb Trip		
			09-5-2-16 Main Turb Exh hood Hi Temp Trip		
			09-5-2-20 Main Turb Exh Hood Temp Hi		
			09-5-2-22 RSCS In Serv		
			09-5-2-25 Flow Ref Off Norm		

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0800	6 (cont'd)	Control Room	Annunciators continued:		Unusual Event
			09-5-2-26 Main Turb Lo Vac Trip		
			09-5-2-27 Main Turb Loss of Stator Coolant Trip		
			09-5-2-30 Main Turb Bellows Fail or Lo Vac Trip		
			09-5-2-32 IRM Downscale		
			09-5-2-34 APRM Downscale		
			09-5-2-35 RBM Downscale		
			09-5-2-36 Main Turb Hi Vib Trip		
			09-5-2-44 APRM Upscale		
			09-5-2-45 RBM Upscale or Inop		
			09-5-2-54 APRM Trip Sys A Inop or Upscale Hi		
			09-5-2-55 APRM Trip Sys B Inop or Upscale Trip		
			09-5-2-57 ATTS RPS Div A1 or A2 Pwr Supp Fail or TU Out of File		

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0800	6 (cont'd)	Control Room	Annunciators continued:		Unusual Event
			09-5-2-58 ATTS RPS Div A1 or A2 Gross Fail or TU Inop		
			09-5-2-59 ATTS RPS Div B1 or B2 Pwr Supp Fail or TU Out of File		
			09-5-2-60 ATTS RPS Div B1 or B2 Gross Fail or TU Inop		
			09-6-1-3 Circ Wtr Pmp 36P-1A Overload or Trip		
			09-6-1-10 Screen Wash Bstr Pmp 46P-6A or 6B Trip or Cntrl Pwr Loss		
			09-6-1-11 Circ Wtr Pmp 36P-1B Overload or Trip		
			09-6-1-14 Perimeter Drn Pmp Trouble		
			09-6-1-18 Trvlg Wtr Screen Trip or Cntrl Pwr Loss		

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TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0800	6 (cont'd)	Control Room	Annunciators continued:		Unusual Event
			09-6-1-19 Circ Wtr Pmp 36P-1C Overload or Trip		
			09-6-1-24 Stack Dilution Fan 26FN-2A or 2B Fail		
			09-6-1-29 CNDSR Vac Lo		
			09-6-1-30 SJAE Stm Press Lo		
			09-6-1-31 Serv Air Hdr Press Lo		
			09-6-2-2 RBC Hx Disch Temp Hi or Lo		
			09-6-2-9 Cond Xfer Pmp 33P-13A Lockout or Trip		
			09-6-2-12 RBC Conduct Hi		
			09-6-2-19 Cond Xfer Pmp 33P-13B Lockout or Trip		
			09-6-2-22 RBC Makeup Tk Lvl Hi or Lo		
			09-6-2-29 Cond Xfer Hdr Press Lo		

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0800	6 (cont'd)	Control Room	Annunciators continued:		Unusual Event
			09-6-2-30 CNDSR Hotwell Lvl Hi or Lo		
			09-6-2-31 RBC Hdr Press Lo		
			09-6-2-32 RBC Hdr Press LO-LO		
			09-6-2-34 Serv Wtr Hdr Press Lo		
			09-6-2-36 TBC Hdr Press Lo		
			09-6-2-38 Breathing Air Hdr Press Lo		
			09-6-2-39 Serv Air Hdr Isol Vlv Closed		
			09-6-2-40 Breathing Air Hdr Isol Vlv Cls		
			09-6-3-20 RFP A & B Seal Wtr Diff Press Lo		
			09-6-3-30 SJAE or SPE Drn Tk Lvl Hi or Lo		
			09-6-3-31 Cond Pmp Disch Hdr Press Lo		
			09-6-3-32 Cond Demin Sys Trouble		
			09-6-4-1 RFPT A Vac Lo		
			09-6-4-2 RFPT A Trip		

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0800	6 (cont'd)	Control Room	Annunciators continued:		Unusual Event
			09-6-4-3 RFPT A Oil Clr Disch Oil Temp Hi		
			09-6-4-4 RFPT A or B Aux Oil Pmp Trouble		
			09-6-4-6 RFPT A or B Turning Gear Trouble		
			09-6-4-8 RFPT B Vac Lo		
			09-6-4-9 RFPT B Trip		
			09-6-4-10 RFPT B Oil Clr Disch Oil Temp Hi		
			09-6-4-15 RFPT A or B Emerg Brg Oil Pmp Running		
			09-7-1-3 Main Gen Auto Reg Trip to Man		
			09-7-1-5 Unit Prim Lockout		
			09-7-1-15 Main XSFMR T-18 Temp Hi		
			09-7-1-26 Main Gen Exciter Filed Bkr Trip		

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0800	6 (cont'd)	Control Room	Annunciators continued:		Unusual Event
			09-7-1-28 Main Gen Field Grd Will Alarm Only		
			09-7-1-31 Main XSFMR T-18 Trouble		
			09-7-2-1 Main Gen Disc 10031 Open		
			09-7-2-3 Fitz-Edic 345KV Line 1 Bkr 10052 Trip		
			09-7-2-7 Fitz-Scriba 345KV Line 10 Bkr 10042 Trip		
			09-7-2-8 Main Turb Brg Oil Vapor Extractor Trouble		
			09-7-2-10 Reboiler Lvl Cntrl Trouble		
			09-7-2-16 EHC Fluid Pwr Unit Tk Trouble		
			09-7-2-18 Reboiler Trouble		
			09-7-2-21 345KV Bkr 10042 Ext Dry Time or Loss of AC for Htrs		

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TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0800	6 (cont'd)	Control Room	Annunciators continued:		Unusual Event
			09-7-2-32 Main Gen Core Mon Trouble		
			09-7-3-1 Main Turb Brg 3 Lift Pmp Trouble		
			09-7-3-2 Main Turb Brg 4 Lift Pmp Trouble		
			09-7-3-3 Main Turb Mtr Drvn Suct Oil Pmp Trouble		
			09-7-3-8 Main Gen Stator Wtr Sys Trouble		
			09-7-3-13 Main Turb Brg 5 Lift Pmp Trouble		
			09-7-3-14 Main Turb Brg 6 Lift Pmp Trouble		
			09-7-3-19 Main Gen Emerg Seal Oil Pmp Running		
			09-7-3-22 Moist Sep Drn Tk 2A Lvl Lo		
			09-7-3-24 2nd Stage RHTR Drn Tk 4A Lvl Lo		
			09-7-3-25 Main Turb Brg 7 Lift Pmp Trouble		

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0800	6 (cont'd)	Control Room	Annunciators continued:		Unusual Event
			09-7-3-26 Main Turb Brg 8 Lift Pmp Trouble		
			09-7-3-29 EHC Pmp A or B Trip or Cntrl Pwr Loss		
			09-7-3-32 SPE Fan Overload Cntrl Volts Lo		
			09-7-3-38 Main Turb Turning Gear Oil Pmp Running		
			09-7-3-40 Main Stm Leads Drn Pot Lvl Hi		
			09-7-3-43 SPE Vac Lo		
			09-7-3-44 Seal Stm Hdr Press Lo		
			09-7-3-46 Moist Sep Drn Tk 28 Lvl Lo		
			09-7-3-48 2nd Stage RHTR Drn Tk 48 Lvl Lo		
			09-8-1-4 Computer Cntrl Volt Trouble		
			09-8-1-8 UPS on DC Drive		
			09-8-2-4 EDG C Load Bkr 10512 Closed		

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TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0800	6 (cont'd)	Control Room	Annunciators continued:		Unusual Event
			09-8-2-8 Bus 10300-10500 Tie Bkr 10514 Trip or Cntrl Pwr Loss		
			09-8-2-9 EDG A Eng Trouble or Shutdown		
			09-8-3-9 10100 or 10200 or 10300 or 10400 Prolong UV Trip		
			09-8-3-17 Bus 10300-10500 4KV Tie Bkr 10304 Trip		
			09-8-3-18 L13 L23 L33 L43 4KV Supp Fdr Bkr 10340 Trip		
			09-8-3-23 L14 L24 L34 L44 4KV Supp Fdr Bkr 10440 Trip		
			09-8-3-24 4160V Bus 10500 Degraded Voltage Timer Initiated		
			09-8-3-26 Bus 10300 Norm Supp Bkr 10302 Trip		

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TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0800	6 (cont'd)	Control Room	Annunciators continued:		Unusual Event
			09-8-3-32 Bus 10400 Norm Supp Bkr 10402 Trip		
			09-8-4-1 Bus 10400-10600 Tie Bkr 10614 Trip or Cntrl Pwr Loss		
			09-8-4-3 EDG B Load Bkr 10602 Closed		
			09-8-4-6 EDG D Load Bkr 10612 Closed		
			09-8-4-11 EDG B Eng Trouble or Shutdown		
			09-8-4-14 EDG D Eng Trouble or Shutdown		
			09-8-5-3 Bus 10100 Norm Supp Bkr 10102 Trip		
			09-8-5-13 Bus 10700 Supp Bkr 10702 Trip		
			09-8-5-15 Bus 10200 Norm Supp Bkr 10202 Trip		

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0800	6 (cont'd)	Control Room	Annunciators continued:		Unusual Event
			09-8-6-1 LHH-Fitz 115KV Line 3 Prim Relay Trip		
			09-8-6-10 LHH-Fitz 115KV Line 3 Bkr 10022 Air Lo or AC Pwr Loss		
			09-8-6-14 115KV SYS Volt Loss		
			09-8-6-15 NMP-Fitz 115KV Line 4 Bkr 10012 Trip		
			- HPCI/RCIC auto initiate and control level.		
			- "B", "C" and "D" EDG's start and load the 10500 and 10600 buses.		
			- Plant parameters as indicated on SPDS display.		

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0800	6 (cont'd)	Control Room			Unusual Event

CONTROLLER'S NOTE: Main turbine #8 bearing vibration jumped to 10.0 mils, causing turbine trip and subsequent scram.

Steam tunnel temperatures are not available until RPS is restored. After RPS restoration, temperature indications of 200°F near the break and 160°F further down the tunnel are available.

Only 10500 and 10600 emergency bus loads remain powered (see attached list).

Drywell temperatures increase until ESW is lined-up to coolers.

HPCI and RCIC are in manual control.

NEW YORK POWER AUTHORITY
JAMES A. FITZPATRICK NUCLEAR POWER PLANT
ABNORMAL OPERATING PROCEDURE

TITLE: LOSS OF 10500 BUS*

NO. F-AOP-18

16. Upon restoring 10500 bus to service:
- a. Restore isolated systems to service in accordance with F-AOP-15, Recovery from Isolations.
 - b. Place LPCI A, 24 VDC A, and Station A Batteries on float or equalize charge as necessary.
 - c. Restore to service equipment isolated to minimize battery loads.

D. SUMMARY OF IMPORTANT 10500 BUS LOADS:

1. RHR A and RHRSW A Systems
2. Core Spray System A
3. CRD Pump A
4. SGT System A
5. Drywell Sump Isolation Valves, 20MOV-82 and 94 fail "as is"
6. Drywell Cooler Fans 68FN-2A, 2C, 4A, and 4D.
7. SLC Pump A and SLC Heaters
8. LPCI MOV Independent Power Supply A
9. Drywell Radiation and Atmosphere Monitors A
10. RCIC Test Power
11. CAD System A
12. RPS System A
13. RFP Turning Gear A
14. Station Battery A Charger and Battery Ventilation

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JAMES A. FITZPATRICK NUCLEAR POWER PLANT
ABNORMAL OPERATING PROCEDURE

TITLE: LOSS OF 10500 BUS*

NO. F-AOP-18

- 15. UPS Alternate Supply
- 16. ESW System A
- 17. Main Turbine Lift Pumps 4A, 4C and 4E
- 18. Inboard Drywell Vent and Purge AOVs
- 19. EPIC normal supply

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JAMES A. FITZPATRICK NUCLEAR POWER PLANT
ABNORMAL OPERATING PROCEDURE

TITLE: LOSS OF 10600 BUS*

NO. F-AOP-19

c. Restore to service equipment isolated to minimize battery loads.

D. SUMMARY OF IMPORTANT 10600 BUS LOADS:

1. RHR B and RHRSW B Systems
2. Core Spray System B
3. CRD Pump B
4. SGT System B
5. Drywell Sump Isolation Valves 20AOV-83 and 95
6. Drywell Cooler Fans 68FN-2B, 2D, 4B, and 4D
7. SLC Pump B and SLC Heaters
8. LPCI Independent Power Supply B
9. Drywell Radiation and Atmosphere Monitors B
10. Main Turbine Turning Gear Oil Pump and Turning Gear
11. CAD System B
12. RPS System B
13. RFP B Turning Gear
14. Station Battery B Charger and Battery Ventilation
15. UPS Normal AC Supply
16. ESW System B
17. Main Turbine Lift Pumps 94P-4B, 4D, and 4F

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JAMES A. FITZPATRICK NUCLEAR POWER PLANT
ABNORMAL OPERATING PROCEDURE

TITLE: LOSS OF 10600 BUS*

NO. F-AOP-19

- 18. Outboard Drywell Vent and Purge AOVs
- 19. Crescent and Reactor Building Smoke Detectors
- 20. HPCI Test Power

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Date 06/14/89

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TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0801	7	Control Room	The following annunciators are sealed in: 09-3-3-2 Div I Ambient Temp Hi 09-3-3-12 Div II Ambient Temp Hi 09-5-1-16 PCIS Sys A Stm Tun Temp Hi 09-5-1-17 PCIS Sys B Stm Tun Temp Hi - 09-4 panel dual position indications for 29MCV-74, -77 and -79.	- Recognize steam leak without isolation. - Classify Site Area Emergency. - Activate TSC, OSC and EOF.	Site Area Emergency

CONTROLLER'S NOTE: Once RPS is restored, all associated annunciators clear except those listed above.

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TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0815	8	Control Room	Plant parameters as indicated on SPDS display.	<ul style="list-style-type: none">- Continue activation of emergency facilities.- Assemble non-essential staff in Training Building.	Site Area Emergency

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0830	9	Control Room	<ul style="list-style-type: none"> - The following annunciator alarms: 09-7-3-42 Hydrogen Seal Oil Trouble - Plant parameters as indicated on SPDS display. 	<ul style="list-style-type: none"> - Monitor hydrogen pressure. - Take actions in accordance with AOP-48 for loss of generator hydrogen. - Maintain contact with Niagara Mohawk for restoration of offsite power. 	Site Area Emergency

CONTROLLER'S NOTE: Main generator hydrogen pressure should be decreasing at a rate which will be zero pressure by 0900.

If the Emergency Director is not in the process of having declared a Site Area Emergency, this must be prompted.

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CONTROLLER SHEET

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TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0845	10	Control Room	Plant parameters as indicated on SPDS display.	Continue actions for restoring plant stability.	Site Area Emergency

FORM SAP 1.3

CONTROLLER SHEET

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TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0900	11	Control Room	Plant parameters as indicated on SPDS display.	Continue plant assessment activities.	Site Area Emergency

CONTROLLER'S NOTE: Main generator hydrogen pressure is zero.

FORM SAP 1.3

CONTROLLER SHEET

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TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0915	12	Control Room	<ul style="list-style-type: none">- NMP Line #4 is restored and T-3 transformer can be placed back in service.- Plant parameters as indicated on SPDS display.	<ul style="list-style-type: none">- Close 10012 and 10022 breakers.	Site Area Emergency

FORM SAP 1.3

CONTROLLER SHEET

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TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0930	13	Control Room	<ul style="list-style-type: none">- An explosion is heard coming from the Turbine Building.- Plant parameters as indicated on SPDS display.		Site Area Emergency

CONTROLLER'S NOTE: At 0930, an explosion is heard coming from the Turbine Building. The explosion occurred from the ignition of a pocket of hydrogen during unisolation of the ventilation system.

FORM SAP 1.3

CONTROLLER SHEET

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TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
0945	14	Control Room	Plant parameters as indicated on SPDS display.		Site Area Emergency

FORM SAP 1.3

CONTROLLER SHEET

Page 33 of 41

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
1000	15	Control Room	Plant parameters as indicated on SPDS display.		Site Area Emergency

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
1015	16	Control Room	The following annunciators alarm: 09-8-1-20 125VDC Batt Chgr A Current or Output Lo - Plant parameters as indicated on SPDS display.		Site Area Emergency

CONTROLLER'S NOTE: If Operations attempts to shift UPS back to AC-Drive, the MG-Set trips and failover to the alternate feeder occurs.

FORM SAP 1.3

CONTROLLER SHEET

Page 35 of 41

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
1030	17	Control Room	Plant parameters as indicated on SPDS display.		Site Area Emergency

FORM SAP 1.3

CONTROLLER SHEET

Page 36 of 41

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
1045	18	Control Room	Plant parameters as indicated on SPDS display.		Site Area Emergency

FORM SAP 1.3

CONTROLLER SHEET

Page 37 of 41

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
1100	19	Control Room	Plant parameters as indicated on SPES display.		Site Area Emergency

FORM SAP 1.3

CONTROLLER SHEET

Page 38 of 41

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
1115	20	Control Room	Plant parameters as indicated on SPDS display.		Site Area Emergency

FORM SAP 1.3

CONTROLLER SHEET

Page 39 of 41

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
1130	21	Control Room	Plant parameters as indicated on SPDS display.		Site Area Emergency

FORM SAP 1.3

CONTROLLER SHEET

Page 40 of 41

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
1145	22	Control Room	Plant parameters as indicated on SPDS display.		Site Area Emergency

FORM SAP 1.3

CONTROLLER SHEET

Page 41 of 41

TIME	MESSAGE NUMBER	ISSUED TO	SUMMARY OF MESSAGE CONTENTS	ANTICIPATED RESULTS AND COMMENTS	EMERGENCY CLASSIFICATION
1200	23	Emer- gency Facil- ity Mana- gers	Plant is stable. Commence discussions on terminating the emergency and entering recovery.		

MESSAGE SHEET

MESSAGE NO. 1Exercise Time: 0700Issued To: Control RoomIssued By: Lead Controller

MESSAGE

Plant is operating at 100% power.

Annunciator 09-8-6-15 NMP-FITZ 115KV Line 4 BKR 10012 TRIP is sealed in due to maintenance on the line. NiMo estimates return to service for the #4 line to be 0800 tomorrow.

Completion of ST-20C and AOP-24 have identified control rod 30-35 to be stuck in the fully withdrawn position.

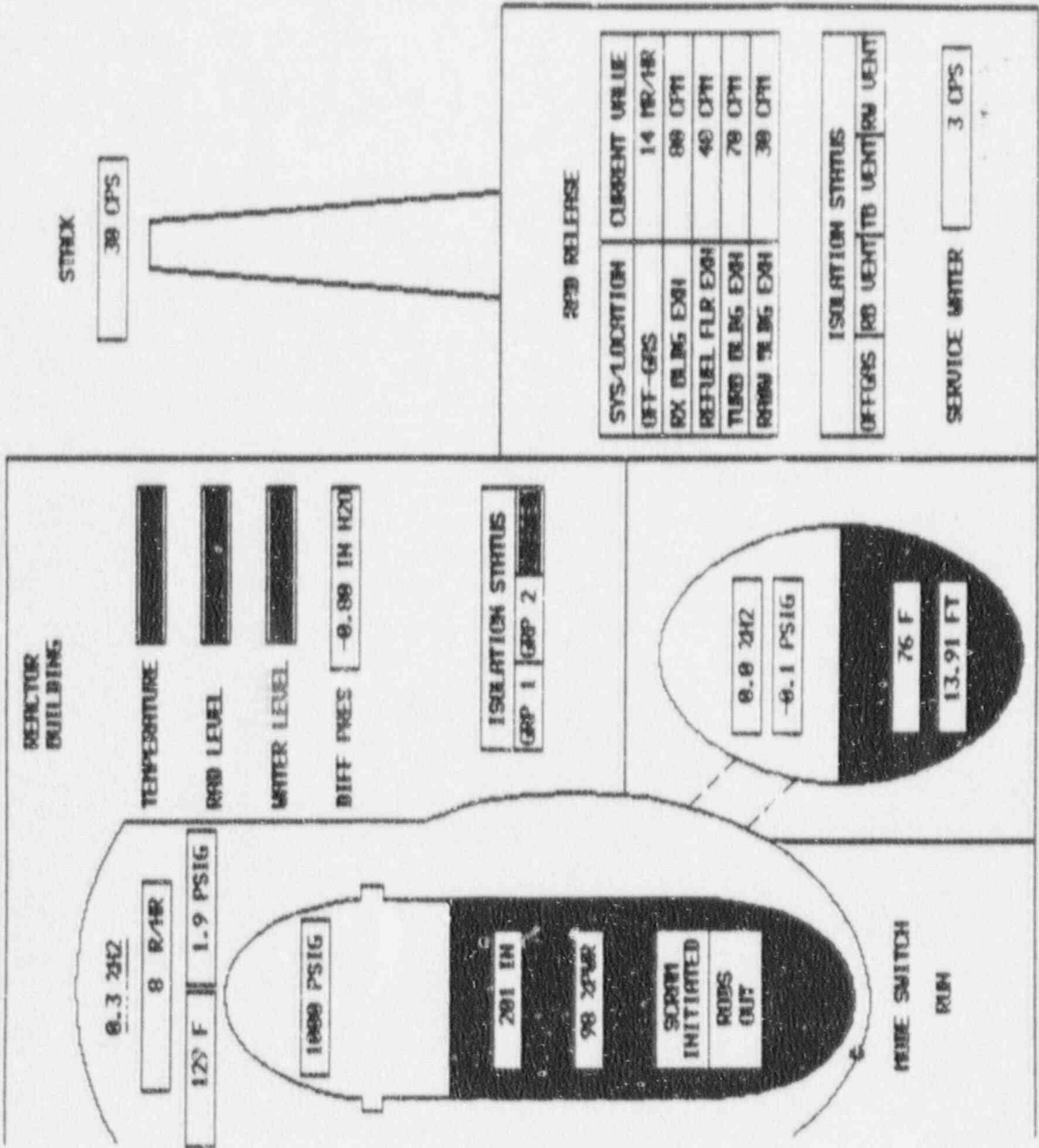
Inboard main steam line drain isolation valve 29MOV-74 has failed to close during performance of surveillance testing.

Plant parameters as indicated on SPDS display.

06:22:18 170E-463
PLANT

0.000 NR/HR // 06:22:18 170E-434
PLF

0.000 NR/HR



06:22:18 17RE-463

0.000 NR/HR // 06:22:18 17RE-434

0.000 NR/HR

Form EAP-1.1.3
James A. Fitzpatrick Nuclear Power Plant
PART III - Plant Parameters

Sequence No. _____

APRM REACTOR POWER	96.00	Z
IRM REACTOR POWER	5.000	Z
SRM REACTOR POWER	0.9000E+06	CPS
RX WATER LEVEL	201.0	Inch TFF
FEEDWATER FLOW	18.34	MLD/HR
RTC FLOW	0.0000E+00	GPM
REACTOR PRESSURE	1000.	PSIG
HPCI FLOW	0.0000E+00	GPM
LPCI A FLOW	0.0000E+00	GPM
LPCI B FLOW	0.0000E+00	GPM
"A" CORE SPRAY FLOW	0.0000E+00	GPM
"B" CORE SPRAY FLOW	0.0000E+00	GPM
DRYWELL SLIP LEVEL	15.00	Inch
STACK GAS RAD.	75.00	UCI/sec
RX BLDG VENT RAD.	19.00	UCI/sec
RFUEL FLR EXH RAD.	2.000	UCI/sec
TB BLDG VENT RAD.	9.000	UCI/sec
RW BLDG VENT RAD.	2.000	UCI/sec
SERVICE WATER RAD.	0.1500E-05	UCI/ml
STACK HI RANGE RAD.	0.2819	CI/sec
TB BLD HI RANGE RAD.	0.0000E+00	CI/sec
RW BLD HI RANGE RAD.	0.0000E+00	CI/sec
OFFGAS RAD.	14.00	nR/hr
DRYWELL RAD.	8.000	R/hr
HIGHEST NSL RAD MON	1500.	nR/hr
DRYWELL PRESSURE	1.900	PSIG
DRYWELL TEMPERATURE	129.0	Deg F
TORUS WATER AVG TYP	76.00	Deg F
TORUS WATER LEVEL	13.91	FT
DRYWELL H2 CONC	0.3000	%
DRYWELL O2 CONC	1.000	Z
CST LEVEL	250.0	Inch

Emergency Director Approval: _____

TIME: _____

FORM SAP 1.4
MESSAGE SHEET

Page 2 of 28

MESSAGE NO. 2

Exercise Time: 0705

Issued To: Control Room

Issued By: Lead Controller

MESSAGE

Plant parameters as indicated on SPDS display.

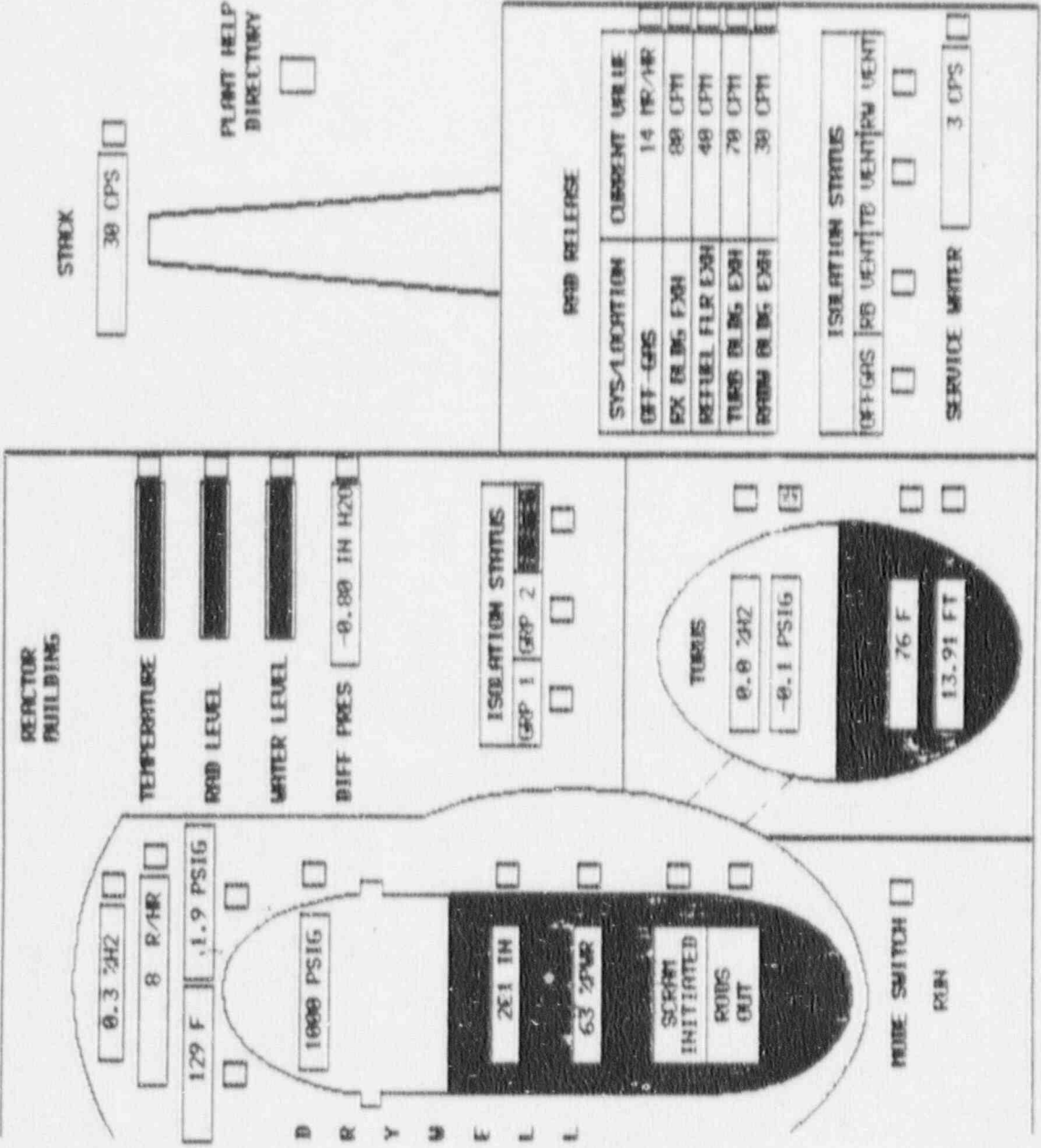
06:22:18 17RE-463

0.000 MB/HR // 06:22:18 17RE-434

0.000 MB/HR

PLANT

PLI



06:22:18 17RE-463

0.000 NR/HR // 06:22:18 17RE-434

0.000 NR/HR

Form EAP-1.1.3
 James A. Fitzpatrick Nuclear Power Plant
 PART III - Plant Parameters

Sequence No. _____

APRM REACTOR POWER	61.93	%
IRM REACTOR POWER	5.000	%
SRM REACTOR POWER	0.9000E+06	CPS
RX WATER LEVEL	201.0	Inch TRF
FEEDWATER FLOW	7.027	MLB/HR
RCIC FLOW	0.0000E+00	GPM
REACTOR PRESSURE	1000.	PSIG
HPCI FLOW	0.0000E+00	GPM
LPCI A FLOW	0.0000E+00	GPM
LPCI B FLOW	0.0000E+00	GPM
"A" CORE SPRAY FLOW	0.0000E+00	GPM
"B" CORE SPRAY FLOW	0.0000E+00	GPM
DRYWELL SUMP LEVEL	15.00	Inch
STACK GAS RAD.	75.00	UCI/sec
RX BLDG VENT RAD.	19.00	UCI/sec
RFUEL FLR EXH RAD.	2.000	UCI/sec
TB BLDG VENT RAD.	9.000	UCI/sec
RW BLDG VENT RAD.	2.000	UCI/sec
SERVICE WATER RAD.	0.1500E-05	UCI/ml
STACK HI RANGE RAD.	0.2819	CI/sec
TB BLD HI RANGE RAD.	0.0000E+00	CI/sec
RW BLD HI RANGE RAD.	0.0000E+00	CI/sec
OFFGAS RAD.	14.00	nR/hr
DRYWELL RAD.	8.000	R/hr
HIGHEST NSL RAD MON	1500.	nR/hr
DRYWELL PRESSURE	1.900	PSIG
DRYWELL TEMPERATURE	129.0	Deg F
TORUS WATER AVG TMP	76.00	Deg F
TORUS WATER LEVEL	13.91	FT
DRYWELL H2 CONC	0.3000	%
DRYWELL O2 CONC	1.800	%
CST LEVEL	250.0	Inch

Emergency Director Approval: _____ TIME: _____

MESSAGE SHEET

MESSAGE NO. 3

Exercise Time: 0715

Issued To: Control Room

Issued By: Lead Controller

MESSAGE

Plant parameters as indicated on SPDS display.

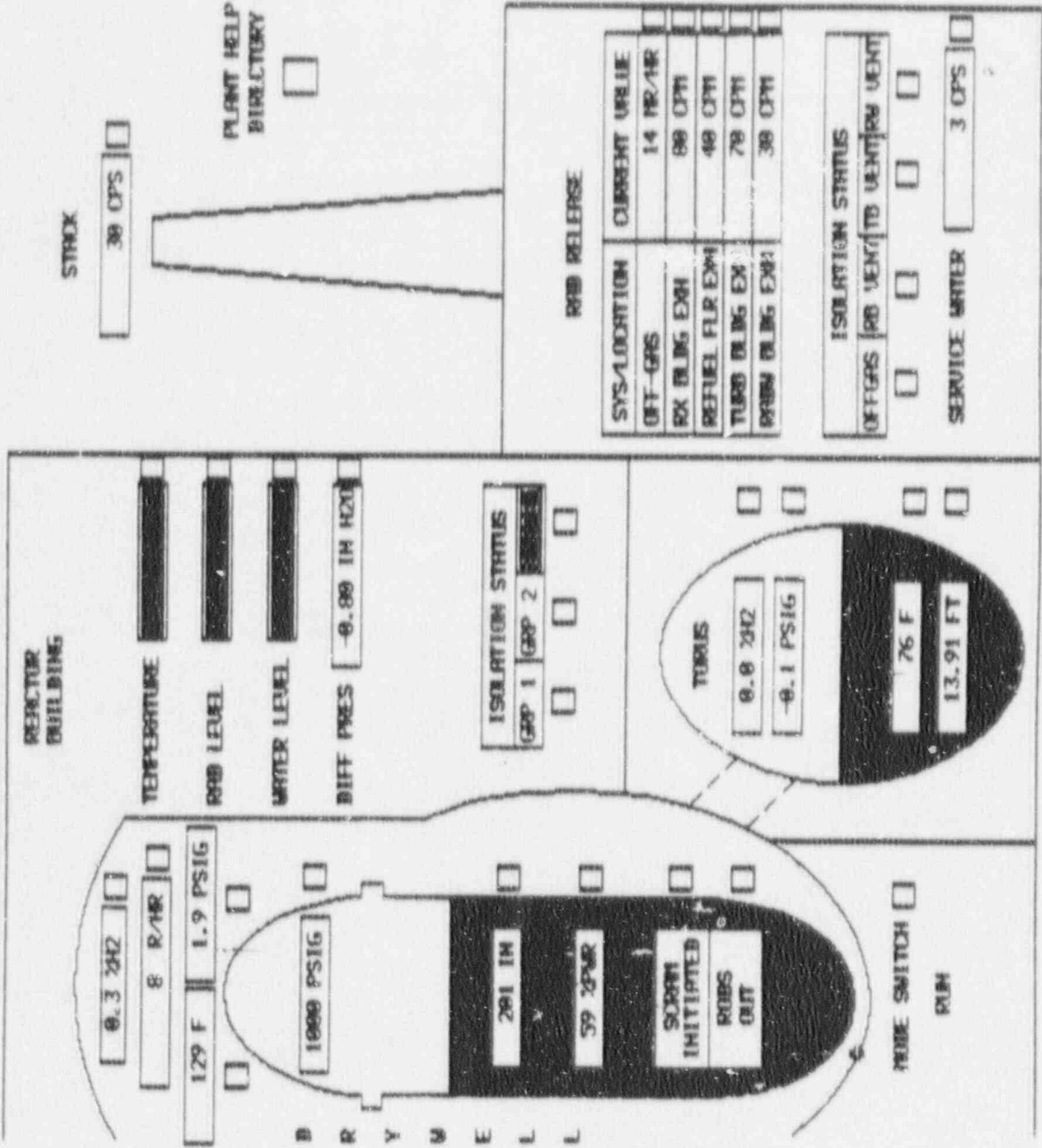
06:22:18 17KE-463

0.000 NR/HR // 06:22:18 17KE-434

0.000 NR/HR

PLANT

PLU



06:22:18 17RE-463

0.000 MR/HR // 06:22:18 17RE-634

0.000 MR/HR

Form ERF-1.1.3

Jones A. Fitzpatrick Nuclear Power Plant
PART III - Plant Parameters

Sequence No. _____

AFRM REACTOR POWER
 IFRM REACTOR POWER
 SRM REACTOR POWER
 RX WATER LEVEL
 FEEDWATER FLOW
 RECIC FLOW
 REACTOR PRESSURE
 HPCI FLOW
 LPCI A FLOW
 LPCI B FLOW
 "A" CORE SPRAY FLOW
 "B" CORE SPRAY FLOW
 BRYWELL SUPP LEVEL
 STACK GAS RAD.
 RX DREG VENT RAD.
 FUEL FLR EXH RAD.
 TD DREG VENT RAD.
 RW DREG VENT RAD.
 SERVICE WATER RAD.
 STACK HI RANGE RAD.
 TD DLD HI RANGE RAD.
 RW DLD HI RANGE RAD.
 OFFGAS RAD.
 BRYWELL RAD.
 HIGHEST PSL RAD MON
 BRYWELL PRESSURE
 BRYWELL TEMPERATURE
 TURBIS WATER FLOW TRIP
 TURBIS WATER LEVEL
 BRYWELL H2 CONC
 BRYWELL O2 CONC
 CST LEVEL

58.58 z
 5.000 z
 0.9000E+05 OPS
 281.0 Inch TRF
 6.825 MR/HR
 0.0000E+00 GPM
 1899.8 PSIG
 0.0000E+00 GPM
 0.0000E+00 GPM
 0.0000E+00 GPM
 0.0000E+00 GPM
 0.0000E+00 GPM
 15.00 Inch
 75.00 UCI/sec
 19.00 UCI/sec
 2.000 UCI/sec
 9.000 UCI/sec
 2.000 UCI/sec
 0.1500E-05 UCI/ml
 0.2819 CI/sec
 0.0000E+00 CI/sec
 0.0000E+00 CI/sec
 14.00 mR/HR
 8.000 R/HR
 1500. mR/HR
 1.900 PSIG
 129.8 Deg F
 76.00 Deg F
 13.91 FT
 0.3000 %
 1.000 z
 258.8 Inch

Emergency Director Approval: _____

TIME: _____

FORM SAP 1.4
MESSAGE SHEET

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MESSAGE NO. 4

Exercise Time: 0730

Issued To: Control Room

Issued By: Lead Controller

MESSAGE

The following annunciators alarm:

09-8-6-10 LHH-Fitz 115KV Line 3 Bkr 10022 Trip
09-8-6-14 115KV SYS VOLT LOSS

Plant parameters as indicated on SPDS display.

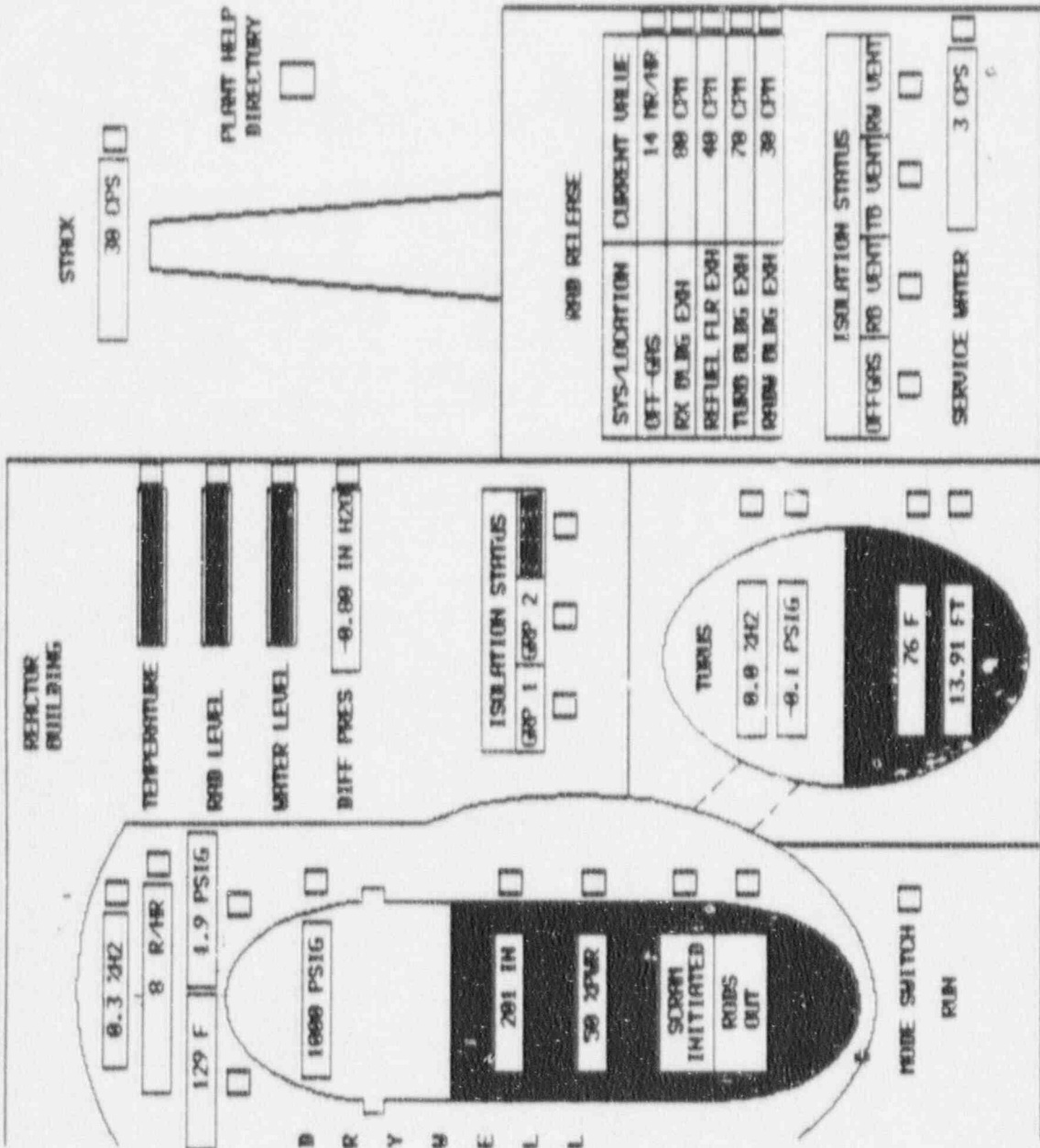
06:22:18 170E-463

06:22:18 170E-434

06:22:18 170E-463

PLANT

PLS



06:22:18 17RE-463

0.000 MB/HR // 06:22:18 17RE-434

0.000 MB/HR

Form EFP-1.1.3
 James A. Fitzpatrick Nuclear Power Plant
 PART III - Plant Parameters

Sequence No. _____

RFPM REACTOR POWER	49.77	%
IRM REACTOR POWER	5.000	%
SRI REACTOR POWER	0.9000E+06	DPS
RX WATER LEVEL	281.0	Inch TYP
FEEDWATER FLOW	6.294	MLB/HR
RCIC FLOW	0.0000E+00	GPM
REACTOR PRESSURE	1000.	PSIG
HPCI FLOW	0.0000E+00	GPM
LPCI A FLOW	0.0000E+00	GPM
LPCI B FLOW	0.0000E+00	GPM
"A" CORE SPRAY FLOW	0.0000E+00	GPM
"B" CORE SPRAY FLOW	0.0000E+00	GPM
BRYMELL SUPP LEVEL	15.00	Inch
STOX GAS RRD.	75.00	ICI/sec
RX DRUG-VENT RRD.	19.00	ICI/sec
FUEL FLR EXH RRD.	2.000	ICI/sec
TB DRUG VENT RRD.	9.000	ICI/sec
RM DRUG VENT RRD.	2.000	ICI/sec
SERVICE WATER RRD.	0.1500E-05	ICI/ml
STOX HI RANGE RRD.	0.2819	CI/sec
TB DR HI RANGE RRD.	0.0000E+00	CI/sec
RM DR HI RANGE RRD.	0.0000E+00	CI/sec
OFFERS RRD.	14.00	m2/hr
BRYMELL RRD.	8.000	R/hr
HIGHEST MSL RRD TMIN	1500.	m2/hr
BRYMELL PRESSURE	1.900	PSIG
BRYMELL TEMPERATURE	129.0	Deg F
TURBUS WATER AUG TYP	76.00	Deg F
TURBUS WATER LEVEL	13.91	FT
BRYMELL H2 CONC	0.3000	%
BRYMELL O2 CONC	1.000	%
CST LEVEL	258.0	Inch

5

Emergency Director Approval: _____

TIME: _____

FORM SAP 1.4
MESSAGE SHEET

Page 5 of 28

MESSAGE NO. 5

Exercise Time: 0745

Issued To: Control Room

Issued By: Lead Controller

MESSAGE

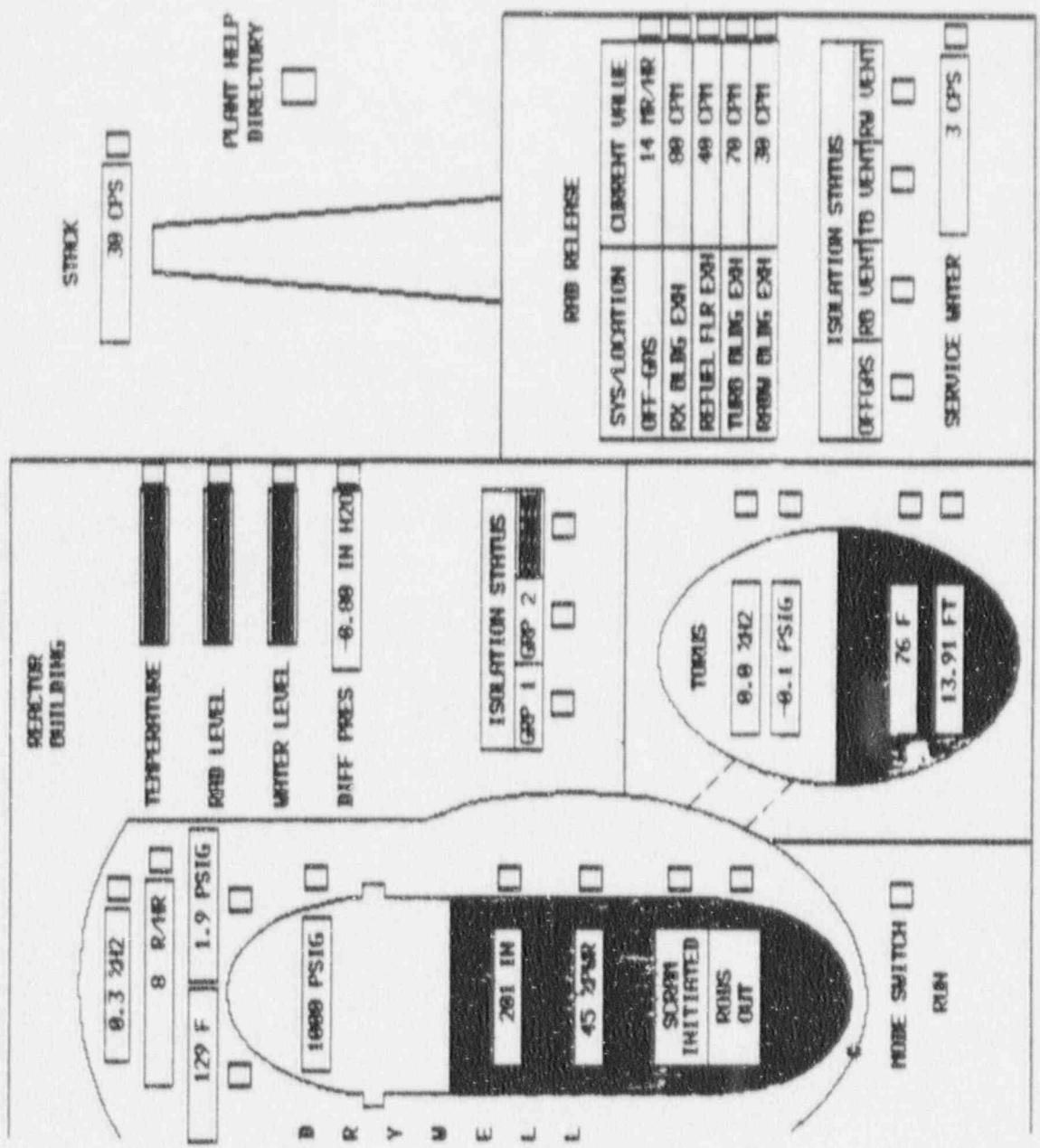
Plant parameters as indicated on SPDS display.

06:22:18 170E-463

0.000 MR/HR // 06:22:18 170E-434

0.000 MR/HR

PLANT



06:22:18 17RE-463

0.000 NR/HR // 06:22:18 17RE-434

0.000 NR/HR

Form ERP-1.1.3
 James A. Fitzpatrick Nuclear Power Plant
 PART III - Plant Parameters

Sequence No. _____

APRM REACTOR POWER	45.00	z
TRM REACTOR POWER	5.000	z
SRM REACTOR POWER	0.9000E+06	CPS
RX WATER LEVEL	201.0	Inch TRF
FEEDWATER FLOW	5.950	MLB/HR
RCIC FLOW	0.0000E+00	GPM
REACTOR PRESSURE	1000.	PSIG
HPCI FLOW	0.0000E+00	GPM
LPCI A FLOW	0.0000E+00	GPM
LPCI B FLOW	0.0000E+00	GPM
"A" CORE SPRAY FLOW	0.0000E+00	GPM
"B" CORE SPRAY FLOW	0.0000E+00	GPM
BRYWELL SURF LEVEL	15.00	Inch
STACK GAS RAD.	75.00	UCI/sec
RX BLDG VENT RAD.	19.00	UCI/sec
REFUEL FLR EXH RAD.	2.000	UCI/sec
TB BLDG VENT RAD.	9.000	UCI/sec
RW BLDG VENT RAD.	2.000	UCI/sec
SERVICE WATER RAD.	0.1500E-05	UCI/ml
STACK HI RANGE RAD.	0.2819	CI/sec
TB BLD HI RANGE RAD.	0.0000E+00	CI/sec
RW BLD HI RANGE RAD.	0.0000E+00	CI/sec
OFFGAS RAD.	14.00	mR/hr
BRYWELL RAD.	0.000	R/hr
HIGHEST INSL RAD MON	1500.	mR/hr
BRYWELL PRESSURE	1.900	PSIG
BRYWELL TEMPERATURE	129.0	Deg F
TORUS WATER AVG TYP	76.00	Deg F
TORUS WATER LEVEL	13.91	FT
BRYWELL H2 CONC	0.3000	z
BRYWELL O2 CONC	1.000	z
CST LEVEL	250.0	Inch

Emergency Director Approval: _____ TIME: _____

MESSAGE SHEET

MESSAGE NO. 6Exercise Time: 0800Issued To: Control RoomIssued By: Lead Controller

MESSAGE

The following annunciators alarm:

09-3-1-9 Fuel Pool Cool & Cln Up Trouble
09-3-1-10 Core Spray A or B Disch Line Not Full
09-3-1-18 RHR A or B Disch Line Not Full
09-3-1-19 ARM Downscale
09-3-1-20 Refuel Area ARM Rad Hi
09-3-1-29 New Fuel Storage ARM Rad Hi
09-3-1-30 Radw Bldg ARM Rad Hi
09-3-1-39 Turb Bldg ARM Rad Hi
09-3-1-40 Rx Bldg ARM Rad Hi
09-3-2-7 Off Gas Smpl Flow Hi or Lo
09-3-2-10 Off Gas Timer Initiated
09-3-2-17 Off Gas Rad Mon Downscale or Inop
09-3-2-19 Rx Bldg Vent Rad Mon Downscale
09-3-3-11 Main Stm Rad Mon Downscale
09-3-3-22 HPCI Stm Leak Det Logic Pwr Fail
09-4-0-1 Cont Hi Range Rad Mon A Fail or Pwr Loss
09-4-0-4 Cont Hi Range Rad Mon B Fail or Pwr Loss
09-4-0-21 PASS Gas Smpl Ht Trace A Trouble
09-4-0-22 PASS Gas Smpl Ht Trace B Trouble
09-4-0-23 PASS Exh Fan Trouble
09-4-1-16 SRV Leaking
09-4-1-19 Rx Bldg Equip Sump A Temp Hi
09-4-1-20 Rx Bldg Equip Sump B Temp Hi
09-4-2-1 DW Equip Drn Isol Vlv Closed
09-4-2-2 DW Floor Drn Isol Vlv Closed
09-4-2-3 PCIS Sys A Vlv Overload or Pwr Loss
09-4-2-6 SRV Sonic Mon Alarm Hi
09-4-2-11 DW Equip Sump Temp Hi or Cool Wtr Flow Lo
09-4-2-13 PCIS Sys B Vlv Overload or Pwr Loss
09-4-2-20 RWR MG A Drv Mtr Bkr Trip
09-4-2-21 DW Equip Sump HI-HI or LO-LO
09-4-2-36 TIP ARM Rad Hi
09-4-2-37 RWR MG A Oil Mist Elim Diff Press Hi
09-4-3-1 RWR MG A Gen Lockout
09-4-3-2 RWR Loop A Out of Serv
09-4-3-5 RWR Loop B Out of Serv

MESSAGE SHEET

MESSAGE NO. 6Exercise Time: 0800 (cont)Issued To: Control RoomIssued By: Lead Controller

MESSAGE

Annunciators continued:

09-4-3-10 RWR MG B Gen Lockout
09-4-3-11 RWR MG A Scoop Tube Lock
09-4-3-19 RWR MG B Drv Mtr Bkr Trip
09-4-3-20 RWR MG B Scoop Tube Lock
09-4-3-21 RWR MG A Gen Aux Lockout
09-4-3-30 RWR MG B Gen Aux Lockout
09-4-3-31 RWR MG A Speed Cntrl Sig Failed
09-4-3-36 RWR MG B Oil Mist Elim Diff Press Hi
09-4-3-40 RWR MG B Speed Cntrl Sig Failed
09-5-1-1 SDIV A or B Hi Lvl Trip
09-5-1-2 MSIVS Not Full Open Trip
09-5-1-3 RPS A Auto Scram
09-5-1-4 RPS B Auto Scram
09-5-1-5 RPS MG A Trouble
09-5-1-6 PCIS Sys A Rx Lvl LO-LO-LO
09-5-1-7 PCIS Sys B Rx Lvl LO-LO-LO
09-5-1-9 CRD Charging Wtr Press Lo
09-5-1-10 CRD Drv Wtr Filter Diff Press Hi
09-5-1-13 RPJ A Man Scram
09-5-1-14 RPS B Man Scram
09-5-1-15 RPS Mg B Trouble
09-5-1-16 PCIS Sys A Stm Tun Temp Hi
09-5-1-17 PCIS Sys B Stm Tun Temp Hi
09-5-1-21 RPS Hi DW Press Trip
09-5-1-22 RPS Hi Rx Press Trip
09-5-1-24 Fdtwr Cntrl Lo Flow Vlv Elect Sig Fail
09-5-1-26 PCIS Sys A Main Stm Line Flow Hi
09-5-1-27 PCIS Sys B Main Stm Line Flow Hi
09-5-1-28 Rx Wtr Lvl Alarm Hi or Lo
09-5-1-31 RPS Rx Vessel Lo Lvl Trip
09-5-1-32 RPS Main Stm Line Hi Rad Trip
09-5-1-36 Sys A Stm Line Press Lo
09-5-1-37 Sys B Stm Line Press Lo
09-5-1-41 Neutron Mon Sys Trip
09-5-1-43 CRD Accum Press Lo or Lvl Hi
09-5-1-44 SDIV A or B Not Drained

MESSAGE SHEET

MESSAGE NO. 6Exercise Time: 0800 (cont)Issued To: Control RoomIssued By: Lead Controller

MESSAGE

Annunciators continued:

09-5-1-51 TCV Fast Closure Trip
09-5-1-53 TSV Closure Trip
09-5-1-54 Scram Air Hdr Press Hi or Lo
09-5-1-55 PCIS Sys A Group I Isol
09-5-1-56 PCIS Sys B Group I Isol
09-5-1-58 Interposing Relay Sys on DC Pwr
09-5-2-2 Rod Withdrawal Block
09-5-2-3 Rod Drift
09-5-2-6 EHC Lo Press Trip
09-5-2-9 Main Turb Trip
09-5-2-16 Main Turb Exh Hood Hi Temp Trip
09-5-2-20 Main Turb Exh Hood Temp Hi
09-5-2-22 RSCS In Serv
09-5-2-25 Flow Ref Off Norm
09-5-2-26 Main Turb Lo Vac Trip
09-5-2-27 Main Turb Loss of Stator Coolant Trip
09-5-2-30 Main Turb Bellows Fail or Lo Vac Trip
09-5-2-32 IRM Downscale
09-5-2-34 APRM Downscale
09-5-2-35 RBM Downscale
09-5-2-36 Main Turb Hi Vib Trip
09-5-2-44 APRM Upscale
09-5-2-45 RBM Upscale or Inop
09-5-2-54 APRM Trip Sys A Inop or Upscale Hi
09-5-2-55 APRM Trip Sys B Inop or Upscale Trip
09-5-2-57 ATTS RPS Div A1 or A2 Pwr Supp Fail or TU Out of File
09-5-2-58 ATTS RPS Div A1 or A2 Gross Fail or TU Inop
09-5-2-59 ATTS RPS Div B1 or B2 Pwr Supp Fail or TU Out of File
09-5-2-60 ATTS RPS Div B1 or B2 Gross Fail or TU Inop
09-6-1-3 Circ Wtr Pmp 36P-1A Overload or Trip
09-6-1-10 Screen Wash Bstr Pmp 46P-6A or 6B Trip or Cntrl Pwr Loss
09-6-1-11 Circ Wtr Pmp 36P-1B Overload or Trip
09-6-1-14 Perimeter Drn Pmp Trouble
09-6-1-18 Trvlg Wtr Screen Trip or Cntrl Pwr Loss
09-6-1-19 Circ Wtr Pmp 36P-1C Overload or Trip
09-6-1-24 Stack Dilution Fan 26FN-2A or 2B Fail

MESSAGE SHEET

MESSAGE NO. 6Exercise Time: 0800 (cont)Issued To: Control RoomIssued By: Lead Controller

MESSAGE

Annunciators continued:

09-6-1-29 CNDSR Vac Lo
09-6-1-30 SJAE Stm Press Lo
09-6-1-31 Serv Air Hdr Press Lo
09-6-2-2 RBC Hx Disch Temp Hi or Lo
09-6-2-9 Cond Xfer Pmp 33P-13A Lockout or Trip
09-6-2-12 RBC Conduct Hi
09-6-2-19 Cond Xfer Pmp 33P-13B Lockout or Trip
09-6-2-22 RBC Makeup Tk Lvl Hi or Lo
09-6-2-29 Cond Xfer Hdr Press Lo
09-6-2-30 CNDSR Hotwell Lvl Hi or Lo
09-6-2-31 RBC Hdr Press Lo
09-6-2-32 RBC Hdr Press LO-LO
09-6-2-34 Serv Wtr Hdr Press Lo
09-6-2-36 TBC Hdr Press Lo
09-6-2-38 Breathing Air Hdr Press Lo
09-6-2-39 Serv Air Hdr Isol Vlv Closed
09-6-2-40 Breathing Air Hdr Isol Vlv Closed
09-6-3-20 RFP A & B Seal Wtr Diff Press Lo
09-6-3-30 SJAE or SPE Drn TK Lvl Hi or Lo
09-6-3-31 Cond Fmp Disch Hdr Press Lo
09-6-3-32 Cond Demin Sys Trouble
09-6-4-1 RFPT A Vac Lo
09-6-4-2 RFPT A Trip
09-6-4-3 RFPT A Oil Clr Disch Oil Temp Hi
09-6-4-4 RFPT A or B Aux Oil Pmp Trouble
09-6-4-6 RFPT A or B Turning Gear Trouble
09-6-4-8 RFPT B Vac Lo
09-6-4-9 RFPT B Trip
09-6-4-10 RFPT B Oil Clr Disch Oil Temp Hi
09-6-4-15 RFPT A or B Emerg Brg Oil Pmp Running
09-7-1-3 Main Gen Auto Reg Trip to Man
09-7-1-5 Unit Prim Lockout
09-7-1-15 Main XSFMR T-18 Temp Hi
09-7-1-26 Main Gen Exciter Filed Bkr Trip
09-7-1-28 Main Gen Field Grd Will Alarm Only
09-7-1-31 Main XSFMR T-18 Trouble

MESSAGE SHEET

MESSAGE NO. 6Exercise Time: 0800 (cont)Issued To: Control RoomIssued By: Lead Controller

MESSAGE

Annunciators continued:

09-7-2-1 Main Gen Disc 10031 Open
09-7-2-3 Fitz-Edic 345KV Line 1 Bkr 10052 Trip
09-7-2-7 Fitz-Scriba 345KV Line 10 Bkr 10042 Trip
09-7-2-8 Main Turb Brg Oil Vapor Extractor Trouble
09-7-2-10 Reboiler Lvl Cntrl Trouble
09-7-2-16 EHC Fluid Pwr Unit Tk Trouble
09-7-2-18 Reboiler Trouble
09-7-2-21 345KV Bkr 10042 Ext Dry Time or Loss of AC for Htrs
09-7-2-32 Main Gen Core Mon Trouble
09-7-3-1 Main Turb Brg 3 Lift Pmp Trouble
09-7-3-2 Main Turb Brg 4 Lift Pmp Trouble
09-7-3-3 Main Turb Mtr Drvn Suct Oil Pmp Trouble
09-7-3-8 Main Gen Stator Wtr Sys Trouble
09-7-3-13 Main Turb Brg 5 Lift Pmp Trouble
09-7-3-14 Main Turb Brg 6 Lift Pmp Trouble
09-7-3-19 Main Gen Emerg Seal Oil Pmp Running
09-7-3-22 Moist Sep Drn Tk 2A Lvl Lo
09-7-3-24 2nd Stage RHTR Drn Tk 4A Lvl Lo
09-7-3-25 Main Turb Brg 7 Lift Pmp Trouble
09-7-3-26 Main Turb Brg 8 Lift Pmp Trouble
09-7-3-29 EHC Pmp A or B Trip or Cntrl Pwr Loss
09-7-3-32 SPE Fan Overload Cntrl Volts Lo
09-7-3-38 Main Turb Turning Gear Oil Pmp Running
09-7-3-40 Main Stm Leads Drn Pot Lvl Hi
09-7-3-43 SPE Vac Lo
09-7-3-44 Seal Stm Hdr Press Lo
09-7-3-46 Moist Sep Drn Tk 28 Lvl Lo
09-7-3-48 2nd Stage RHTR Drn Tk 48 Lvl Lo
09-8-1-4 Computer Cntrl Volt Trouble
09-8-1-8 UPS on DC Drive
09-8-2-4 EDG C Load Bkr 10512 Closed
09-8-2-8 Bus 10300-10500 Tie Bkr 10514 Trip or Cntrl Pwr Loss
09-8-2-9 EDG A Eng Trouble or Shutdown
09-8-3-9 10100 or 10200 or 10300 or 10400 Prolong UV Trip
09-8-3-17 Bus 10300-10500 4KV Tie Bkr 10304 Trip
09-8-3-18 L13 L23 L33 L43 4KV Supp Fdr Bkr 10340 Trip

MESSAGE SHEET

MESSAGE NO. 6Exercise Time: 0800 (cont)Issued To: Control RoomIssued By: Lead Controller

MESSAGE

Annunciators continued:

09-8-3-23 L14 L24 L34 L44 4KV Supp Fdr Bkr 10440 Trip
09-8-3-24 4160V Bus 10500 Degraded Voltage Timer Initiated
09-8-3-26 Bus 10300 Norm Supp Bkr 10302 Trip
09-8-3-32 Bus 10400 Norm Supp Bkr 10402 Trip
09-8-4-1 Bus 10400-10600 Tie Bkr 10614 Trip or Cntrl Pwr Loss
09-8-4-3 EDG B Load Bkr 10602 Closed
09-8-4-6 EDG D Load Bkr 10612 Closed
09-8-4-11 EDG B Eng Trouble or Shutdown
09-8-4-14 EDG D Eng Trouble or Shutdown
09-8-5-3 Bus 10100 Norm Supp Bkr 10102 Trip
09-8-5-13 Bus 10700 Supp Bkr 10702 Trip
09-8-5-15 Bus 10200 Norm Supp Bkr 10202 Trip
09-8-6-1 LHH-Fitz 115KV Line 3 Prim Relay Trip
09-8-6-10 LHH-Fitz 115KV Line 3 Bkr 10022 Air Loss AC Pwr Loss
09-8-6-14 115KV SYS Volt Loss
09-8-6-15 NMP-Fitz 115KV Line 4 Bkr 10012 Trip

HPCI/RCIC auto initiate and control levels

"B", "C" and "D" EDG's start and load the 10500 and 10600 buses.

Plant parameters as indicated on SPDS display.

06:01:28 ROOM

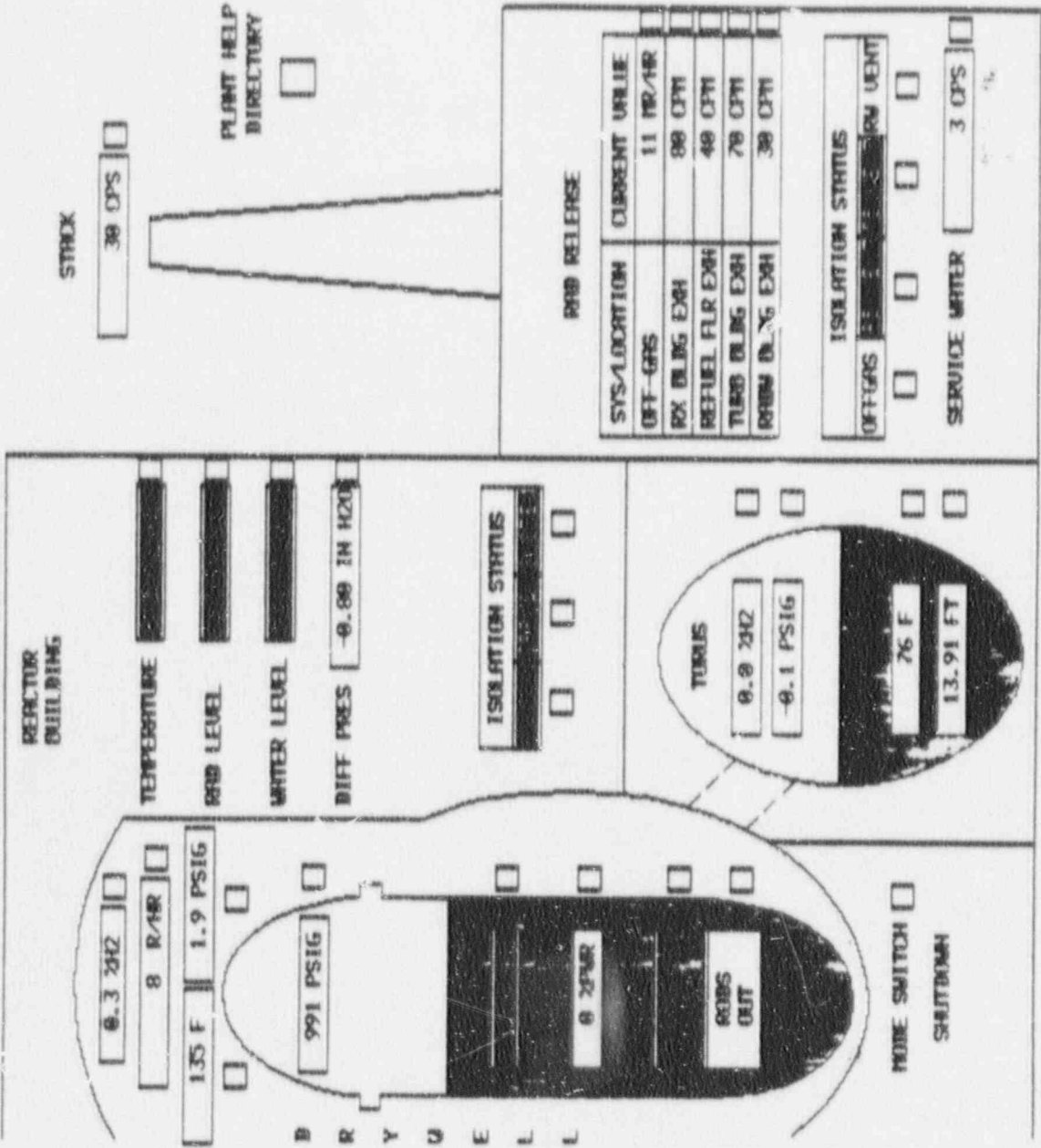
IN

// 08:00:28 1807-021-22

0.000 MB/HR

PLANT

PL



00:01:20 FORM

IM

// 00:00:28 1901-021-ZZ

0.0000 MB/HR

Form EEP-1.1.3

James A. Fitzpatrick Nuclear Power Plant
PART III - Plant Parameters

Sequence No. _____

AFRM REACTOR POWER	0.0000E+00	%
IRM REACTOR POWER	0.0000E+00	%
SRM REACTOR POWER	0.0000E+00	CPS
RX WATER LEVEL	0.0000E+00	Inch TIF
FEEDWATER FLOW	0.30000	MLB/HR
RCIC FLOW	0.0000E+00	GPM
REACTOR PRESSURE	998.2	PSIG
HPCI P 3M	0.0000E+00	GPM
LPCI A FLOW	0.0000E+00	GPM
LPCI B FLOW	0.0000E+00	GPM
"A" CORE SPRAY FLOW	0.0000E+00	GPM
"B" CORE SPRAY FLOW	0.0000E+00	GPM
BRYNELL SLURP LEVEL	15.00	Inch
STRACK GAS RAB.	75.00	UEI/sec
RX OILG VENT RAB.	19.00	UEI/sec
FUEL FLR EXH RAB.	2.000	UEI/sec
TD OILG VENT RAB.	9.000	UEI/sec
RM OILG VENT RAB.	2.000	UEI/sec
SERVICE WATER RAB.	0.1500E-05	UEI/ml
STRACK HI RANGE RAB.	0.2819	CI/sec
TD OLB HI RANGE RAB.	0.0000E+00	CI/sec
RM PLB HI RANGE RAB.	0.0000E+00	CI/sec
OFFGAS RAB.	13.30	MP/HR
BRYNELL RAB.	7.994	R/HR
HIGHEST INSL RAB MIN	1506.	MP/HR
BRYNELL PRESSURE	1.900	PSIG
BRYNELL TEMPERATURE	132.6	Deg F
TURBUS WATER RUG TIF	76.00	Deg F
TURBUS WATER LEVEL	13.91	FT
BRYNELL H2 CONC	0.3000	%
BRYNELL O2 CONC	1.000	%
CST LEVEL	258.0	Inch

Emergency Director Approval: _____

TIME: _____

MESSAGE SHEET

MESSAGE NO. 7Exercise Time: 0801Issued To: Control RoomIssued By: Lead Controller

MESSAGE

The following annunciators are sealed in:

09-3-3-2 DIV I Ambient Temp Hi
09-3-3-12 Div II Ambient Temp Hi
09-5-1-16 PCIS Sys A Stm Tun Temp Hi
09-5-1-17 PCIS Sys B Stm Tun Temp Hi

09-4 panel dual position indications for 29MOV-74, -77 and -79.

FORM SAP 1.4
MESSAGE SHEET

Page 13 of 28

MESSAGE NO. 8

Exercise Time: 0815

Issued To: Control Room

Issued By: Lead Controller

MESSAGE

Plant parameters as indicated on SPDS display.

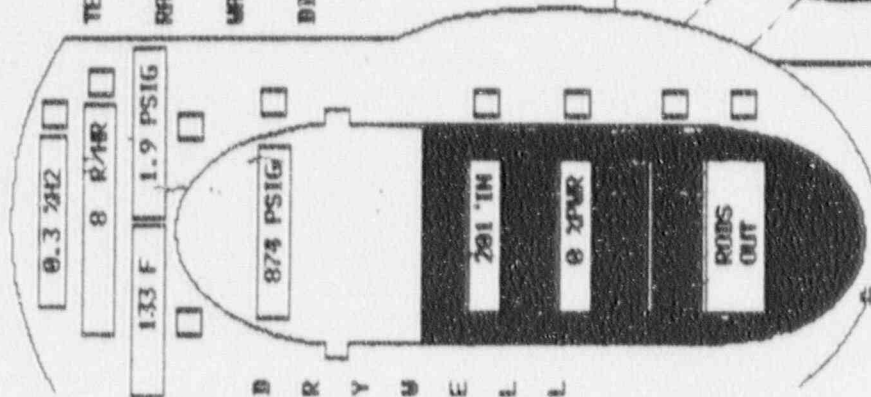
00:02:10 DMT

13.040 F // 00:01:28 RXAL

201.000 IN

PLANT

REFLECTOR BUILDING



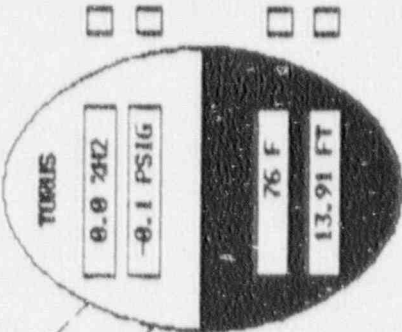
TEMPERATURE

ROD LEVEL

WATER LEVEL

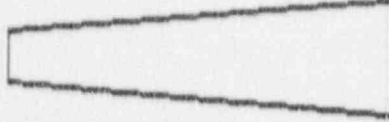
B1/F PRES -0.88 IN H2O

ISOLATION STATUS



STACK

30 CPS



PLANT HELP BIRECTORY

ROD RELEASE

SYS/LOCATION	CURRENT VALUE
OFF-GAS	1 NR/HR
RX BLDG EXH	80 CPM
REFUEL FLR EXH	40 CPM
TURB BLDG EXH	70 CPM
RRDM BLDG EXH	30 CPM

ISOLATION STATUS

OFFGAS

RRM VENT

SERVICE WATER

3 CPS

08:02:10 DAY

132.968 F

// 08:01:28 ROMA

201.000 IN

Form EHP-1.1.3
 James A. Fitzpatrick Nuclear Power Plant
 PART III - Plant Parameters

Sequence No. _____

APP301 REACTOR POWER	0.0000E+00	Z
IRM REACTOR POWER	0.0000E+00	Z
S301 REACTOR POWER	0.0000E+00	CPS
SOX WATER LEVEL	201.0	Inch TYP
FEEDWATER FLOW	0.3000	MLB/HR
RECIC FLOW	300.0	GPM
REACTOR PRESSURE	865.7	PSIG
WPCI FLOW	0.0000E+00	GPM
LPCI A FLOW	0.0000E+00	GPM
LPCI B FLOW	0.0000E+00	GPM
"A" CORE SPRAY FLOW	0.0000E+00	GPM
"B" CORE SPRAY FLOW	0.0000E+00	GPM
DRYWELL SLURP LEVEL	15.00	Inch
STRICK GAS RFD.	75.00	LEI/sec
SOX BLDG VENT RFD.	19.00	LEI/sec
FUEL FLR EXH RFD.	2.000	LEI/sec
TO BLDG VENT RFD.	9.000	LEI/sec
SOX BLDG VENT RFD.	2.000	LEI/sec
SERVICE WATER RFD.	0.1500E-05	LEI/ml
STRICK HI RANGE RFD.	0.2819	CI/sec
TO MLB HI RANGE RFD.	0.0000E+00	CI/sec
SOX MLB HI RANGE RFD.	0.0000E+00	CI/sec
OFFGAS RFD.	1.000	mR/HR
DRYWELL RFD.	7.578	R/HR
HIGHEST NSL RFD MIN	1968.	mR/HR
DRYWELL PRESSURE	1.900	PSIG
DRYWELL TEMPERATURE	133.0	Deg F
TURBIS WATER FUG TYP	76.37	Deg F
TURBIS WATER LEVEL	13.91	FT
DRYWELL H2 CONC	0.3000	Z
DRYWELL O2 CONC	1.000	Z
CST LEVEL	250.0	Inch

4

Emergency Director Approval: _____

TIME: _____

FORM SAP 1.4
MESSAGE SHEET

Page 14 of 28

MESSAGE NO. 9

Exercise Time: 0830

Issued To: Control Room

Issued By: Lead Controller

MESSAGE

The following annunciators alarm:
09-7-3-42 Hydrogen Seal Oil Trouble

Plant parameters as indicated on SPDS display.

08:02:10 INPT

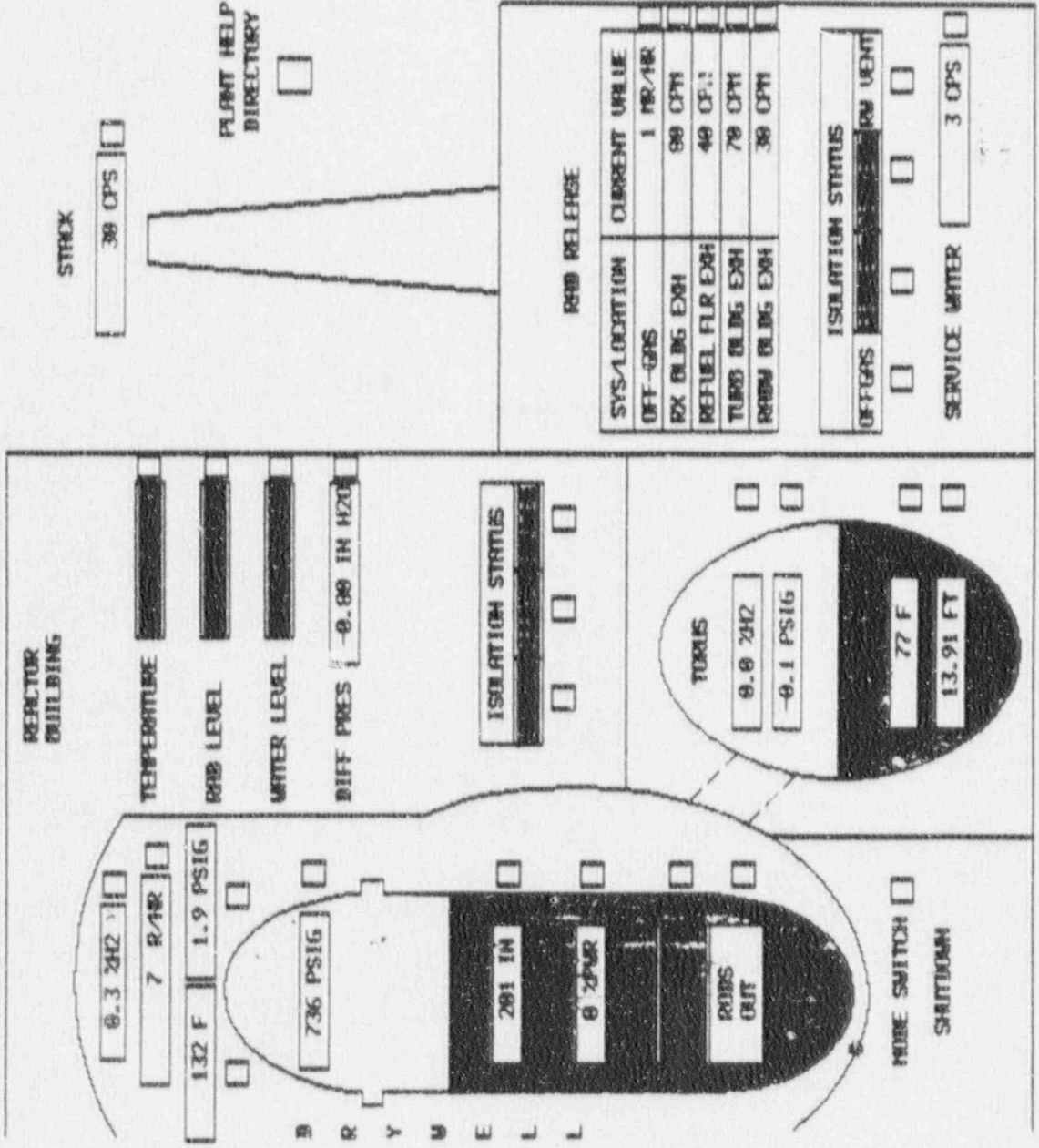
131.840 F

// 08:01:28 ROOM

281.000 IN

PLANT

PLANT



08:02:10 DMT

131.000 F

// 00:01:20 PM

201.000 IN

Form EHP-1.1.3
 James A. Fitzpatrick Nuclear Power Plant
 PART III - Plant Parameters

Sequence No. _____

APRM REACTOR POWER	0.0000E+00	%
IRM REACTOR POWER	0.0000E+00	%
SRM REACTOR POWER	0.0000E+00	CPS
RX WATER LEVEL	201.0	Inch TIF
FEEDWATER FLOW	0.3000	MLD/HR
RCLC FLOW	300.0	GPM
REACTOR PRESSURE	736.2	PSIG
HPCI FLOW	0.0000E+00	GPM
LPCI A FLOW	0.0000E+00	GPM
LPCI B FLOW	0.0000E+00	GPM
"A" CORE SPRAY FLOW	0.0000E+00	GPM
"B" CORE SPRAY FLOW	0.0000E+00	GPM
BRYWELL SURF LEVEL	15.00	Inch
STRCK GAS RAB.	75.00	UCI/sec
RX DLG VENT RAB.	19.00	UCI/sec
R/EL FLR EXH RAB.	2.000	UCI/sec
TO DLG VENT RAB.	9.000	UCI/sec
RM DLG VENT RAB.	2.000	UCI/sec
SERVICE WATER RAB.	0.1500E-05	UCI/ml
STRCK HI SPRGE RAB.	0.2819	CI/sec
TO DLG HI SPRGE RAB.	0.0000E+00	CI/sec
RM DLG HI SPRGE RAB.	0.0000E+00	CI/sec
OFFGAS RAB.	1.000	ml/HR
BRYWELL RAB.	7.134	R/HR
HIGHEST MEL RAB RUN	2420.	ml/HR
BRYWELL PRESSURE	1.960	PSIG
BRYWELL TEMPERATURE	131.8	Deg F
TURBIS WATER AUG TIF	76.74	Deg F
TURBIS WATER LEVEL	13.91	FT
BRYWELL H2 CONC	0.3000	%
BRYWELL O2 CONC	1.000	%
CST LEVEL	250.0	Inch

5

Emergency Director Approval: _____

TIME: _____

MESSAGE SHEET

MESSAGE NO. 10

Exercise Time: 0845

Issued To: Control Room

Issued By: Lead Controller

MESSAGE

Plant parameters as indicated on SPDS display.

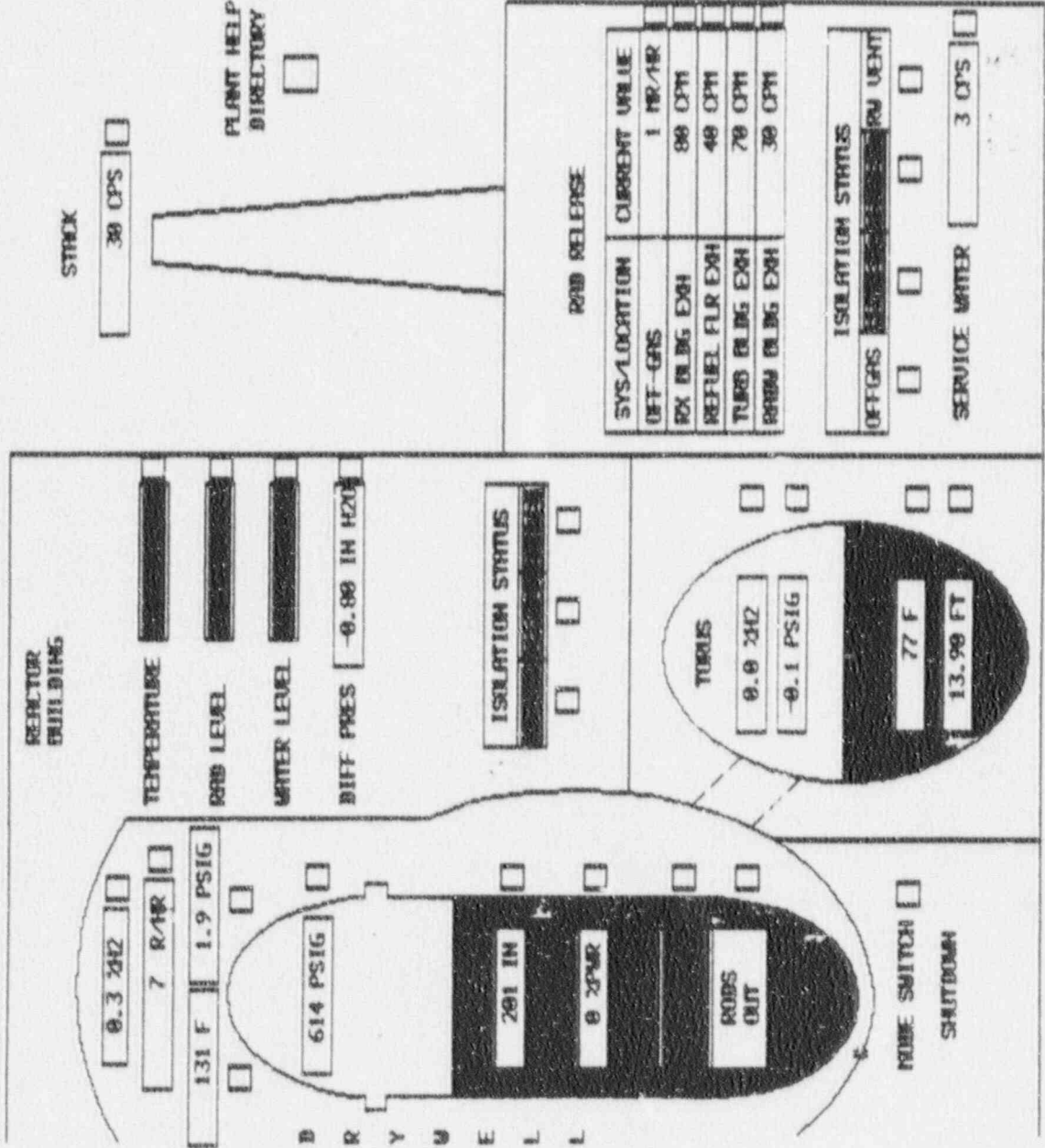
08:02:10 IMT

130.750 F // 08:01:20 ROSM

201.000 IN

PLANT

PLANT



08:02:10 BMT

130.030 F // 08:01:20 ROOM

201.0000 IH

Form ERP-1.1.3
 James R. Fitzpatrick Nuclear Power Plant
 PART III - Plant Parameters

Sequence No. _____

REFRM REACTOR PUMER	0.0000E+00	z
IRM REACTOR PUMER	0.0000E+00	z
SRM REACTOR PUMER	0.0000E+00	DPS
RK WATER LEVEL	201.0	Inch, TRF
FEEDWATER FLOW	0.30000	MLB/HR
RCIC FLOW	300.0	GPM
REACTOR PRESSURE	607.0	PSIG
HPCI FLOW	0.0000E+00	GPM
LPCI A FLOW	0.0000E+00	GPM
LPCI B FLOW	0.0000E+00	GPM
"A" CORE SPRAY FLOW	0.0000E+00	GPM
"B" CORE SPRAY FLOW	0.0000E+00	GPM
IRYWELL SUMP LEVEL	15.00	Inch
STREX GAS RDB.	75.00	UEI/sec
RZ BLDG VENT RDB.	19.00	UEI/sec
REFUEL FLR EXH RDB.	2.000	UEI/sec
TO BLDG VENT RDB.	9.1000	UEI/sec
RM BLDG VENT RDB.	2.1000	UEI/sec
SERVICE WATER RDB.	0.1500E-05	UEI/ml
STREX HI RANGE RDB.	0.2019	CI/sec
TO BLD HI RANGE RDB.	0.0000E+00	CI/sec
RM BLD HI RANGE RDB.	0.0000E+00	CI/sec
OFFGAS RDB.	1.000	mR/HR
IRYWELL RDB.	6.734	R/HR
HIGHEST NSL RDB MIN	285%	mR/HR
IRYWELL PRESSURE	1.900	PSIG
IRYWELL TEMPERATURE	130.7	Deg F
TURBUS WATER RIG TRP	77.00	Deg F
TURBUS WATER LEVEL	13.90	FT
IRYWELL H2 CONC	0.3000	z
IRYWELL O2 CONC	1.000	z
CST LEVEL	250.0	Inch

4

Emergency Director Approval: _____

TIME: _____

MESSAGE SHEET

MESSAGE NO. 11

Exercise Time: 0900

Issued To: Control Room

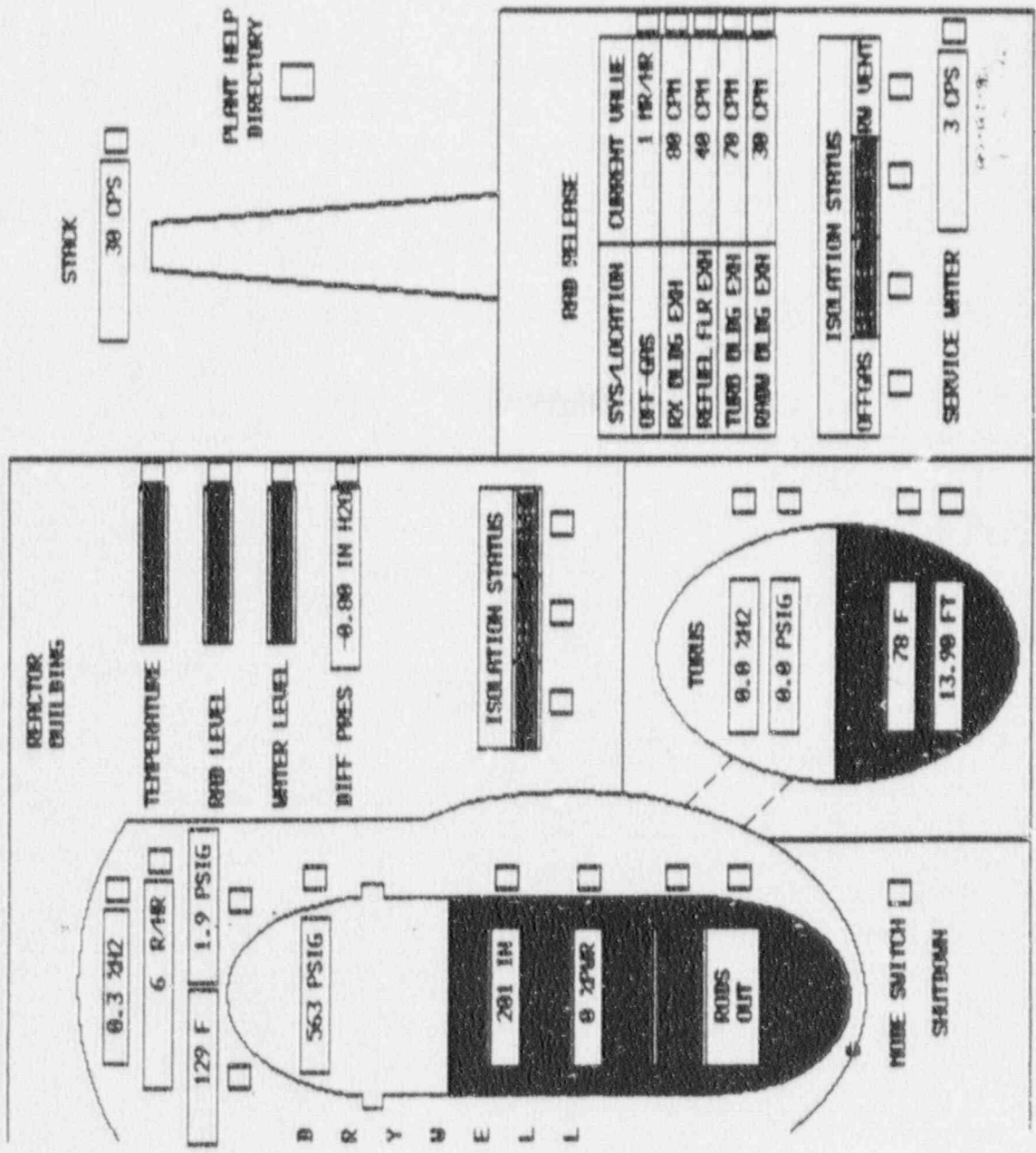
Issued By: Lead Controller

MESSAGE

Plant parameters as indicated on SPDS display.

08:02:10 DWT 129.310 F // 08:01:28 ROOM 281.000 IN

PLANT



08:02:10 067

129.390 F

// 08:01:28 ROMA

281.000 IN

Form EEP-1.1.3
 James A. Fitzpatrick Nuclear Power Plant
 PART III - Plant Parameters

Sequence No. _____

APRM REACTOR POWER	0.0000E+00	λ
IRM REACTOR POWER	0.0000E+00	λ
SOM REACTOR POWER	0.0000E+00	CPS
RX WATER LEVEL	281.0	Inch TIF
FEEDWATER FLOW	0.3000	MLD/HR
REC FLOW	300.0	GPM
REACTOR PRESSURE	565.0	PSIG
RPCI FLOW	0.0000E+00	GPM
LPCI A FLOW	0.0000E+00	GPM
LPCI B FLOW	0.0000E+00	GPM
"A" CORE SPRAY FLOW	0.0000E+00	GPM
"B" CORE SPRAY FLOW	0.0000E+00	GPM
BRWELL SUMP LEVEL	15.00	Inch
STRCK GAS RAB.	75.00	UEI/sec
RX DLBG VENT RAB.	19.00	UEI/sec
FUEL FLR EXH RAB.	2.000	UEI/sec
TB DLBG VENT RAB.	9.000	UEI/sec
RY DLBG VENT RAB.	2.000	UEI/sec
SERVICE WATER RAB.	0.1500E-05	UEI/m
STRCK HI RANGE RAB.	0.2819	CI/sec
TD DLB HI RANGE RAB.	0.1863	CI/sec
RY DLB HI RANGE RAB.	0.0000E+00	CI/sec
OFFGAS RAB.	1.000	MB/HR
BRWELL RAB.	6.25E	R/HR
HIGHEST PER. RAB MIN	3.37%	MB/HR
BRWELL PRESSURE	1.900	PSIG
BRWELL TEMPERATURE	129.4	Deg F
TURBIS WATER AUG TYP	77.50	Deg F
TURBIS WATER LEVEL	13.90	FT
BRWELL H2 CONE	0.3000	λ
BRWELL O2 CONE	1.000	λ
CST LEVEL	250.0	Inch

4

Emergency Director Approval: _____

TIME: _____

MESSAGE SHEET

MESSAGE NO. 12Exercise Time: 0915Issued To: Control RoomIssued By: Lead Controller

MESSAGE

NMP Line #4 is restored and T-3 transformer can be placed back in service.

Plant parameters as indicated on SPDS display.

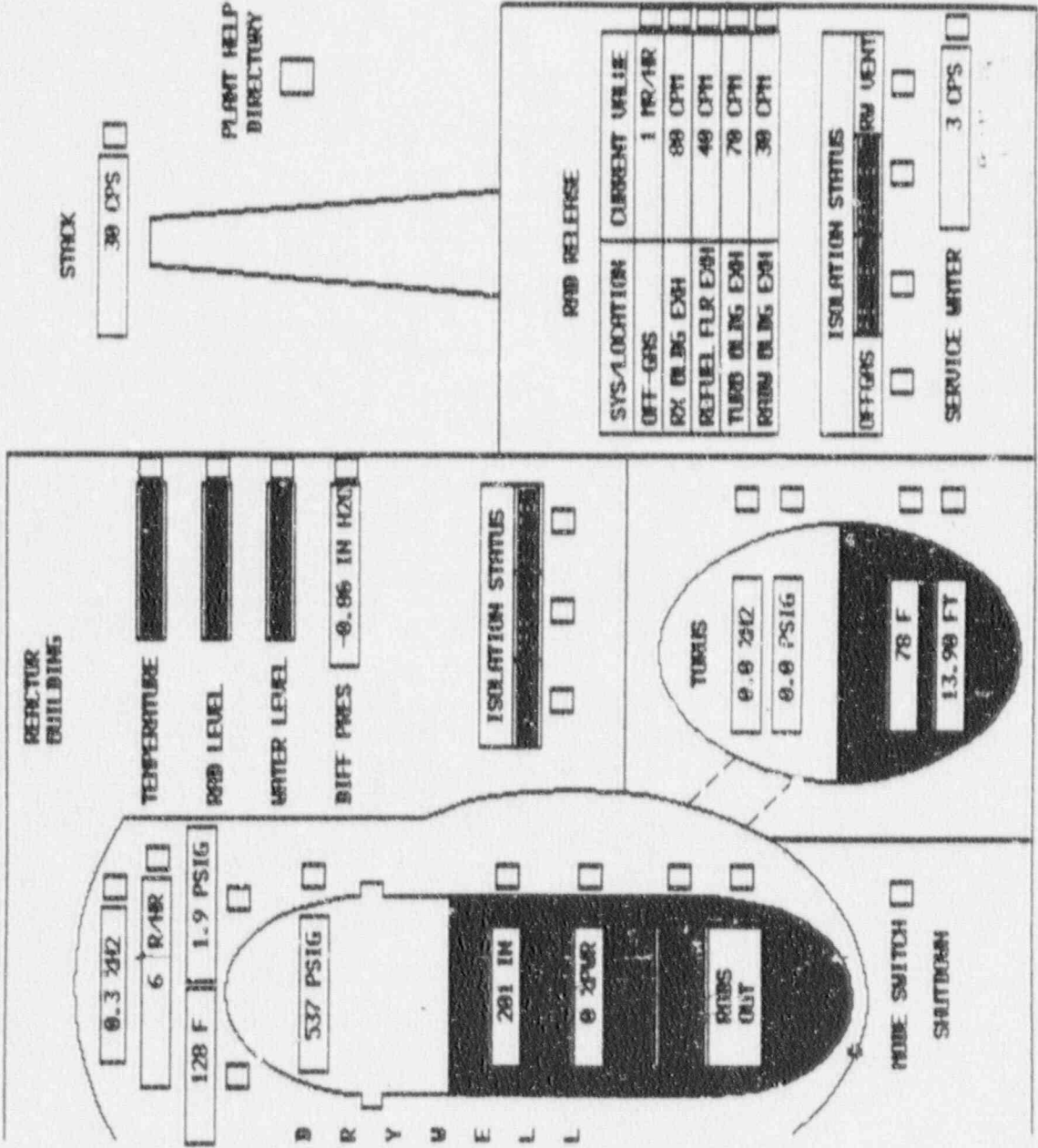
08:02:10 IMT

128.359 F // 08:01:28 ROOM

281.000 IN

PLANT

PLAY



08:02:10 DUT

128.200 F

// 00:01:20 P00L

201.000 IN

Form EFP-1.1.3
 James A. Fitzpatrick Nuclear Power Plant
 PART III - Plant Parameters

Sequence No. _____

APRM REACTOR POWER	0.0000E+00	%
IRM REACTOR POWER	0.0000E+00	%
SRM REACTOR POWER	0.0000E+00	CPS
FX WATER LEVEL	201.0	Inch TFF
FEEDWATER FLOW	0.3000	MLB/HR
RCIC FLOW	300.0	GPM
REACTOR PRESSURE	534.0	PSIG
HPCI FLOW	0.0000E+00	GPM
LPCI A FLOW	0.0000E+00	GPM
LPCI B FLOW	0.0000E+00	GPM
"A" CORE SPRAY FLOW	0.0000E+00	GPM
"B" CORE SPRAY FLOW	0.0000E+00	GPM
DRYWELL SUMP LEVEL	15.00	Inch
STACK GAS RFD.	75.00	ICI/sec
OX BLDG VENT RFD.	19.00	ICI/sec
AUEL FLR EXH RFD.	2.000	ICI/sec
TB BLDG VENT RFD.	9.000	ICI/sec
PAW BLDG VENT RFD.	2.000	ICI/sec
SERVICE WATER RFD.	0.1500E-05	ICI/MI
STACK HI RANGE RFD.	0.2819	CI/sec
TD MLB HI RANGE RFD.	3.727	CI/sec
RM MLB HI RANGE RFD.	0.0000E+00	CI/sec
OFF GAS RFD.	1.000	HR/HR
DRYWELL RFD.	5.853	R/HR
HIGHEST PSL RFD MIN	3001.	HR/HR
DRYWELL PRESSURE	1.900	PSIG
DRYWELL TEMPERATURE	128.3	DEG F
TURBUS WATER RUG TYP	77.04	DEG F
TURBUS WATER LEVEL	13.90	FT
DRYWELL H2 CONC	0.3000	%
DRYWELL O2 CONC	1.000	%
CST LEVEL	250.0	Inch

Emergency Director Approval: _____

TIME: _____

FORM SAP 1.4
MESSAGE SHEET

Page 18 of 28

MESSAGE NO. 13

Exercise Time: 0930

Issued To: Control Room

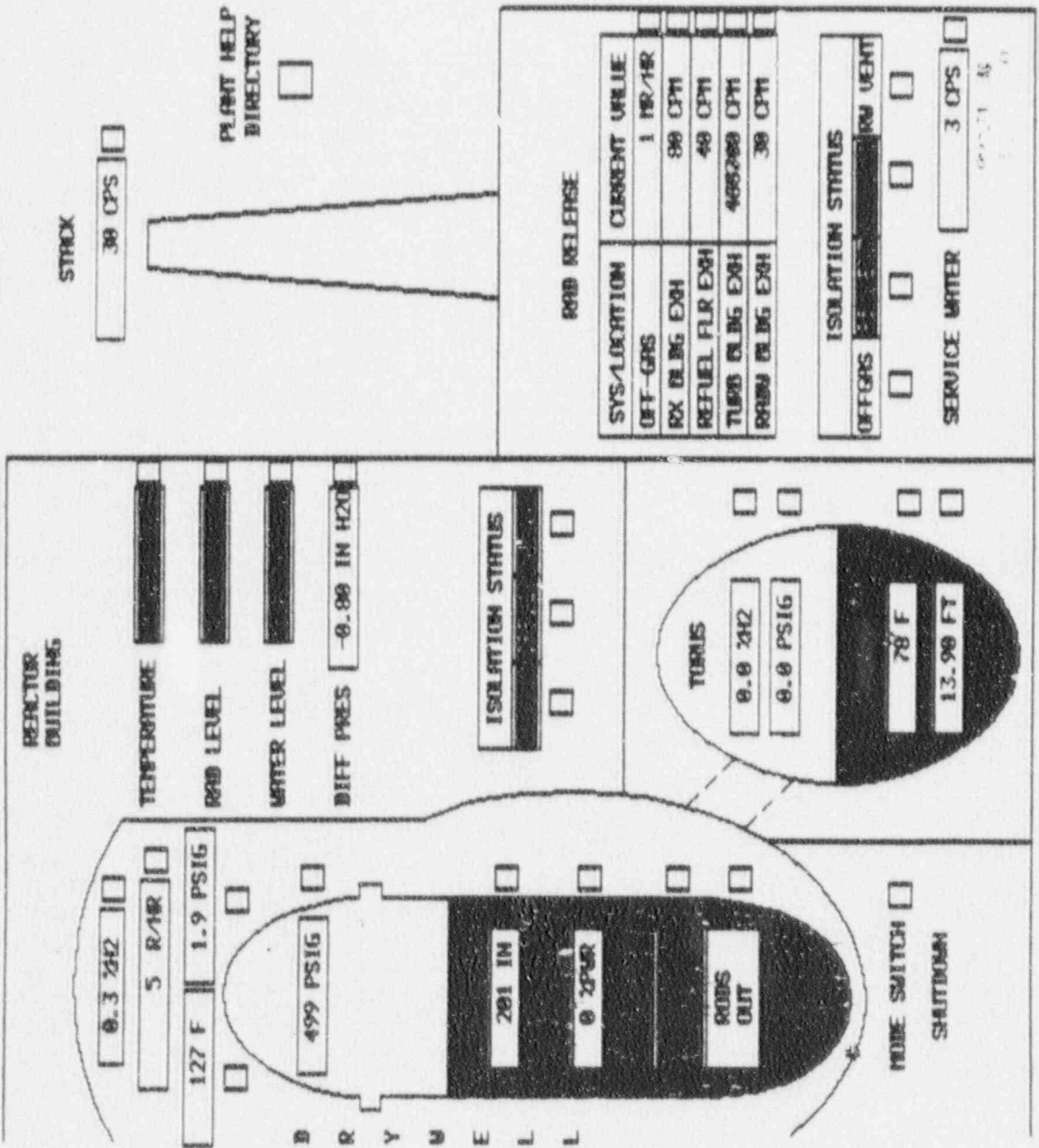
Issued By: Lead Controller

MESSAGE

An explosion is heard coming from the Turbine Building.
Plant parameters as indicated on SPDS display.

08:02:10 BWT 533170.028 ETH // 08:01:28 EXM 201.000 INI

PLANT



Form EFP-1.1.3
 James A. Fitzpatrick Nuclear Power Plant
 PART III - Plant Parameters

Sequence No. _____

APRM REACTOR POWER	0.0000E+00	%
IRRM REACTOR POWER	0.0000E+00	%
SRR REACTOR POWER	0.0000E+00	CPS
RX WATER LEVEL	201.0	Inch TRF
FEEDWATER FLOW	0.3000	MLD/HR
RTC FLOW	300.0	GPM
REACTOR PRESSURE	493.6	PSIG
RPCI FLOW	0.0000E+00	GPM
LPCI A FLOW	0.0000E+00	GPM
LPCI B FLOW	0.0000E+00	GPM
"A" CORE SPRAY FLOW	0.0000E+00	GPM
"B" CORE SPRAY FLOW	0.0000E+00	GPM
DRYWELL SLIP LEVEL	15.00	Inch
STACK GAS RAD.	75.00	UCI/sec
RX BLDG VENT RAD.	19.00	UCI/sec
RFUEL FLR EXH RAD.	2.000	UCI/sec
TD BLDG VENT RAD.	[REDACTED]	UCI/sec
RW BLDG VENT RAD.	2.000	UCI/sec
SERVICE WATER RAD.	0.1500E-05	UCI/ml
STACK HI RANGE RAD.	0.2819	CI/sec
TD BLD HI RANGE RAD.	[REDACTED]	CI/sec
RW BLD HI RANGE RAD.	0.0000E+00	CI/sec
OFFGAS RAD.	1.000	mR/hr
DRYWELL RAD.	5.360	R/hr
HIGHEST MSB RAD MON	4329.	mR/hr
DRYWELL PRESSURE	1.900	PSIG
DRYWELL TEMPERATURE	126.9	Deg F
TORUS WATER AVG TYP	78.26	Deg F
TORUS WATER LEVEL	13.90	FT
DRYWELL H2 CONC	0.3000	%
DRYWELL O2 CONC	1.000	%
CST LEVEL	259.0	Inch

Emergency Director Approval: _____ TIME: _____

MESSAGE SHEET

MESSAGE NO. 14

Exercise Time: 0945

Issued To: Control Room

Issued By: Lead Controller

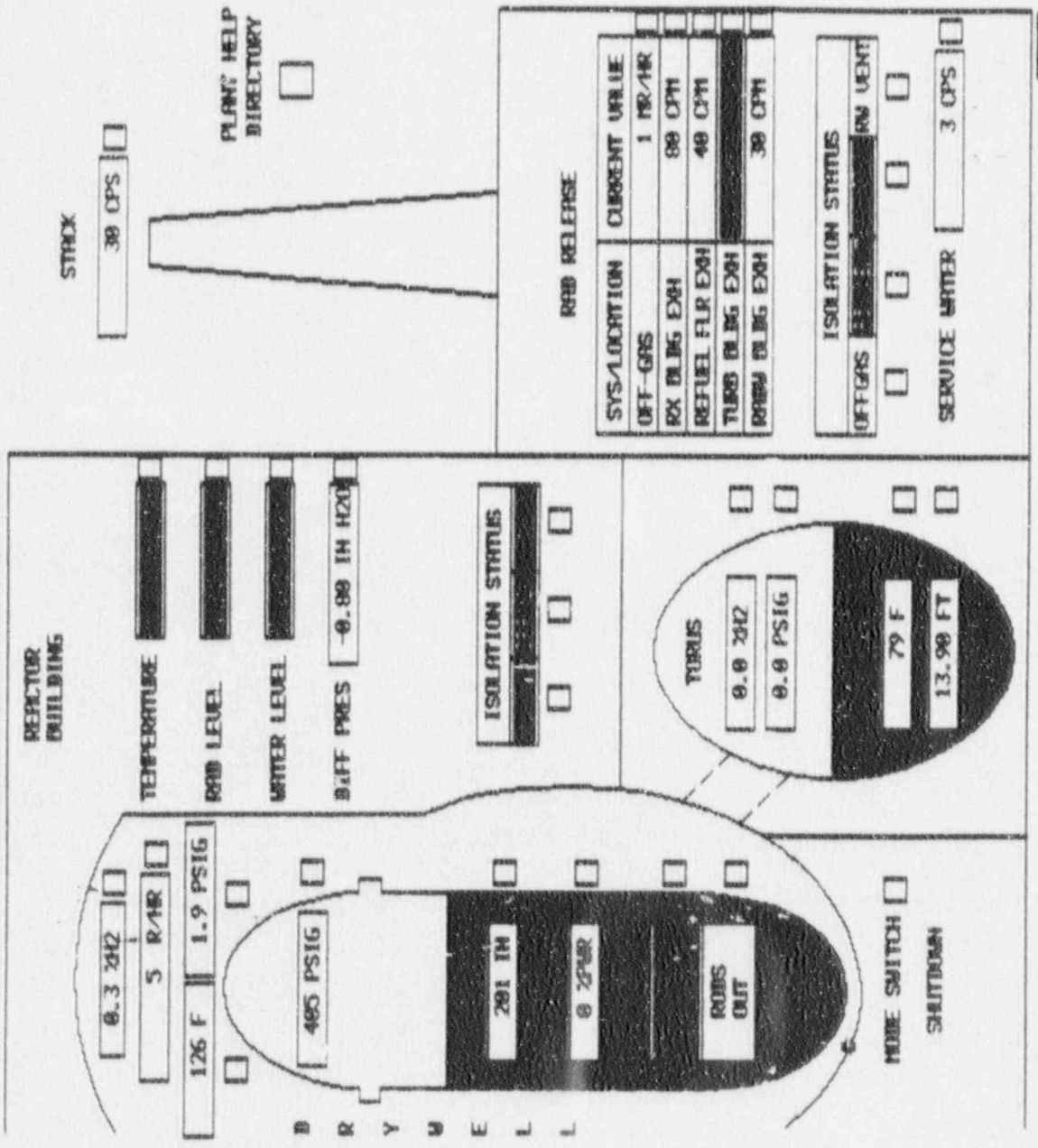
MESSAGE

Plant parameters as indicated on SPDS display.

09:31:58 1801-021-22 1R/1R // 09:31:58 1801-021-07 1R/1R

PLANT

PLANT



09:31:58 18RM-021-22 [REDACTED] NR/HR // 09:31:58 18RM-021-07 [REDACTED] NR/HR

Form ERP-1.1.3
James A. Fitzpatrick Nuclear Power Plant
PART III - Plant Parameters

Sequence No. _____

APRM REACTOR POWER	0.0000E+00	Z
IRM REACTOR POWER	0.0000E+00	Z
SRM REACTOR POWER	0.0000E+00	CPS
RX WATER LEVEL	201.0	Inch T/F
FEEDWATER FLOW	0.3000	MLB/HR
RCIC FLOW	300.0	GPM
REACTOR PRESSURE	409.1	PSIG
HPCI FLOW	0.0000E+00	GPM
LPCI A FLOW	0.0000E+00	GPM
LPCI B FLOW	0.0000E+00	GPM
"A" CORE SPRAY FLOW	0.0000E+00	GPM
"B" CORE SPRAY FLOW	0.0000E+00	GPM
DRYWELL SUMP LEVEL	15.00	Inch
STACK GAS RAD.	75.00	UCI/sec
RX BLDG VENT RAD.	19.00	UCI/sec
RFUEL FLR EXH RAD.	2.000	UCI/sec
TB BLDG VENT RAD.	[REDACTED]	UCI/sec
RV BLDG VENT RAD.	2.000	UCI/sec
SERVICE WATER RAD.	0.1500E-05	UCI/mi
STACK HI RANGE RAD.	0.2819	CI/sec
TO BLD HI RANGE RAD.	[REDACTED]	CI/sec
RV BLD HI RANGE RAD.	0.0000E+00	CI/sec
OFFGAS RAD.	1.000	mR/hr
DRYWELL RAD.	4.914	R/hr
HIGHEST MSL RAD MON	4006.	mR/hr
DRYWELL PRESSURE	1.900	PSIG
DRYWELL TEMPERATURE	125.7	Deg F
TORUS WATER AVG TMP	78.64	Deg F
TORUS WATER LEVEL	13.90	FT
DRYWELL H2 CONC	0.3000	Z
DRYWELL O2 CONC	1.000	Z
CST LEVEL	250.0	Inch

5

Emergency Director Approval: _____ TIME: _____

FORM SAP 1.4
MESSAGE SHEET

Page 20 of 28

MESSAGE NO. 15

Exercise Time: 1000

Issued To: Control Room

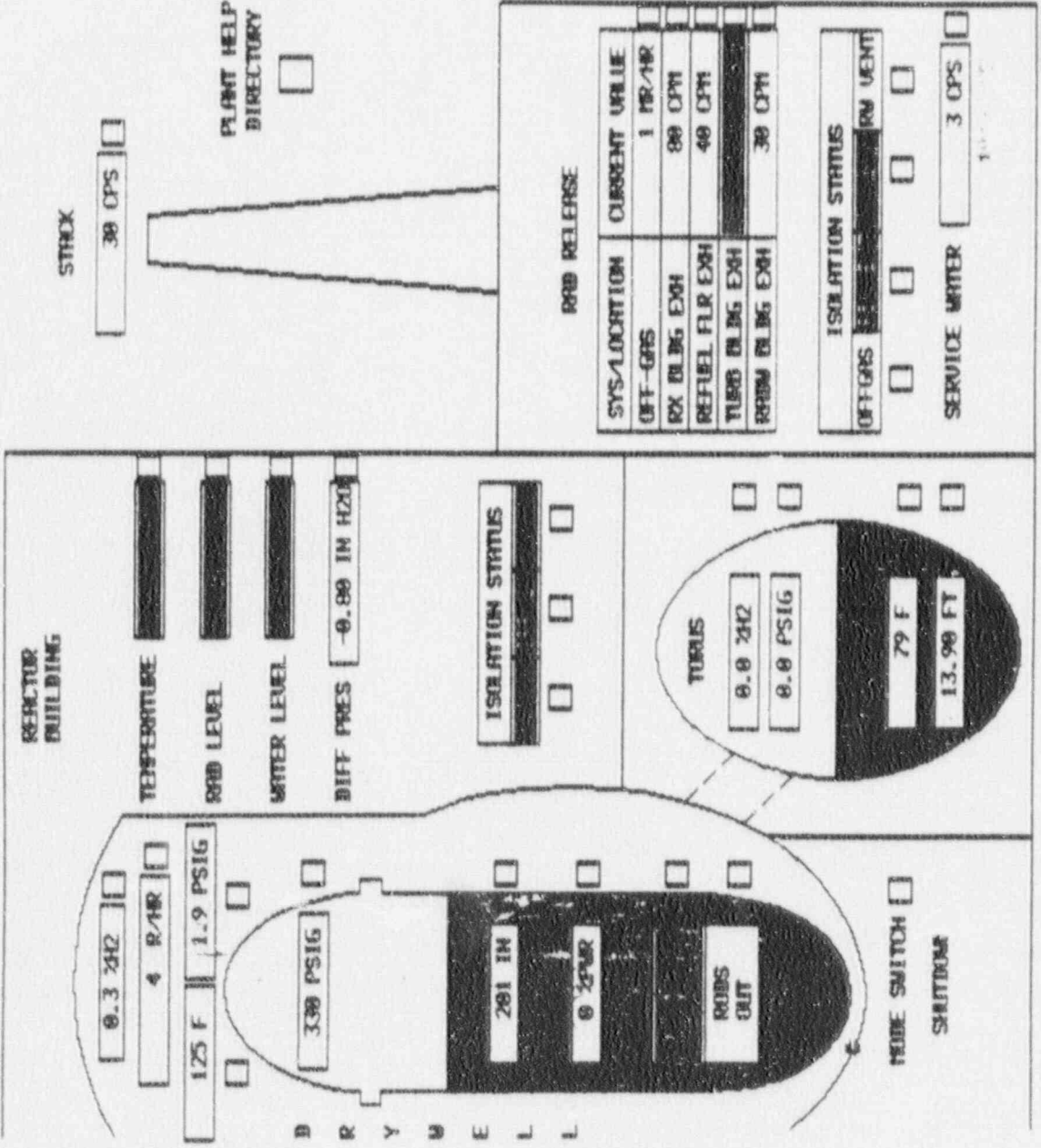
Issued By: Lead Controller

MESSAGE

Plant parameters as indicated on SPDS display.

PLANT

PLANT



REACTOR BUILDING

TEMPERATURE

RAB LEVEL

WATER LEVEL

DIFF PRES -0.00 IN H2O

ISOLATION STATUS

D R Y W E L L

0.3 2HZ

4 R/HR

1.25 F

1.9 PSIG

330 PSIG

201 IN

0 2/HR

ROBS OUT

MODE SWITCH

SHUTDOWN

TURBINE

0.0 2HZ

0.0 PSIG

79 F

13.90 FT

STACK

30 OPS

PLANT HELP
DIRECTORY

RAB RELEASE

SYS/LOCATION	CURRENT VALUE
OFF-GRS	1 NR/HR
RX BLDG EXH	80 CPM
REFUEL FLR EXH	40 CPM
TURB BLDG EXH	
RADM BLDG EXH	30 CPM

ISOLATION STATUS

OFF GRS

SERVICE WATER

3 OPS

Form EEP-1.1.3
 James A. Fitzpatrick Nuclear Power Plant
 PART III - Plant Parameters

Sequence No. _____

APRM REACTOR POWER	0.0000E+00	z
IRM REACTOR POWER	0.0000E+00	z
SRM REACTOR POWER	0.0000E+00	OPS
RX WATER LEVEL	201.0	Inch TH
FEEDWATER FLOW	0.3000	10.0/HR
ACIC FLOW	254.6	GPM
REACTOR PRESSURE	324.1	PSIG
HPCI FLOW	0.0000E+00	GPM
LPCI A FLOW	125.4	GPM
LPCI B FLOW	0.0000E+00	GPM
"A" CORE SPRAY FLOW	0.0000E+00	GPM
"B" CORE SPRAY FLOW	0.0000E+00	GPM
BRYWELL SUMP LEVEL	15.00	Inch
STOX GAS RAD.	75.00	UCI/sec
RX D/BG VENT RAD.	19.00	UCI/sec
FUEL FLR EXH RAD.	2.000	UCI/sec
TB D/BG VENT RAD.	[REDACTED]	UCI/sec
RY D/BG VENT RAD.	2.000	UCI/sec
SERVICE WATER RAD.	0.1500E-05	UCI/ml
STOX HI RANGE RAD.	0.2819	CI/sec
TB D/B HI RANGE RAD.	[REDACTED]	CI/sec
RY D/B HI RANGE RAD.	0.0000E+00	CI/sec
OFFGAS RAD.	1.000	mR/hr
BRYWELL RAD.	4.465	R/hr
HIGHEST MSL RAD MEN	5286.	mR/hr
BRYWELL PRESSURE	1.900	PSIG
BRYWELL TEMPERATURE	124.5	Deg F
TURBIS WATER AUG TRP	79.03	Deg F
TURBIS WATER LEVEL	13.90	FT
BRYWELL H2 CONC	0.3000	z
BRYWELL O2 CONC	1.000	z
CST LEVEL	250.0	Inch

Emergency Director Approval: _____ TIME: _____

FORM SAP 1.4
MESSAGE SHEET

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MESSAGE NO. 16

Exercise Time: 1015

Issued To: Control Room

Issued By: Lead Controller

MESSAGE

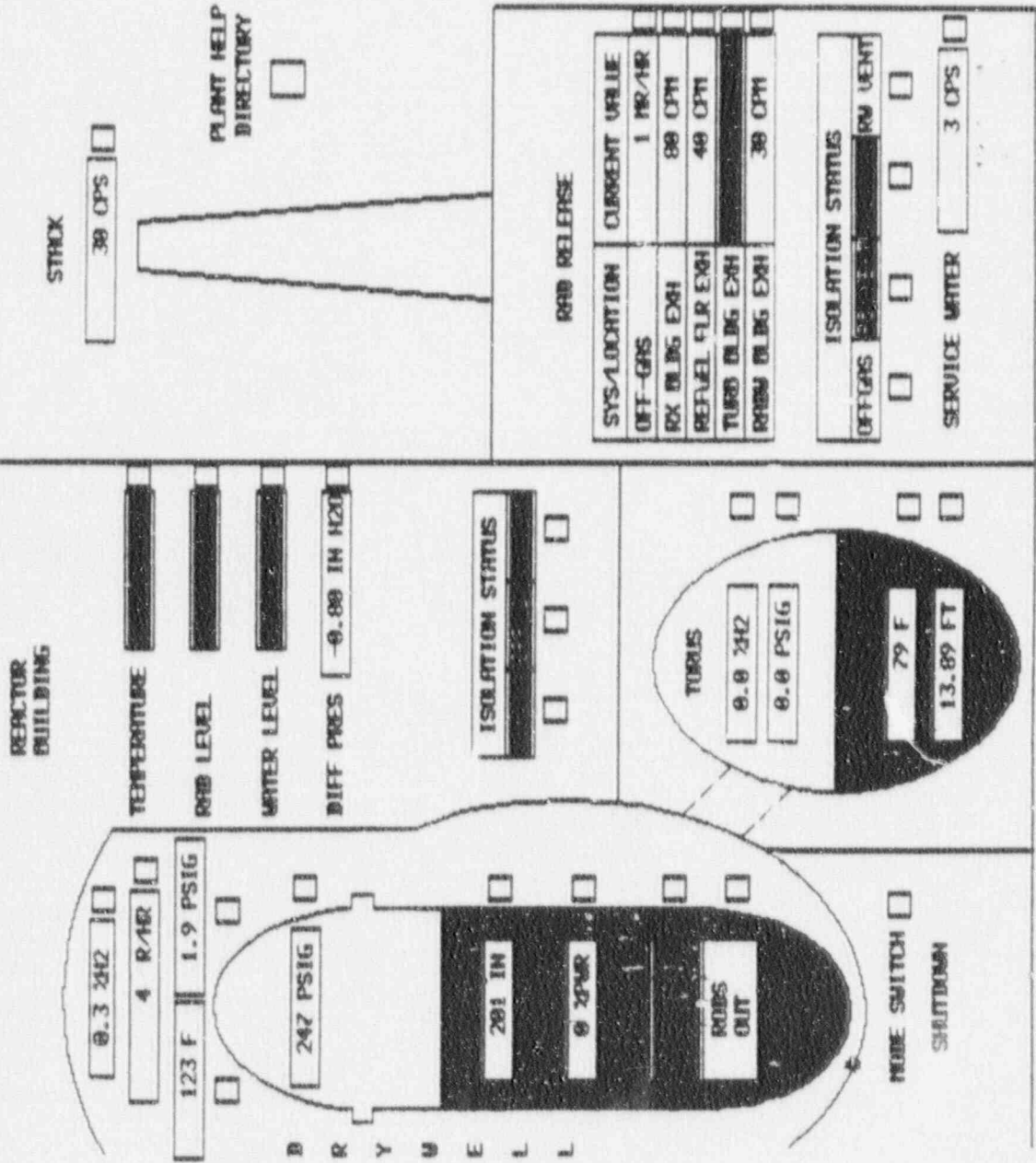
The following annunciators alarm:

09-8-1-20 125VDC Batt Chgr A Current or Output Lo

Plant parameters as indicated on SPDS display.

09:31:58 180M-021-72 MR/AR // 09:31:58 180M-021-07 MR/AR

PLANT PLANT



Form ERP-1.1.3
 James A. Fitzpatrick Nuclear Power Plant
 PART III - Plant Parameters

Sequence No. _____

RRPM REACTOR POWER	0.0000E+00	%
IRM REACTOR POWER	0.0000E+00	%
SRM REACTOR POWER	0.0000E+00	CPS
RX WATER LFWD	201.0	Inch, TRF
FEEDWATER FLOW	0.3000	MLB/HR
REACTOR FLOW	0.0000E+00	GPM
REACTOR PRESSURE	241.7	PSIG
HPCI FLOW	0.0000E+00	GPM
LPCI A FLOW	342.5	GPM
LPCI B FLOW	0.0000E+00	GPM
"A" CORE SPRAY FLOW	0.0000E+00	GPM
"B" CORE SPRAY FLOW	0.0000E+00	GPM
BRWELL SUPP LEVEL	15.00	Inch
STRX GAS RDB.	75.00	UEI/sec
RX BLDG VENT RDB.	19.00	UEI/sec
REFUEL FLR EXH RDB.	2.000	UEI/sec
TB BLDG VENT RDB.	2.000	UEI/sec
RY BLDG VENT RDB.	2.000	UEI/sec
SERVICE WATER RDB.	2.000	UEI/sec
STRX HI RANGE RDB.	0.1500E-05	UEI/ml
TB BLD HI RANGE RDB.	0.2819	CI/sec
RY BLD HI RANGE RDB.	0.0000E+00	CI/sec
OFFGAS RDB.	1.000	ml/1hr
BRWELL RDB.	4.831	R/1hr
HIGHEST MSB RDB MIN	5752.	ml/1hr
BRWELL PRESSURE	1.900	PSIG
BRWELL TEMPERATURE	123.3	Deg F
TURBES WATER FLOW TYP	79.40	Deg F
TURBES WATER LEVEL	13.89	FT
BRWELL H2 CONC	0.3000	%
BRWELL O2 CONC	1.800	%
CST LEVEL	250.0	Inch

Emergency Director Approval: _____ TIME: _____

FORM SAP 1.4
MESSAGE SHEET

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MESSAGE NO. 17

Exercise Time: 1030

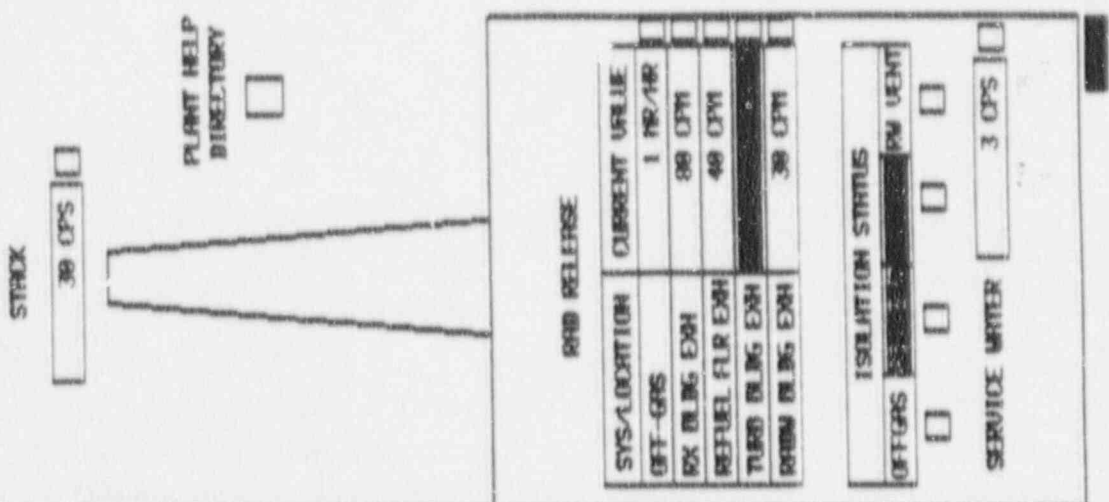
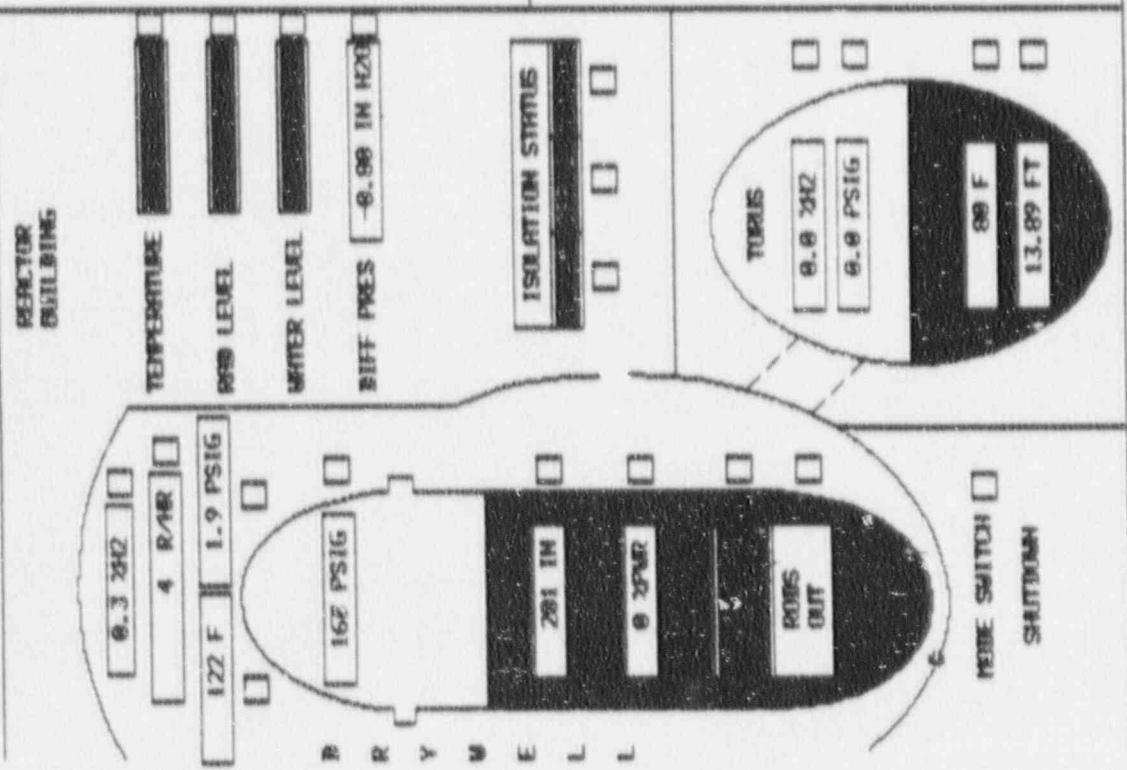
Issued To: Control Room

Issued By: Lead Controller

MESSAGE

Plant parameters as indicated on SPDS display.

PLANT



B
R
Y
M
E
L
L

Form EBP-1.1.3
 James A. Fitzpatrick Nuclear Power Plant
 PART III - Plant Parameters

Sequence No. _____

APRM REACTOR POWER	0.0000E+00	Z
IRM REACTOR POWER	0.0000E+00	Z
SRM REACTOR POWER	0.0000E+00	CPS
RX WATER LEVEL	281.0	Inch TRF
FEEDWATER FLOW	0.3000	MLB/HR
REC FLOW	0.0000E+00	GPM
REACTOR PRESSURE	161.4	PSIG
RPCI FLOW	0.0000E+00	GPM
LPCI A FLOW	295.4	GPM
LPCI B FLOW	0.0000E+00	GPM
"A" CORE SPRAY FLOW	0.0000E+00	GPM
"B" CORE SPRAY FLOW	0.0000E+00	GPM
RYMELL SWAMP LEVEL	15.00	Inch
STACK GAS RAD.	75.00	UCI/sec
RX DLING VENT RAD.	19.00	UCI/sec
RFUEL FLR EXH RAD.	2.000	UCI/sec
TR DLING VENT RAD.	2.000	UCI/sec
RM DLING VENT RAD.	2.000	UCI/sec
SERVICE WATER RAD.	0.1300E-05	UCI/m
STACK HI RANGE RAD.	0.2819	CI/sec
TO DLB HI RANGE RAD.	0.0000E+00	CI/sec
RM DLB HI RANGE RAD.	1.000	m2/Hr
OFFGAS RAD.	3.688	R/HR
RYMELL RAD.	6.205	m2/Hr
HIGHEST MSB RAD NUM	1.900	PSIG
RYMELL PRESSURE	122.1	Bag F
RYMELL TEMPERATURE	79.76	Bag F
TURBUS WATER RAD TRF	13.89	FT
TURBUS WATER LEVEL	0.3000	Z
RYMELL H2 CONC	1.000	Z
RYMELL O2 CONC	250.0	Inch
CST LEVEL		

5

Emergency Director Approval: _____ TIME: _____

MESSAGE SHEET

MESSAGE NO. 18

Exercise Time: 1045

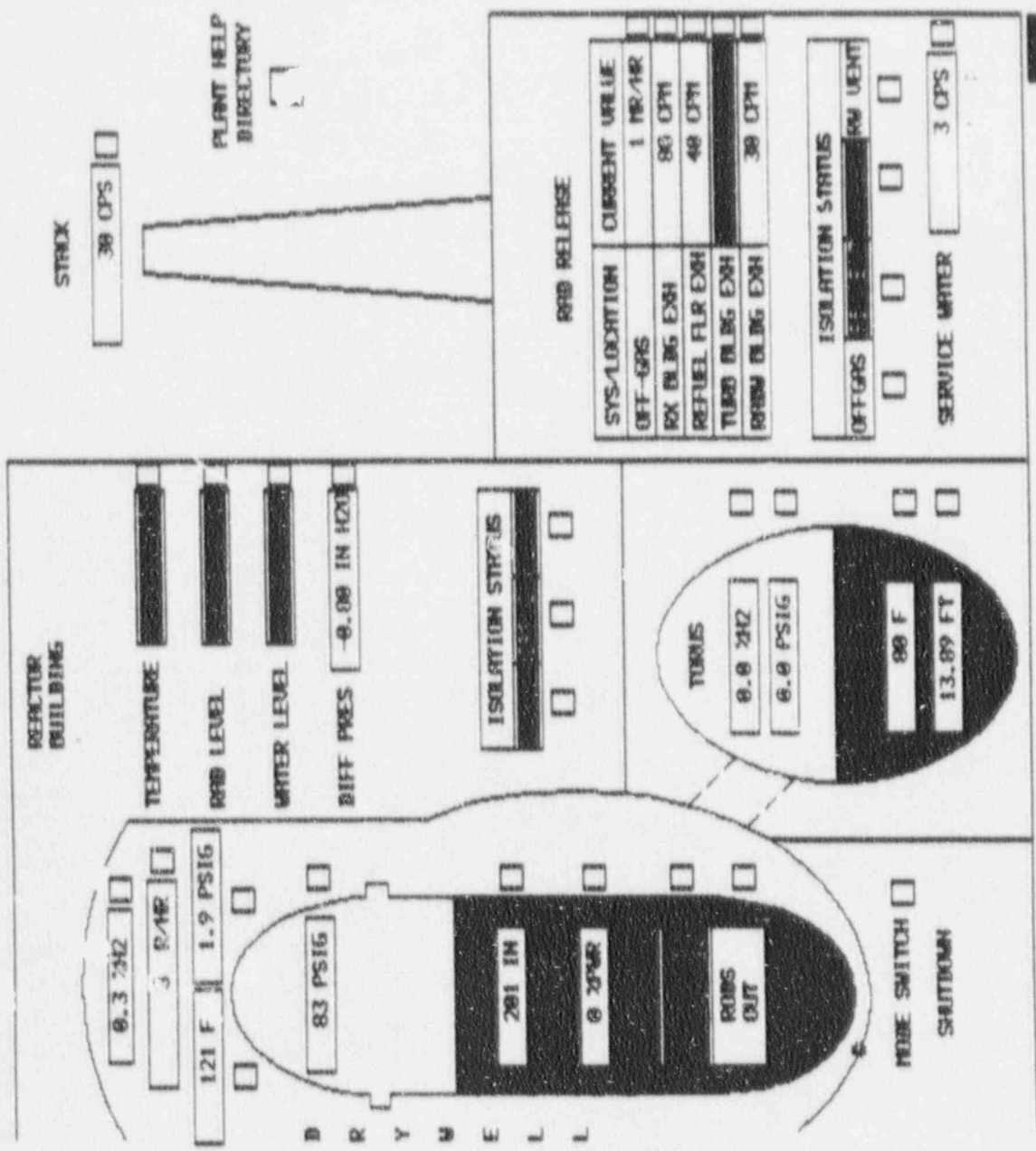
Issued To: Control Room

Issued By: Lead Controller

MESSAGE

Plant parameters as indicated on SPDS display.

PLANT



Form EHP-1.1.3
 James R. Fitzpatrick Nuclear Power Plant
 PART III - Plant Parameters

Sequence No. _____

APRM REACTOR POWER	0.0000E+00	z
IRM REACTOR POWER	0.0000E+00	z
SRM REACTOR POWER	0.0000E+00	DPS
RX WATER LEVEL	281.0	Inch THF
FEEDWATER FLOW	0.3000	MLB/HR
REC FLOW	0.0000E+00	GPM
REACTOR PRESSURE	77.79	PSIG
HPCI FLOW	0.0000E+00	GPM
LPCI A FLOW	246.4	GPM
LPCI B FLOW	0.0000E+00	GPM
"A" CORE SPRAY FLOW	0.0000E+00	GPM
"B" CORE SPRAY FLOW	0.0000E+00	GPM
BRYNELL SUPP LEVEL	15.00	Inch
STACK GAS RAD.	75.00	UCI/sec
RX D/BG VENT RAD.	19.00	UCI/sec
FUEL FLR EXH RAD.	2.000	UCI/sec
TO D/BG VENT RAD.	2.000	UCI/sec
RM D/BG VENT RAD.	2.000	UCI/sec
SERVICE WATER RAD.	0.1500E-05	UCI/wl
STACK HI RANGE RAD.	0.2819	CI/sec
TO D/B HI RANGE RAD.	0.0000E+00	CI/sec
RM D/B HI RANGE RAD.	0.0000E+00	CI/sec
OFFGAS RAD.	1.000	mR/hr
BRYNELL RAD.	3.167	R/hr
HIGHEST NSL RAD MON	6678.	mR/hr
BRYNELL PRESSURE	1.900	PSIG
BRYNELL TEMPERATURE	120.9	Beg F
TURBIS WATER AUG THP	80.14	Beg F
TURBIS WATER LEVEL	13.89	FT
BRYNELL H2 CONC	0.3000	z
BRYNELL O2 CONC	1.000	z
CST LEVEL	250.0	Inch

Emergency Director Approval: _____ TIME: _____

MESSAGE SHEET

MESSAGE NO. 19

Exercise Time: 1100

Issued To: Control Room

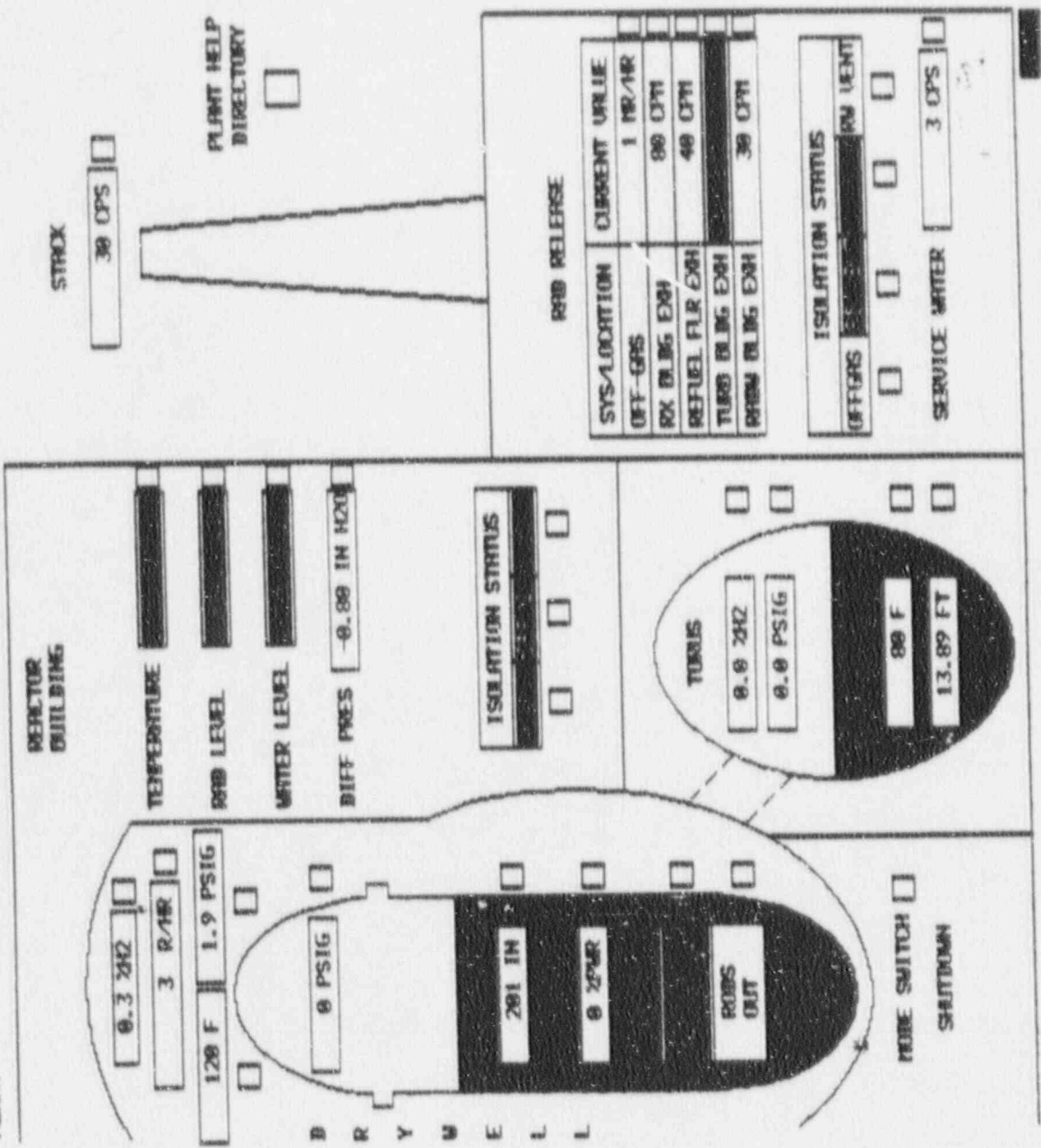
Issued By: Lead Controller

MESSAGE

Plant parameters as indicated on SPDS display.

09:31:58 180M-021-22 [REDACTED] MB/HR // 09:31:58 180M-021-07 [REDACTED] MB/HR

PLANT



Form EFP-1.1.3
 James A. Fitzpatrick Nuclear Power Plant
 PART III - Plant Parameters

Sequence No. _____

APRM REACTOR POWER	0.0000E+00	z
IRM REACTOR POWER	0.0000E+00	z
SRM REACTOR POWER	0.0000E+00	CPS
RK WATER LEVEL	201.0	Inch TWF
FEEDWATER FLOW	0.3000	MLB/HR
RCIC FLOW	0.0000E+00	GPM
REACTOR PRESSURE	0.0000E+00	PSIG
HPCI FLOW	0.0000E+00	GPM
LPIC A FLOW	197.3	GPM
LPIC B FLOW	0.0000E+00	GPM
"A" CORE SPRAY FLOW	0.0000E+00	GPM
"B" CORE SPRAY FLOW	0.0000E+00	GPM
DRYWELL SUMP LEVEL	15.00	Inch
STACK GAS RAD.	75.00	UCI/sec
RK BLDG VENT RAD.	19.00	UCI/sec
RFUEL FLR EXH RAD.	2.000	UCI/sec
TD BLDG VENT RAD.	[REDACTED]	UCI/sec
RW BLDG VENT RAD.	2.000	UCI/sec
SERVICE WATER RAD.	0.1500E-05	UCI/ml
STACK HI RANGE RAD.	0.3819	CI/sec
TD BLD HI RANGE RAD.	[REDACTED]	CI/sec
RW BLD HI RANGE RAD.	0.0000E+00	CI/sec
OFFGAS RAD.	1.000	nR/hr
DRYWELL RAD.	2.727	R/hr
HIGHEST NSL RAD MON	7150.	nR/hr
DRYWELL PRESSURE	1.900	PSIG
DRYWELL TEMPERATURE	119.7	Deg F
TORUS WATER AVG TWP	90.52	Deg F
TORUS WATER LEVEL	13.89	FT
DRYWELL H2 CONC	0.3000	z
DRYWELL O2 CONC	1.000	z
CST LEVEL	250.0	Inch

Emergency Director Approval: _____ TIME: _____

FORM SAP 1.4
MESSAGE SHEET

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MESSAGE NO. 20

Exercise Time: 1115

Issued To: Control Room

Issued By: Lead Controller

MESSAGE

Plant parameters as indicated on SPDS display.

PLANT

REACTOR BUILDING

0.3 242

2 R/1R

119 F 1.9 PSIG

0 PSIG

201 IN

0 2/1R

ROBS OUT

TEMPERATURE

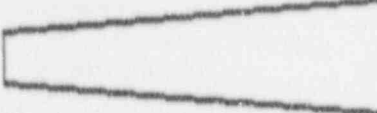
ROB LEVEL

WATER LEVEL

DIFF PRES -0.00 IN H2O

B R Y U E L L

STACK 30 CPS



PLANT HELP DIRECTORY

ISOLATION STATUS

TURBIS

0.0 242

0.1 PSIG

81 F

13.89 FT

NUKE SWITCH

SHUTDOWN

ROB RELEASE

SYS/LOCATION	CURRENT VALUE
OFF-GPS	1 NR/1R
RX BLDG EXH	00 DPM
REFUEL FLR EXH	48 DPM
TURB BLDG EXH	XXXXXXXXXX
RHM BLDG EXH	30 DPM

ISOLATION STATUS

OFFGAS

SERVICE WATER 3 CPS

Form EFP-1.1.3
 James R. Fitzpatrick Nuclear Power Plant
 PART III - Plant Parameters

Sequence No. _____

APRM REACTOR POWER	0.0000E+00	Z
IRM REACTOR POWER	0.0000E+00	Z
SRM REACTOR POWER	0.0000E+00	CPS
ROX WATER LEVEL	281.0	Inch TWF
FEEDWATER FLOW	0.3000	MLB/HR
ROIC FLOW	0.0000E+00	GPM
REACTOR PRESSURE	0.0000E+00	PSIG
APCI FLOW	0.0000E+00	GPM
LPCI A FLOW	147.7	GPM
LPCI B FLOW	0.0000E+00	GPM
"A" CORE SPRAY FLOW	0.0000E+00	GPM
"B" CORE SPRAY FLOW	0.0000E+00	GPM
BRYMELL SLURP LEVEL	15.00	Inch
STRICK GAS RAB.	75.00	UEI/sec
ROX DLB6 VENT RAB.	19.00	UEI/sec
REFUEL FLR EXH RAB.	2.000	UEI/sec
TO DLB6 VENT RAB.	2.000	UEI/sec
RAV DLB6 VENT RAB.	2.000	UEI/sec
SERVICE WATER RAB.	0.1300E-05	UEI/ml
STRICK HI RANGE RAB.	0.2819	CI/sec
TO DLB HI RANGE RAB.		CI/sec
RAV DLB HI RANGE RAB.		CI/sec
OFF GAS RAB.	0.0000E+00	mR/HR
BRYMELL RAB.	1.000	R/HR
HIGHEST MEL RAB MIN	2.276	mR/HR
BRYMELL PRESSURE	76.32.	PSIG
BRYMELL TEMPERATURE	1.900	Reg F
TURBUS WATER PLUG TWP	118.5	Reg F
TURBUS WATER LEVEL	88.91	FT
BRYMELL H2 CONC	13.89	Z
BRYMELL O2 CONC	0.3000	Z
CST LEVEL	1.000	Inch
	250.0	

2

Emergency Director Approval: _____ TIME: _____

MESSAGE SHEET

MESSAGE NO. 21

Exercise Time: 1130

Issued To: Control Room

Issued By: Lead Controller

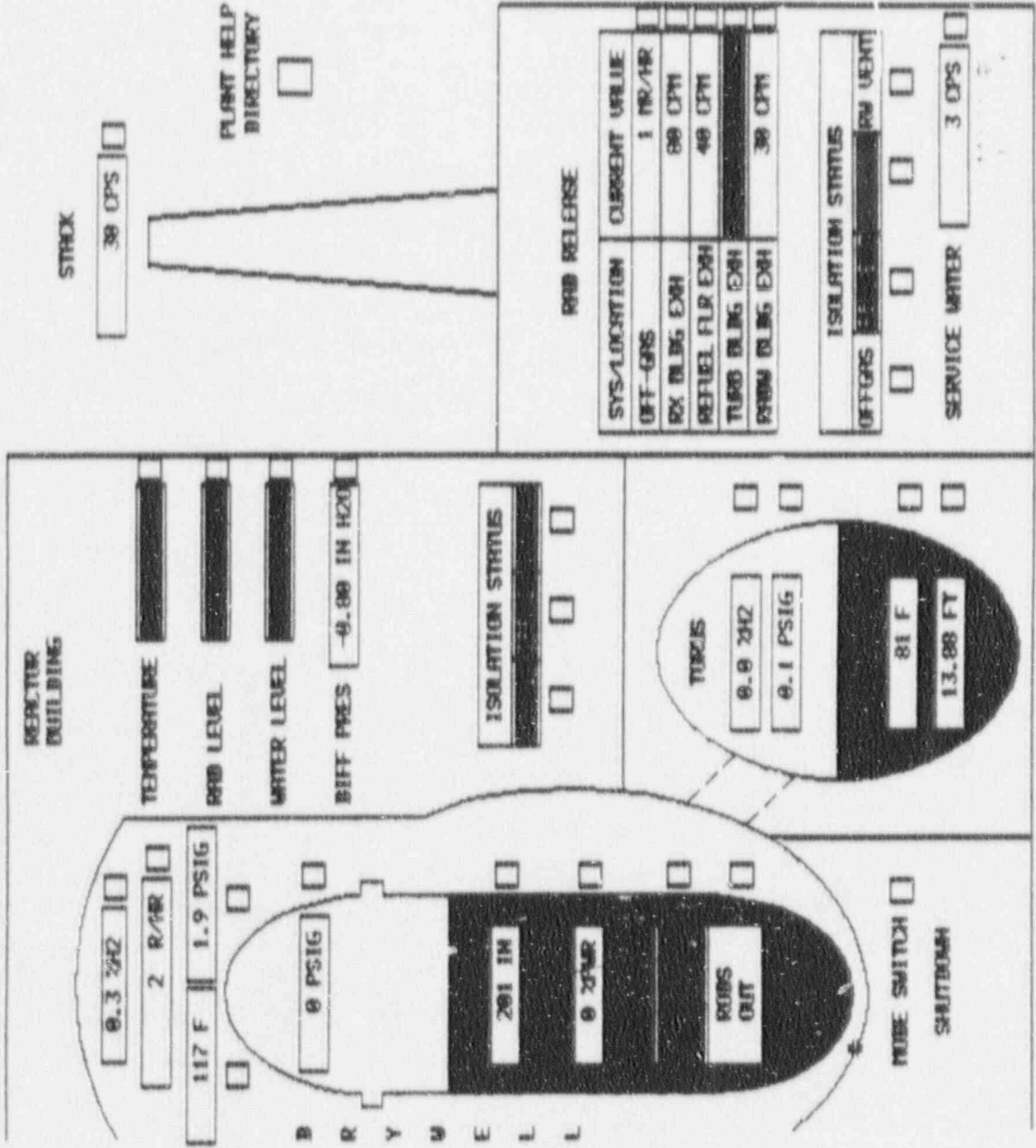
MESSAGE

Plant parameters as indicated on SPDS display.

09:31:58 1801-021-2Z NR/1R // 09:31:58 1801-021-67 NR/1R

PLANT

PLANT



09:31:58 180M-021-22 [REDACTED] NR/HR // 09:31:58 180M-021-07 [REDACTED] NR/HR

Form EFP-1.1.3
James A. Fitzpatrick Nuclear Power Plant
PART III - Plant Parameters

Sequence No. _____

APRM REACTOR POWER	0.0000E+00	%
IRM REACTOR POWER	0.0000E+00	%
SRM REACTOR POWER	0.0000E+00	CPS
RX WATER LEVEL	201.0	Inch TTF
FEEDWATER FLOW	0.3000	MLB/HR
RCIC FLOW	0.0000E+00	GPM
REACTOR PRESSURE	0.0000E+00	PSIG
HPCI FLOW	0.0000E+00	GPM
LPCI A FLOW	100.2	GPM
LPCI B FLOW	0.0000E+00	GPM
"A" CORE SPRAY FLOW	0.0000E+00	GPM
"B" CORE SPRAY FLOW	0.0000E+00	GPM
DRYWELL SUMP LEVEL	15.00	Inch
STACK GAS RAD.	75.00	UCI/sec
RX BLDG VENT RAD.	19.00	UCI/sec
RFUEL FLR EXH RAD.	2.000	UCI/sec
TB BLDG VENT RAD.	[REDACTED]	UCI/sec
RW BLDG VENT RAD.	2.000	UCI/sec
SERVICE WATER RAD.	0.1500E-05	UCI/ml
STACK HI RANGE RAD.	0.2819	CI/sec
TB BLD HI RANGE RAD.	[REDACTED]	CI/sec
RW BLD HI RANGE RAD.	0.0000E+00	CI/sec
OFFGAS RAD.	1.000	nR/hr
DRYWELL RAD.	1.854	R/hr
HIGHEST NSL RAD MON	0004.	nR/hr
DRYWELL PRESSURE	1.900	PSIG
DRYWELL TEMPERATURE	117.3	Deg F
TORUS WATER AVG TMP	81.27	Deg F
TORUS WATER LEVEL	13.00	FT
DRYWELL H2 CONC	0.3000	%
DRYWELL O2 CONC	1.000	%
CST LEVEL	250.0	Inch

Emergency Director Approval: _____ TIME: _____

FORM SAP 1.4
MESSAGE SHEET

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MESSAGE NO. 22

Exercise Time: 1145

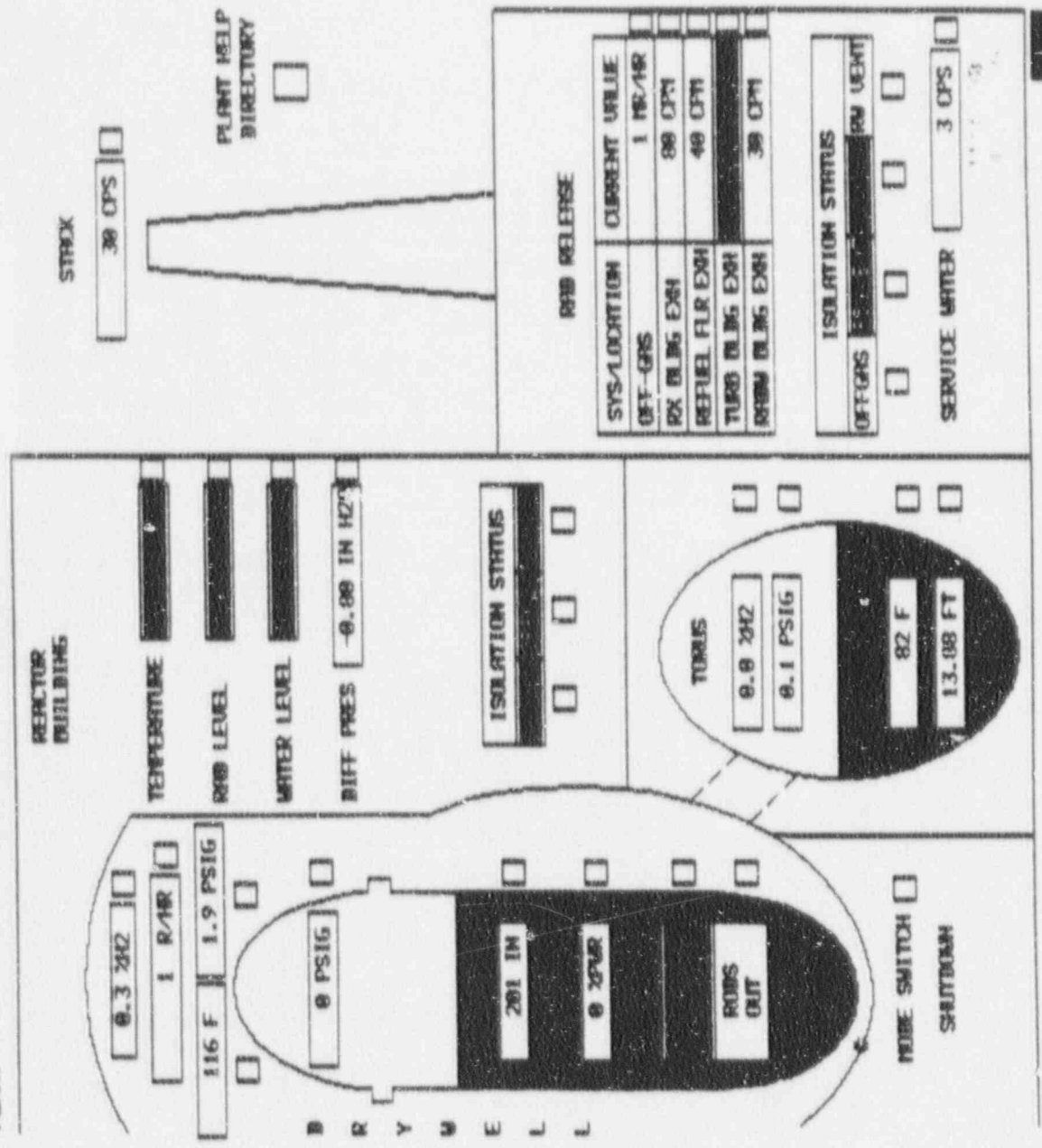
Issued To: Control Room

Issued By: Lead Controller

MESSAGE

Plant parameters as indicated on SPDS display.

PLANT



Form EHP-1.1.3
 James A. Fitzpatrick Nuclear Power Plant
 PART III - Plant Parameters

Sequence No. _____

APPH REACTOR PWR	0.0000E+00	z
JRN REACTOR PWR	0.0000E+00	z
SBN REACTOR PWR	0.0000E+00	CPS
RX WATER LEVEL	201.0	Inch TRF
FEEDWATER FLOW	0.3000	MLB/HR
REC FLOW	0.0000E+00	GPM
REACTOR PRESSURE	0.0000E+00	PSIG
HPCI FLOW	0.0000E+00	GPM
LPCI A FLOW	52.00	GPM
LPCI B FLOW	0.0000E+00	GPM
"A" CORE SPARY FLOW	0.0000E+00	GPM
"B" CORE SPARY FLOW	0.0000E+00	GPM
BRWELL SUMP LEVEL	15.00	Inch
STOX GAS RRD.	75.00	UCI/sec
RX DLBG VENT RRD.	19.00	UCI/sec
FUEL FLR EXH RRD.	2.000	UCI/sec
TB DLBG VENT RRD.	2.000	UCI/sec
AM DLBG VENT RRD.	2.000	UCI/sec
SERVICE WATER RRD.	0.1500E-05	UCI/ml
STOX HI RANGE RRD.	0.2819	CI/sec
TB DLB HI RANGE RRD.	0.0000E+00	CI/sec
AM DLB HI RANGE RRD.	1.000	mR/hr
OFFERS RRD.	1.430	R/hr
BRWELL RRD.	85.19.	mR/hr
HIGHEST PSI. RRD MIN	1.900	PSIG
BRWELL PRESSURE	116.2	Beg F
BRWELL TEMPERATURE	81.63	Beg F
TURBIS WATER AUG TRF	13.00	FT
TURBIS WATER LEVEL	0.3000	z
BRWELL H2 CONC	1.000	z
BRWELL O2 CONC	250.0	Inch
CST LEVEL		

4

Emergency Director Approval: _____ TIME: _____

FORM SAP 1.4
MESSAGE SHEET

Page 28 of 28

MESSAGE NO. 23

Exercise Time: 1200

Issued To: Control Room

Issued By: Lead Controller

MESSAGE

Plant is stable. Commence discussions on terminating the emergency and entering recovery.

SECTION 7

James A. FitzPatrick Nuclear Power Plant
1990 Partial Scale Emergency Exercise

December 19, 1990

DATA

- I. Plant Process Computer Data
- II. ARMs and In-Plant Maps
 - Chemistry Data
 - Offsite Radiological Data

SECTION 7

James A. FitzPatrick Nuclear Power Plant 1990 Partial Scale Emergency Exercise

December 19, 1990

Plant Process Computer (SPDS) Data

The following displays are examples of process computer logs and the SPDS displays that are available in the emergency facilities for personnel to obtain plant data information. These process computer logs are updated on a one minute basis and SPDS is a real-time display.

Process Computer Logs 4, 6 and 7 (ERDS/NYS Part III Data) and the SPDS Plant, RRC, SCR and TBRWRD displays are the only ones which will contain actual scenario data during the course of the training drill. This data is the same that can be found in Section 6 of this package on the Part III forms and SPDS displays.

---- Master Menu ----

- (1) Elog#1 - General Plant Status
- (2) Elog#2 - Containment Temp/Pressure
- (3) Elog#3 - Power & Steam Systems
- (4) Elog#4 - Area Rad Monitors
- (5) Elog#5 - Vessel/RCS Integrity
- (6) Elog#6 - Ventilation Rad Monitors
- (7) NYS Part-III Data Sheet
- (8) One-hour Trends
- (9) 15-Minute Met Data
- (q) Quit and Exit System.

Enter 1,2,3,4,5,6,7,8 or q:

Fitzpatrick Plant

Elog #1

Date at Time: 15:40

CORE THERMAL POWER	MWTH-	-22.581
GROSS GEN POWER	(MW)-	0.000
GROSS GEN POWER	% RATED-	0.000
TOTAL CORE FLOW	M#/HR-	27.913
TOTAL CORE FLOW	% RATED-	36.361
RX TEMP/RECIRC A DELTA T-		-0.078
CNDSR 33C-10A VAC	IN HG-	24.584
COND INLT/DISCH TUNNL DT-		4.557
REACTOR PRESSURE	PSIG-	143.171
RX WATER LEVEL	Inch TAF-	204.082
CLNUP SYS INLT TEMP	DEGF-	333.599
RX WTR OUT NONREGEN HX T-		81.535
RB CLG WTR HX OUT	DEGF-	73.678
DRYWELL PRESSURE	PSIG-	0.155
SUPR POOL PRESSURE	PSIG-	0.178
DRYWELL TO TORUS DELTA P-		-0.015
TORUS WATER LEVEL	FEET-	13.887
SUPR POOL AIR TEMP	DEG F-	84.926
DWLL OXYGEN(A) 0/30 %VOL-		21.997
STACK HI RANGE RAD	mR/Hr-	0.176

Press <RETURN> for Main Menu [TAB,?]:

Fitzpatrick Plant

Elog #2

Date at Time: 15:41

DRYWELL PRESSURE	PSIG-	0.154	DWLL AREA 0(RTD-101)DEGF-	93.91
SUPR POOL PRESSURE	PSIG-	0.176	DWLL AREA 0(RTD-120)DEGF-	89.86
DRYWELL TO TORUS DELTA P-		-0.016	DWLL AREA 1(RTD-119)DEGF-	89.06
DRYWELL TEMPERATURE	DEGF-	97.817	DWLL AREA 1(RTD-102)DEGF-	94.67
SUPR POOL AIR TEMP	DEG F-	84.964	DWLL AREA 2(RTD-103)DEGF-	97.97
TORUS WATER LEVEL	FT -	13.900	DWLL AREA 2(RTD-104)DEGF-	97.60
TORUS WATER AVG TMP	DEGF-	75.644	DWLL AREA 3(RTD-105)DEGF-	98.66
DRYWELL SUMP LEVEL	Inch-	15.000	DWLL AREA 3(RTD-106)DEGF-	108.37
DRYWELL RAD Monitor	R/Hr-	1.925	DWLL AREA 4(RTD-107)DEGF-	107.39
DRYWELL H2 CONC	% -	0.354	DWLL AREA 4(RTD-108)DEGF-	112.47
DRYWELL O2 CONC	% -	23.957	DWLL AREA 5(RTD-109)DEGF-	98.39
TORUS H2 CONC	% -	0.000	DWLL AREA 5(RTD-117)DEGF-	109.59
TORUS O2 CONC	% -	21.997	DWLL AREA 6(RTD-110)DEGF-	108.75
			DWLL AREA 6(RTD-111)DEGF-	108.37
			DWLL AREA 7(RTD-118)DEGF-	86.13
			DWLL AREA 8(RTD-113)DEGF-	84.11
			DWLL AREA 8(RTD-114)DEGF-	85.80
			DRYWELL WGTD AVG TEMP-	97.81

Press <RETURN> for Main Menu [TAB,?]:

Fitzpatrick Plant

Elog #3

Date at Time: 15:41

APRM A FLUX LEVEL	-	6.391	CRD DRIVE WATER FLO M#/H-	0.03
APRM B FLUX LEVEL	-	5.038	FDWTR LOOP A FLOW M#/HR-	0.48
APRM C FLUX LEVEL	-	5.618	FDWTR LOOP B FLOW M#/HR-	0.48
APRM D FLUX LEVEL	-	4.127	CLNUP SYS A FLOW M#/HR-	0.04
APRM E FLUX LEVEL	-	3.428	CLNUP SYS B FLOW M#/HR-	0.04
APRM F FLUX LEVEL	-	5.817	CLNUP SYS INLT TEMP DEGF-	333.96
RX TEMP/RECIRC A DELTA T-		-0.341	CLNUP SYS OUTL TEMP DEGF-	293.65
TBCLW CLR OUTLET	DEG F-	74.852	RELIEF VALVE RV-2-71A T-	169.15
CNDSR 33C-10A VAC	IN HG-	24.608	RELIEF VALVE RV-2-71B T-	150.04
TOTAL CORE FLOW	M#/HR-	27.882	RELIEF VALVE RV-2-71C T-	140.47
CORE DIFFERENTIAL PRESS -		1.951	RELIEF VALVE RV-2-71D T-	121.62
RECIRC PMP MTR A PWR	MW-	0.057	RELIEF VALVE RV-2-71E T-	181.01
RECIRC PMP MTR B PWR	MW-	0.067	RELIEF VALVE RV-2-71F T-	133.04
TOTAL STEAM FLOW	M#/HR-	0.534	RELIEF VALVE RV-2-71G T-	118.50
REACTOR PRESSURE	PSIG-	142.804	RELIEF VALVE RV-2-71H T-	127.70
MAIN STEAM PRESSURE	-	0.000	RELIEF VALVE RV-2-71J T-	128.12
MAIN STEAM PRESSURE	-	1200.000	RELIEF VALVE RV-2-71K T-	137.93
COND INLT/DISCH TUNNL DT-		4.557	RELIEF VALVE RV-2-71L T-	202.30
COND PPS DISCH HDR PRESS-		240.741	RECIRC A1 INLT TEMP DEGF-	362.49
COND BSTR FMP SUCTN PSIG-		193.079	RECIRC B1 INLT TEMP DEGF-	363.82

Press <RETURN> for Main Menu [TAB,?]:

Fitzpatrick Plant

Elog #4

Date at Time: 15:41

12	SPENT FUEL POOL	ER/HT	0.546	01	CHEMISTRY LAB	ER/HT	0.05
14	NEW FUEL VAULT	ER/HT	1.043	02	CLOTHING CHG AREA	ER/HT	0.03
30	SOUTH REFUEL FLR	ER/HT	128.848	03	CONTROL ROOM	R/HT	0.01
13	RXBLD 344'SOUTH	ER/HT	2.405	04	TB 300 HP-END	ER/HT	0.57
15	RXCU PRECOAT TNK	ER/HT	8.029	05	TB 300 LP-END	ER/HT	0.35
17	FUEL POOL PUMP	ER/HT	74.957	06	TB 252 HOGG PUMP	ER/HT	0.10
18	CONTAM EQPT STOR	ER/HT	2.519	07	RX FEEDPUMP AREA	ER/HT	0.45
16	RWCU HX ROOM	ER/HT	1.955	08	ROWST CONTROL RM	ER/HT	0.34
20	RX SAMPLE AREA	ER/HT	7.559	09	RW284 FILTR/VLV	ER/HT	6.60
19	RWCU PUMP AREA	ER/HT	1.720	10	RW272 DRUM STORE	ER/HT	1.75
21	RBCLC HX AREA	ER/HT	0.408	11	RW252 ROWST PUMP	ER/HT	12.25
23	RX BLDG EL 272'	ER/HT	1.097	22	COND DEMIN VALVE	ER/HT	0.61
24	TIP DRIVE PLATF	ER/HT	2.637				
25	EAST CRD HCV	ER/HT	0.897				
28	CRD REMOVL HATCH	ER/HT	4.981				
26	WEST CRD HCV	ER/HT	1.456				
27	EAST CRES EL227'	ER/HT	12.778				
29	WEST CRES EL227'	ER/HT	6.854				

Press <RETURN> for Main Menu [TAB,?]:

Fitzpatrick Plant

Elog #5

Date at Time: 15:41

ARRM REACTOR POWER	% -	-0.923
RX WATER LEVEL	Inch TAF-	204.132
REACTOR PRESSURE	PSIG-	143.144
RX TEMP VIA STEAM TABLES-		362.152
FEEDWATER FLOW	MLB/HR-	0.959
HPCI PUMP FLOW	GPM-	1.406
LPCI A FLOW	GPM-	-0.375
LPCI B FLOW	GPM-	-3.124
LOWER CORESPRAY FLOW	GPM-	0.000
UPPER CORESPRAY FLOW	GPM-	0.000
DRYWELL SUMP LEVEL	Inch-	15.000
SUPR POOL AIR TEMP	DEG F-	84.964
SUPR POOL PRESSURE	PSIG-	0.176
TORUS WATER LEVEL	FT -	13.900
TORUS WATER AVG TMP	DEG F-	75.644
DRYWELL TEMPERATURE	DEG F-	97.817
DRYWELL PRESSURE	PSIG-	0.154
PRIMARY CONT. H2 CONC	% -	0.354
PRIMARY CONT. O2 CONC	% -	23.957

Press <RETURN> for Main Menu [TAB,?]:

Fitzpatrick Plant

Elog #6

Date at Time: 15:41

STACK HI RANGE RAD	#R/Hr-	0.182	MAIN STEAM RAD A	#R/Hr-	7.3
T-BLDG HI RNGE RAD	#R/Hr-	0.244	MAIN STEAM RAD B	#R/Hr-	8.1
RDWST HI RANGE RAD	#R/Hr-	0.100	MAIN STEAM RAD C	#R/Hr-	7.8
DWLL HI RNGE RAD(A)	R/Hr-	1.523	MAIN STEAM RAD D	#R/Hr-	7.8
DWLL HI RNGE RAD(B)	R/Hr-	1.925	RADWASTE EFFLUENT	CPS-	131.4
A XHST BELOW RFL FLR	CFM-	41.017	SERV WTR DISCHARGE	CPS-	3.5
B XHST BELOW RFL FLR	CFM-	173.776	INTAKE WATER TEMP	Des F-	59.0
RFEUL FLR VENT A RAD	CFM-	68.122			
RFEUL FLR VENT B RAD	CFM-	39.570			
T-BLDG XHST A RAD	CFM-	32.347			
T-BLDG XHST B RAD	CFM-	34.198			
RDWST BLD XHST RAD A	CFM-	27.372			
RDWST BLD XHST RAD B	CFM-	31.221			
STACK MON A RAD	CPS-	5.601			
STACK MON B RAD	CPS-	33.564			
RX BLDG EXHAUST FLOW	CFM-	54153.406			
TB BLDG EXHAUST FLOW	CFM-	58993.875			
RW BLDG EXHAUST FLOW	CFM-	30132.855			
SBGT FLOW	CFM-	6198.150			

Press <RETURN> for Main Menu [TAB,?]:

Fitzpatrick Plant

NYS Part III

Date at Time: 15:41

APRM REACTOR POWER	% -	-0.923	TB BLDG VENT RAD.	UCI/mi-	3.420
IRM REACTOR POWER	% -	17.763	RW BLDG VENT RAD.	UCI/mi-	1.405
SRM REACTOR POWER	CPS-	823.658	STACK HI RANGE RAD.	CI/s-	0.461
RX WATER LEVEL	Inch TAF-	204.132	TB BLD HIRANGE RAD.	CI/s-	5.510
FEEDWATER FLOW	MLB/HR-	0.959	RW BLD HIRANGE RAD.	CI/s-	0.685
RCIC FLOW	GPM-	0.000	SERVICEWATER RAD.	UCI/mi-	0.000
REACTOR PRESSURE	PSIG-	143.144	OFFGAS RAD.	#R/Hr-	4.030
HPCI PUMP FLOW	GPM-	1.406	DRYWELL RAD Monitor	R/Hr-	1.925
LPCI A FLOW	GPM-	-0.375	HIGEST MSL RAD MON	#R/Hr-	8.165
LPCI B FLOW	GPM-	-3.124	DRYWELL PRESSURE	PSIG-	0.154
UPPER CORESPRAY FLOW	GPM-	0.000	DRYWELL TEMPERATURE	DesF-	97.817
LOWER CORESPRAY FLOW	GPM-	0.000	TORUS WATER AVG TMP	DesF-	75.644
DRYWELL SUMP LEVEL	Inch-	15.000	TORUS WATER LEVEL	FT -	13.900
STACK GAS RAD.	UCI/mi-	83.911	DRYWELL H2 CONC	% -	0.354
RX BLDG VENT RAD.	UCI/mi-	17.378	DRYWELL O2 CONC	% -	23.957
RFEULFLR EXH RAD.	UCI/mi-	1.703	CS TANK LEVEL	Inch-	310.344

Press <RETURN> to Continue... P to Print

James A. FitzPatrick Nuclear Plant
 Part III - Plant Parameters
 Form EAP-1.1.3

Description	Units	Value
APRM REACTOR POWER	% -	-0.923
IRM REACTOR POWER	% -	17.763
SRM REACTOR POWER	CPS-	823.658
RX WATER LEVEL	Inch TAF-	204.132
FEEDWATER FLOW	MLB/HR-	0.959
RCIC FLOW	GPM-	0.000
REACTOR PRESSURE	PSIG-	143.144
HPCI PUMP FLOW	GPM-	1.406
LPCI A FLOW	GPM-	-0.375
LPCI B FLOW	GPM-	-3.124
UPPER CORESPRAY FLOW	GPM-	0.000
LOWER CORESPRAY FLOW	GPM-	0.000
DRYWELL SUMP LEVEL	Inch-	15.000
STACK GAS RAD.	uCi/mi-	83.911
RX BLDG VENT RAD.	uCi/mi-	17.378
RFUELFLR EXH RAD.	uCi/mi-	1.703
TB BLDG VENT RAD.	uCi/mi-	3.420
RW BLDG VENT RAD.	uCi/mi-	1.405
STACK HI RANGE RAD.	CI/s-	0.461
TB BLD HIRANGE RAD.	CI/s-	5.513
RW BLD HIRANGE RAD.	CI/s-	0.685
SERVICEWATER RAD.	uCi/mi-	0.000
OFFGAS RAD.	mR/Hr-	4.031
DRYWELL RAD Monitor	R/Hr-	1.925
HIGEST MSL RAD MON	mR/Hr-	8.165
DRYWELL PRESSURE	PSIG-	0.154
DRYWELL TEMPERATURE	DesF-	97.817
TORUS WATER AVG TMP	DesF-	75.644
TORUS WATER LEVEL	FT -	13.900
DRYWELL H2 CONC	% -	0.354
DRYWELL O2 CONC	% -	23.957
CS TANK LEVEL	Inch-	310.344

Emergency Director Approval: _____
 TIME: 15:41

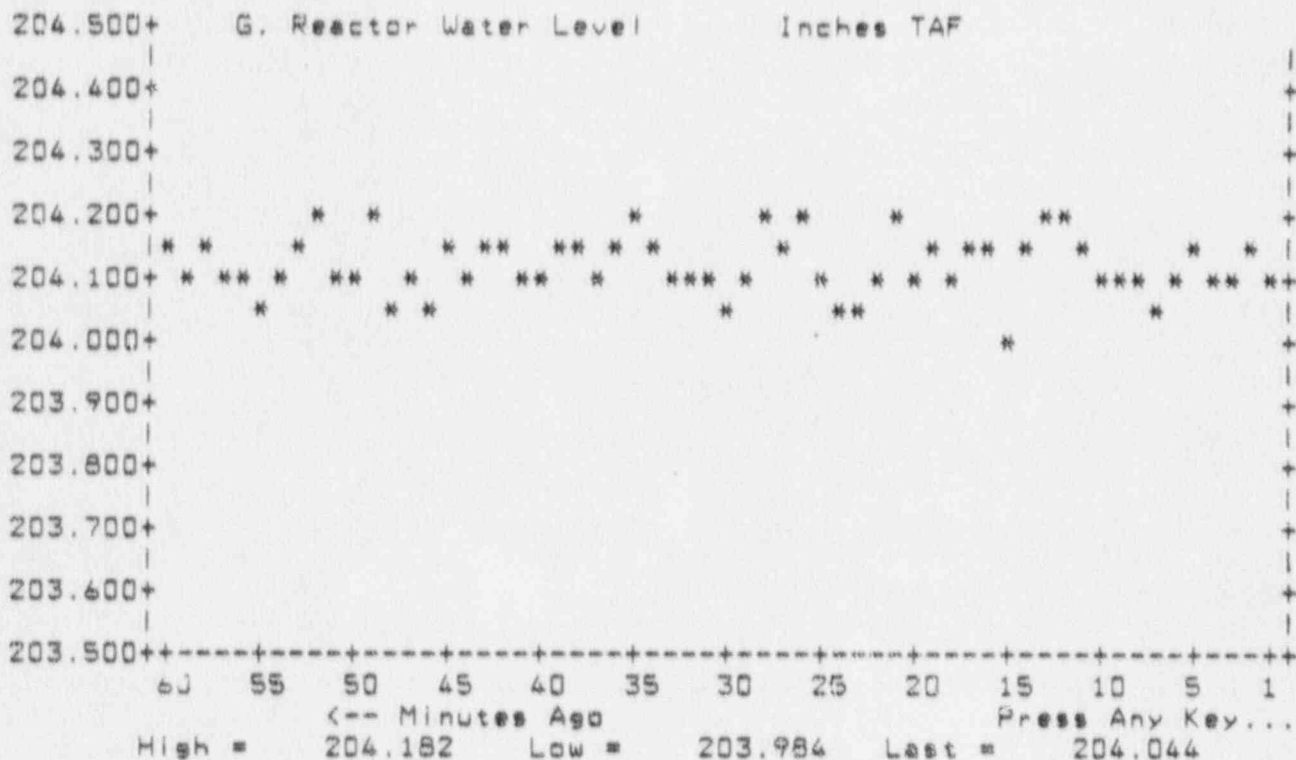
Trending - One (1) Hour History

- ```

=====
A. Core Thermal Power MW Thermal
B. Gross Gen. Power % Rated
C. Gross Gen. Power MWatt
D. Cond Inlet/Dsch Tunnel DT Deg F
E. Cinup Sys Inlet Temp. Deg F
F. Reactor Pressure PSIG
G. Reactor Water Level Inches TAF
H. Condr 33C-10A Vacuum Inches Hg
I. RBCLC Water HX Outlet Deg F.
J. TBCLW Cln Outlet Temp. Deg F.
K. Drywell Pressure PSIG
L. Torus Pressure PSIG
M. Torus Wtr Lvl Feet
N. Torus Wtr Temp Deg F.
O. Drywell Oxygen (O/30%) % Volume
P. Main Steam Pressure PSIG
Q. Vessel Bottom Drain T. Deg F.
R. Stack Hi Range Rad. mR/Hr
S. T-Bldg Hi Range Rad. mR/Hr
T. Rdust Hi Range Rad. mR/Hr.
=====

```

Enter Choice [A-T], or Q to Quit:





```

*** 15-Minute Average Met Data ****
 Date: 6/21/90 Time: 13:45
***** Main Tower *****
30 ft wind speed (mph) = 1.7
30 ft wind direction (deg) = 348.
30 ft sigma-theta (deg) = 27.3
30 ft temperature (deg f) = 65.4
100 ft wind speed (mph) = 0.0
100 ft wind direction (deg) = 0.
100 ft delta t (deg f) = 0.0
200 ft wind speed (mph) = 4.0
200 ft wind direction (deg) = 315.
200 ft sigma-theta (deg) = 5.7
200 ft delta t (deg f) = 2.2
***** Backup Tower *****
96 ft wind speed (mph) = 5.0
96 ft wind direction (deg) = 328.
***** Inland Tower *****
30 ft wind speed (mph) = 0.0
30 ft wind direction (deg) = 0.
30 ft sigma-theta (deg) = 0.0

```

Press RETURN for Main Menu:

SECTION 7

James A. FitzPatrick Nuclear Power Plant  
1990 Partial Scale Emergency Exercise

December 19, 1990

ARMs and In-Plant Maps

Timeline of exercise ARM readings are attached. These values are for controllers use only.

Also attached are in-plant maps which may be used for reference when repair teams are dispatched into the plant. These in-plant maps are to be used when providing all in-plant radiological data. The controllers shall provide all non-radiological data (i.e. status of repairs, valve indications, pressure readings, etc.) to drill participants in accordance with Section 6 of this scenario package and the damage repair reports.

Any area that is entered which does not appear on these in-plant maps shall have radiological conditions which are normal to that area under operating conditions.

Any area that is entered at a time which does not appear on these in-plant maps shall also have radiological conditions which are normal to that area under operating conditions.

## SECTION 7

## AREA RADIATION MONITORS DATA SHEET

(All readings are mR/hr)

| ARM # | ARM Location       | 0700 to 0815 | 0815 to 0900 | 0900 to 1100 | 1100 to 1130 | 1130 to 1200 |
|-------|--------------------|--------------|--------------|--------------|--------------|--------------|
| 1     | AB 272' Chem Lab   | Normal       | Normal       | Normal       | Normal       | Normal       |
| 2     | AB Change Area     | Normal       | Normal       | Normal       | Normal       | Normal       |
| 3     | AB CR              | Normal       | Normal       | Normal       | Normal       | Normal       |
| 4     | TB 300' HP End     | Normal       | 145          | Upscale Hi   | 195          | 150          |
| 5     | TB 300' LP End     | Normal       | 118          | Upscale Hi   | 138          | 110          |
| 6     | TB 252' Hogging    | Normal       | 85           | Upscale Hi   | 105          | 100          |
| 7     | TB 252' Feed Pump  | Normal       | 150          | Upscale Hi   | 150          | 120          |
| 8     | RW CR 284'         | Normal       | Normal       | Normal       | Normal       | Normal       |
| 9     | RW Filter/Vlv 279' | Normal       | Normal       | Normal       | Normal       | Normal       |
| 10    | RW Drum Area 272'  | Normal       | Normal       | Normal       | Normal       | Normal       |
| 11    | RW Pmp Rm 252'     | Normal       | Normal       | Normal       | Normal       | Normal       |
| 12    | RxB 369' Fuel Pool | Normal       | Normal       | Normal       | Normal       | Normal       |
| 13    | RxB 344' S. End    | Normal       | Normal       | Normal       | Normal       | Normal       |
| 14    | 369' Fuel Vault    | Normal       | Normal       | Normal       | Normal       | Normal       |
| 15    | 326' Cleanup Tank  | Normal       | Normal       | Normal       | Normal       | Normal       |
| 16    | 300' Clnup Hx      | Normal       | Normal       | Normal       | Normal       | Normal       |
| 17    | 326' Pool Pmps     | Normal       | Normal       | Normal       | Normal       | Normal       |
| 18    | 326' Decon Storage | Normal       | Normal       | Normal       | Normal       | Normal       |
| 19    | 300' Rx Clnup Pmp  | Normal       | Normal       | Normal       | Normal       | Normal       |
| 20    | 300' Rx Sample Sta | Normal       | Normal       | Normal       | Normal       | Normal       |
| 21    | 300' CLCW Hx       | Normal       | Normal       | Normal       | Normal       | Normal       |
| 22    | TB 252' Demin Vlv  | Normal       | 160          | Upscale Hi   | 180          | 150          |
| 23    | RB 272' Access     | Normal       | Normal       | Normal       | Normal       | Normal       |
| 24    | RB 284' TIP        | Normal       | Normal       | Normal       | Normal       | Normal       |
| 25    | 272' East CRD      | Normal       | Normal       | Normal       | Normal       | Normal       |
| 26    | 272' West CRD      | Normal       | Normal       | Normal       | Normal       | Normal       |
| 27    | 227' Equip Sump    | Normal       | Normal       | Normal       | Normal       | Normal       |
| 28    | 272' CRD Hatch     | Normal       | Normal       | Normal       | Normal       | Normal       |
| 29    | 227' West Sump     | Normal       | Normal       | Normal       | Normal       | Normal       |
| 30    | 369' S. Fuel Fl    | Normal       | Normal       | Normal       | Normal       | Normal       |

## SECTION 7

INPLANT  
AIR SAMPLE DATA(Field Readings in R/hr)  
(Concentrations in  $\mu\text{Ci/cc}$ )

| NUCLIDE    | 0-1     | 1.1-10.0 | 10.1-20.0 | 20.1-50.0 | 50.1-100 | (R/hr)                |
|------------|---------|----------|-----------|-----------|----------|-----------------------|
| Kr-85      | 8.4E-06 | 8.4E-05  | 2.5E-04   | 4.0E-04   | 1.2E-03  |                       |
| Kr-85m     | 8.4E-05 | 8.4E-04  | 2.5E-03   | 4.0E-03   | 1.2E-02  |                       |
| Kr-87      | 1.5E-04 | 1.5E-03  | 4.3E-03   | 7.0E-03   | 2.1E-02  |                       |
| Kr-88      | 2.1E-04 | 2.1E-03  | 6.2E-03   | 1.0E-02   | 3.0E-02  |                       |
| Xe-131m    | 2.5E-04 | 2.5E-03  | 7.4E-03   | 1.2E-02   | 3.6E-02  |                       |
| Xe-133     | 7.8E-04 | 7.8E-03  | 2.3E-02   | 3.7E-02   | 1.1E-01  |                       |
| Xe-133m    | 1.1E-04 | 1.0E-03  | 3.7E-03   | 5.0E-03   | 1.5E-02  |                       |
| Xe-135     | 8.4E-05 | 8.4E-04  | 2.5E-03   | 4.0E-03   | 1.2E-02  |                       |
| Xe-135m    | 1.3E-04 | 1.3E-03  | 3.7E-03   | 6.0E-03   | 1.8E-02  |                       |
| I-131      | 8.4E-08 | 8.4E-07  | 2.5E-06   | 4.0E-06   | 1.2E-05  |                       |
| I-133      | 1.2E-07 | 1.2E-06  | 3.5E-06   | 5.7E-06   | 1.7E-05  |                       |
| I-135      | 7.1E-08 | 7.1E-07  | 2.1E-06   | 3.4E-06   | 1.0E-05  |                       |
| TOT. CONC. | 1.8E-03 | 1.8E-02  | 5.29E-02  | 8.54E-02  | 2.55E-01 | ( $\mu\text{Ci/cc}$ ) |

NOTE: Information on this sheet is for controller use only. This page will not be handed to drill players.

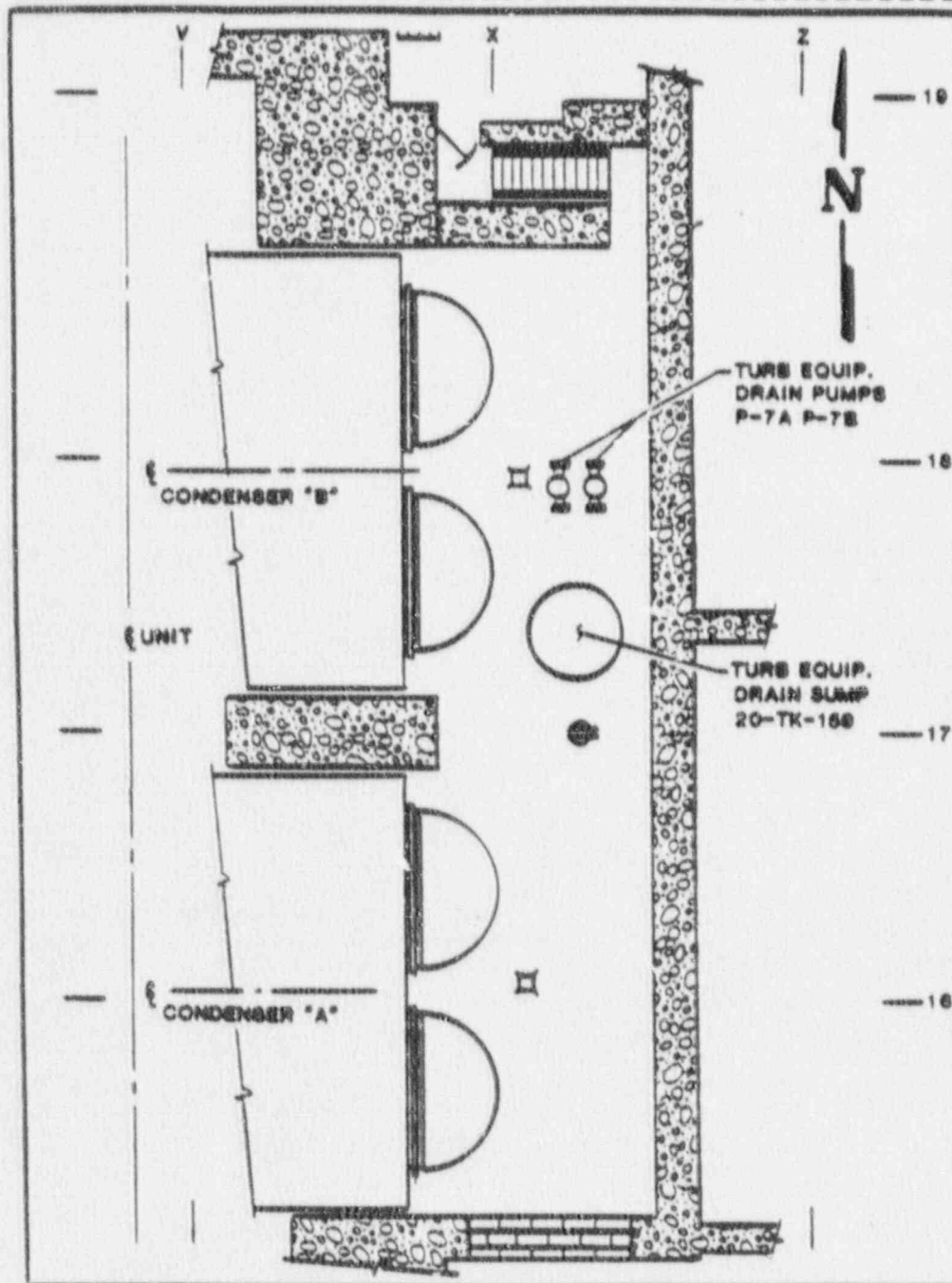


**RES SURVEY LOG SHEET**  
FORM NO SSL-1

RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

SURVEY NO. \_\_\_\_\_  
DATE \_\_\_\_\_  
TIME \_\_\_\_\_

BUILDING / ELEVATION TB 244-1  
SYSTEM & COMPONENT ID / ELEVATION \_\_\_\_\_  
DESCRIPTION / COMMENT \_\_\_\_\_



| RADIATION/T.M |                |
|---------------|----------------|
| 1             | Normal 0200    |
| 2             | Normal 0815    |
| 3             | 120 mR/hr 0910 |
| 4             | 1600 " 1000    |
| 5             | 150 " 1130     |
| 6             | 120 " 1200     |
| 7             |                |
| 8             |                |
| 9             |                |
| 10            |                |
| 11            |                |
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| 23            |                |
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| 25            |                |

| CONTAMINATION |  |
|---------------|--|
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| 25            |  |

AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_  
AIR SAMPLE RESULTS: \_\_\_\_\_ ( & EFFECTIVE MPC ) \_\_\_\_\_  
SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_ (SIGNATURE)  
\_\_\_\_\_  
(SIGNATURE)(S) \_\_\_\_\_ (SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KEY)

REV 0

**HES SURVEY LOG SHEET**  
FORM NO SSL-1

RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

SURVEY NO. \_\_\_\_\_

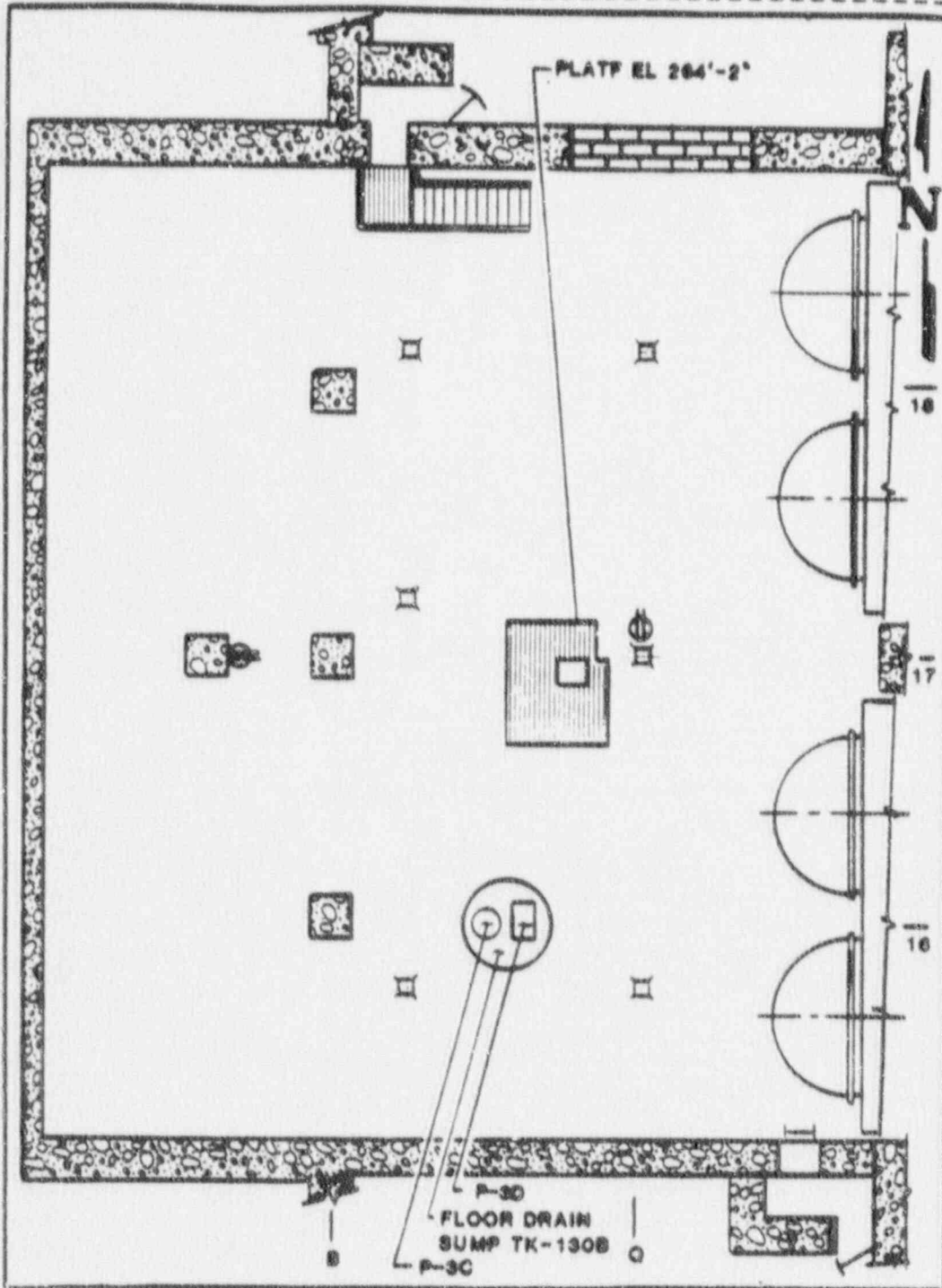
BUILDING / ELEVATION TB 244-2

DATE \_\_\_\_\_

SYSTEM & COMPONENT ID / ELEVATION \_\_\_\_\_

DESCRIPTION / COMMENT \_\_\_\_\_

TIME \_\_\_\_\_



| RADIATION/HR  |                |
|---------------|----------------|
| 1             | Normal 0700    |
| 2             | 120 mR/hr 09:0 |
| 3             | 1600 " 1000    |
| 4             | 150 " 1130     |
| 5             | 120 " 1200     |
| 6             |                |
| 7             |                |
| 8             |                |
| 9             |                |
| 10            |                |
| 11            |                |
| 12            |                |
| 13            |                |
| 14            |                |
| 15            |                |
| 16            |                |
| CONTAMINATION |                |
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| 26            |                |

AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_  
AIR SAMPLE RESULTS: \_\_\_\_\_ ( % EFFECTIVE MPC )  
SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_ (SIGNATURE)  
\_\_\_\_\_  
(SIGNATURE)(S) \_\_\_\_\_ (mR)

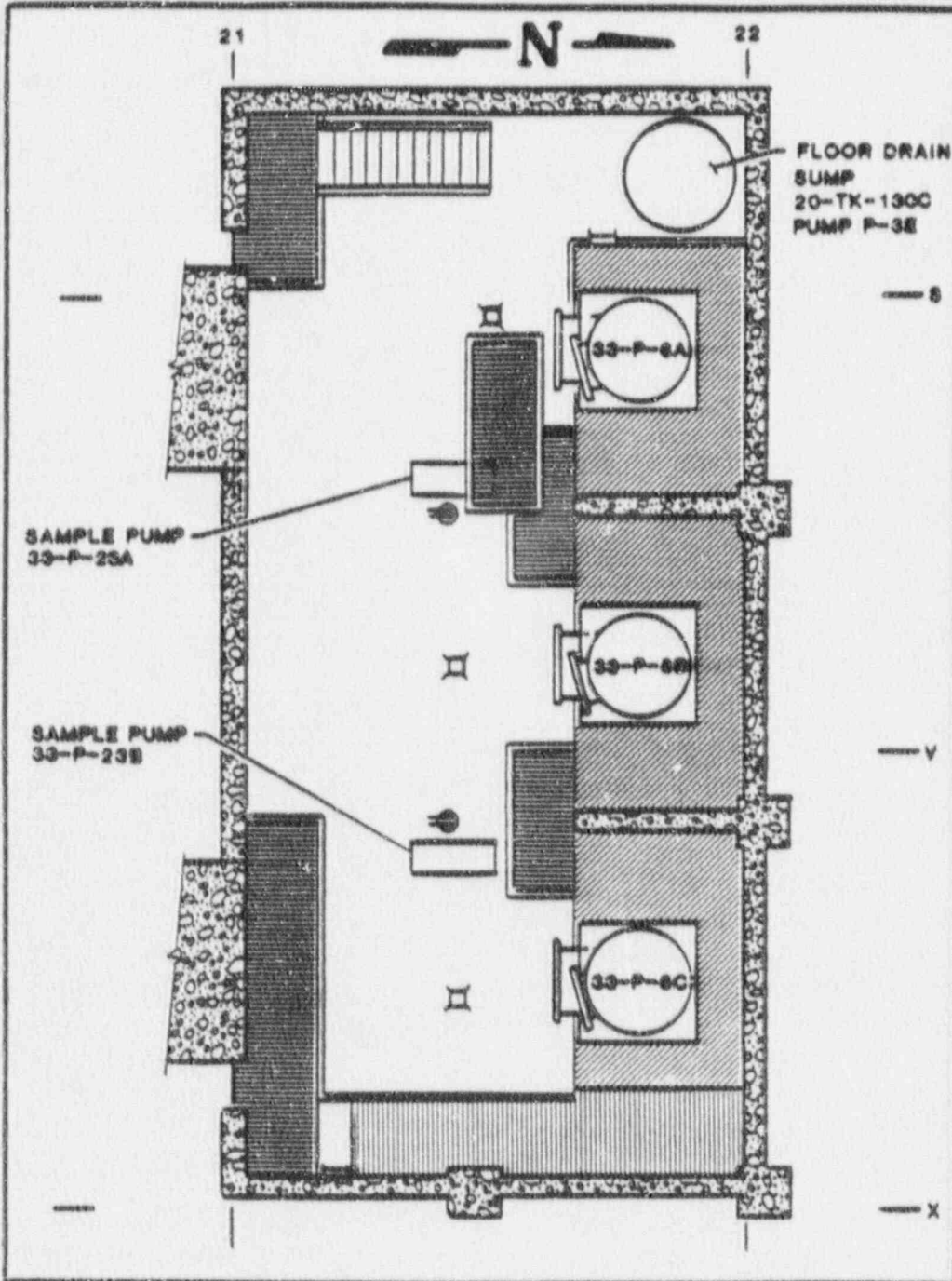


**RES SURVEY LOG SHEET**  
FORM NO SSL-1

RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

|            |       |
|------------|-------|
| SURVEY NO. | _____ |
| DATE       | _____ |
| TIME       | _____ |

BUILDING / ELEVATION TB 244-3  
SYSTEM & COMPONENT ID / ELEVATION \_\_\_\_\_  
DESCRIPTION / COMMENT \_\_\_\_\_



| RADIATION/TI |               |
|--------------|---------------|
| 1            | NORMAL 07     |
| 2            | 120 MP/HR 081 |
| 3            | 1600 " 106    |
| 4            | 150 " 113     |
| 5            | 120 " 120     |
| 6            |               |
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| CONTAMINATION |  |
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AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S \_\_\_\_\_  
AIR SAMPLE RESULTS: \_\_\_\_\_ ( % EFFECTIVE MPC )  
SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_ (SIGNATURE)  
\_\_\_\_\_  
(SIGNATURE)(S) \_\_\_\_\_ (mR)

# RES SURVEY LOG SHEET

FORM NO SSL-1

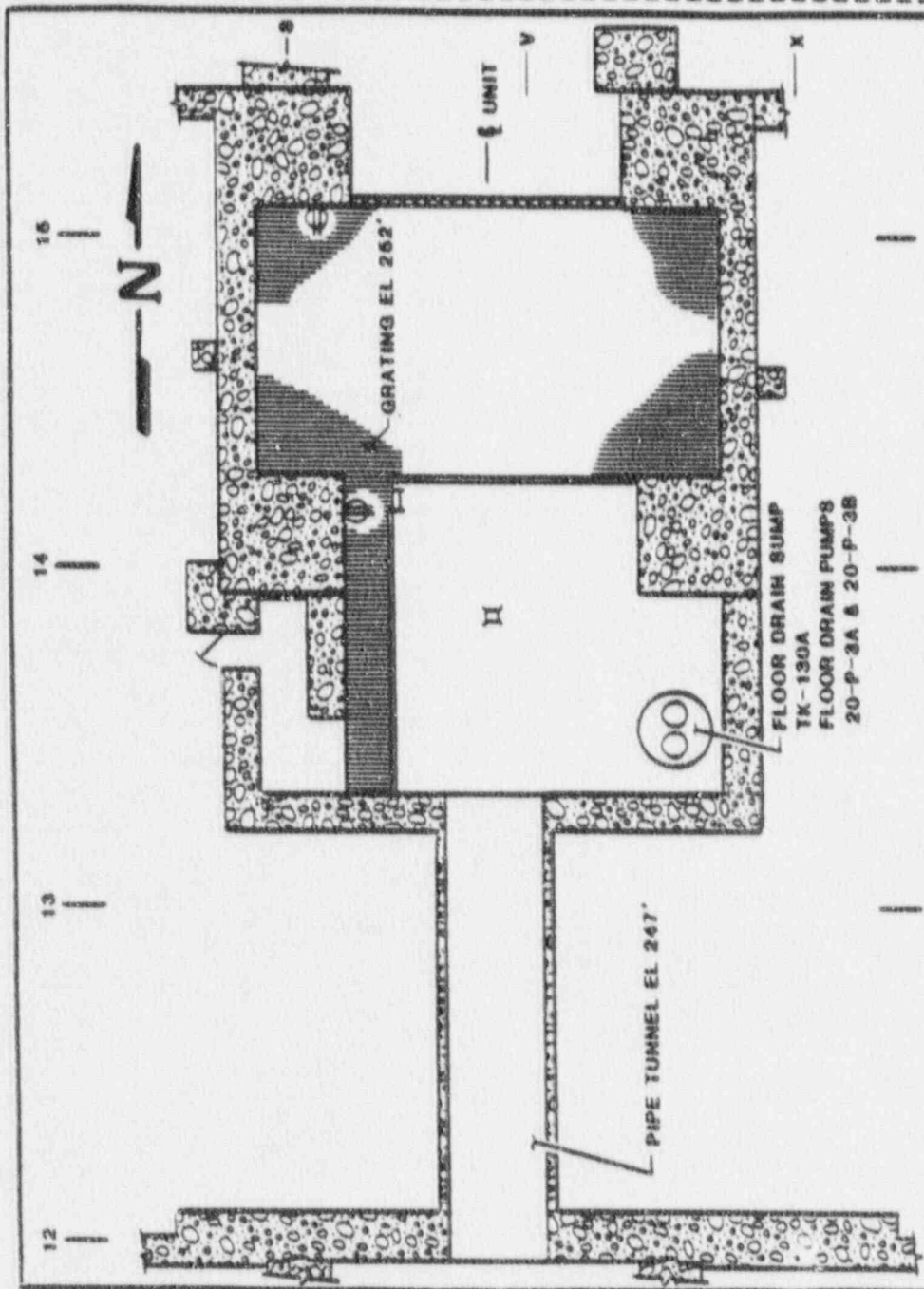
RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

|            |       |
|------------|-------|
| SURVEY NO. | _____ |
| DATE       | _____ |
| TIME       | _____ |

BUILDING / ELEVATION TB 252-1

SYSTEM & COMPONENT ID / ELEVATION \_\_\_\_\_

DESCRIPTION / COMMENT \_\_\_\_\_



| RADIATION / hr |                |
|----------------|----------------|
| 1              | Normal 0700    |
| 2              | 120 mR/hr 0910 |
| 3              | 1600 " 1000    |
| 4              | 150 " 1130     |
| 5              | 120 " 1200     |
| 6              |                |
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AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_

AIR SAMPLE RESULTS: \_\_\_\_\_ ( % EFFECTIVE MPC ) \_\_\_\_\_

SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_ (SIGNATURE)

\_\_\_\_\_ (SIGNATURE)(S) \_\_\_\_\_ (mR)

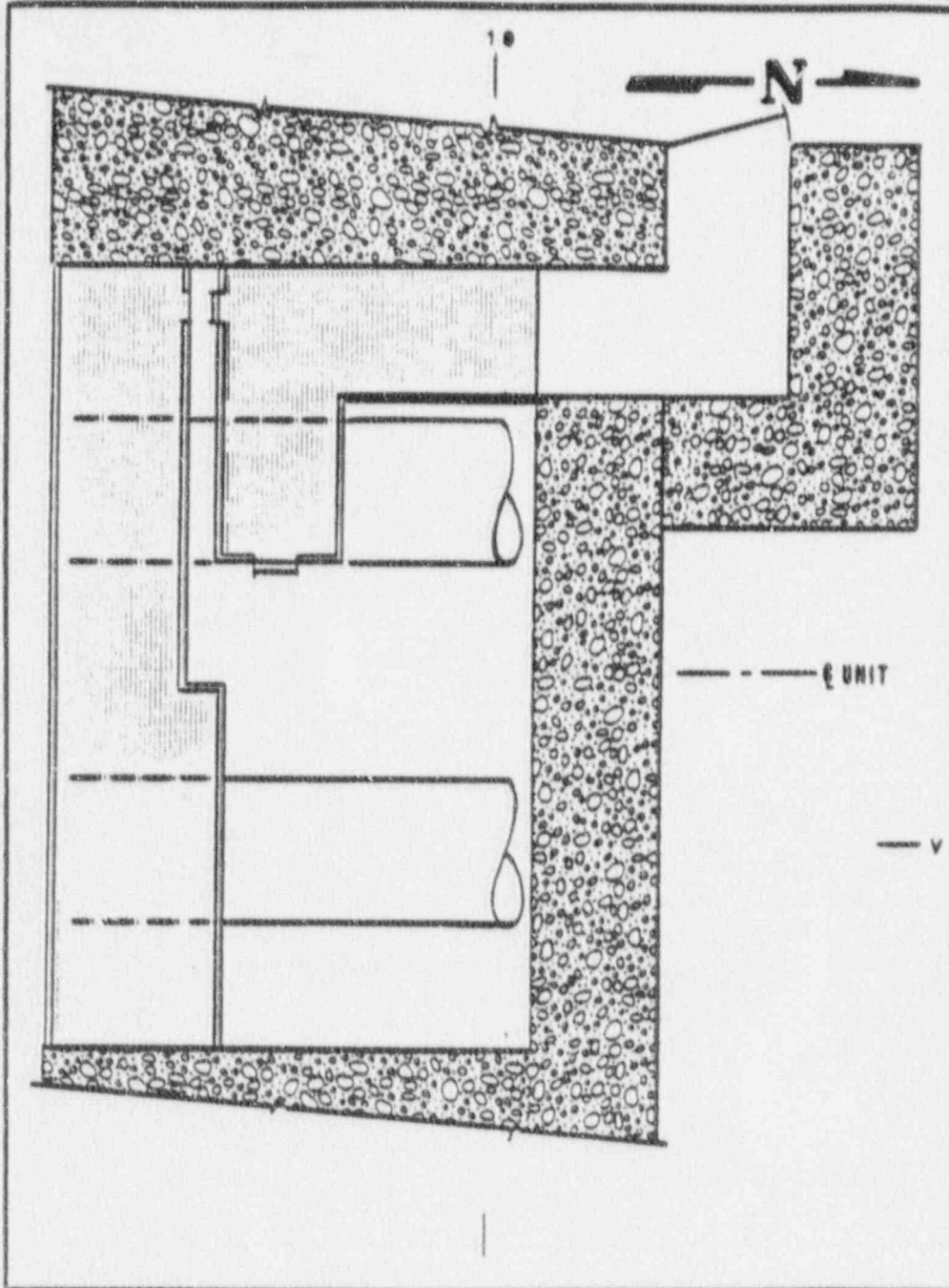
REV 0 (SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY (BY)

**RES SURVEY LOG SHEET**  
FORM NO SSL-1

RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

SURVEY NO. \_\_\_\_\_  
DATE \_\_\_\_\_  
TIME \_\_\_\_\_

BUILDING / ELEVATION TB 252-2  
SYSTEM & COMPONENT I D / ELEVATION \_\_\_\_\_  
DESCRIPTION / COMMENT \_\_\_\_\_



| RADIATION/ft |           |      |
|--------------|-----------|------|
| 1            | NORMAL    | 0.72 |
| 2            | 120 MR/hk | 0.91 |
| 3            | 1600 "    | 1.24 |
| 4            | 150 "     | 1.13 |
| 5            | 120 "     | 1.20 |
| 6            |           |      |
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| CONTAMINATION |  |
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AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_  
AIR SAMPLE RESULTS: \_\_\_\_\_  
( % EFFECTIVE MPC )  
SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_ (SIGNATURE)  
\_\_\_\_\_  
(SIGNATURE)(S) \_\_\_\_\_ (SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KEY)

REV 0



# RES SURVEY LOG SHEET

FORM NO SSL-1

RWP NO. \_\_\_\_\_

RPOP-5 \_\_\_\_\_

\_\_\_\_\_

SURVEY NO. \_\_\_\_\_

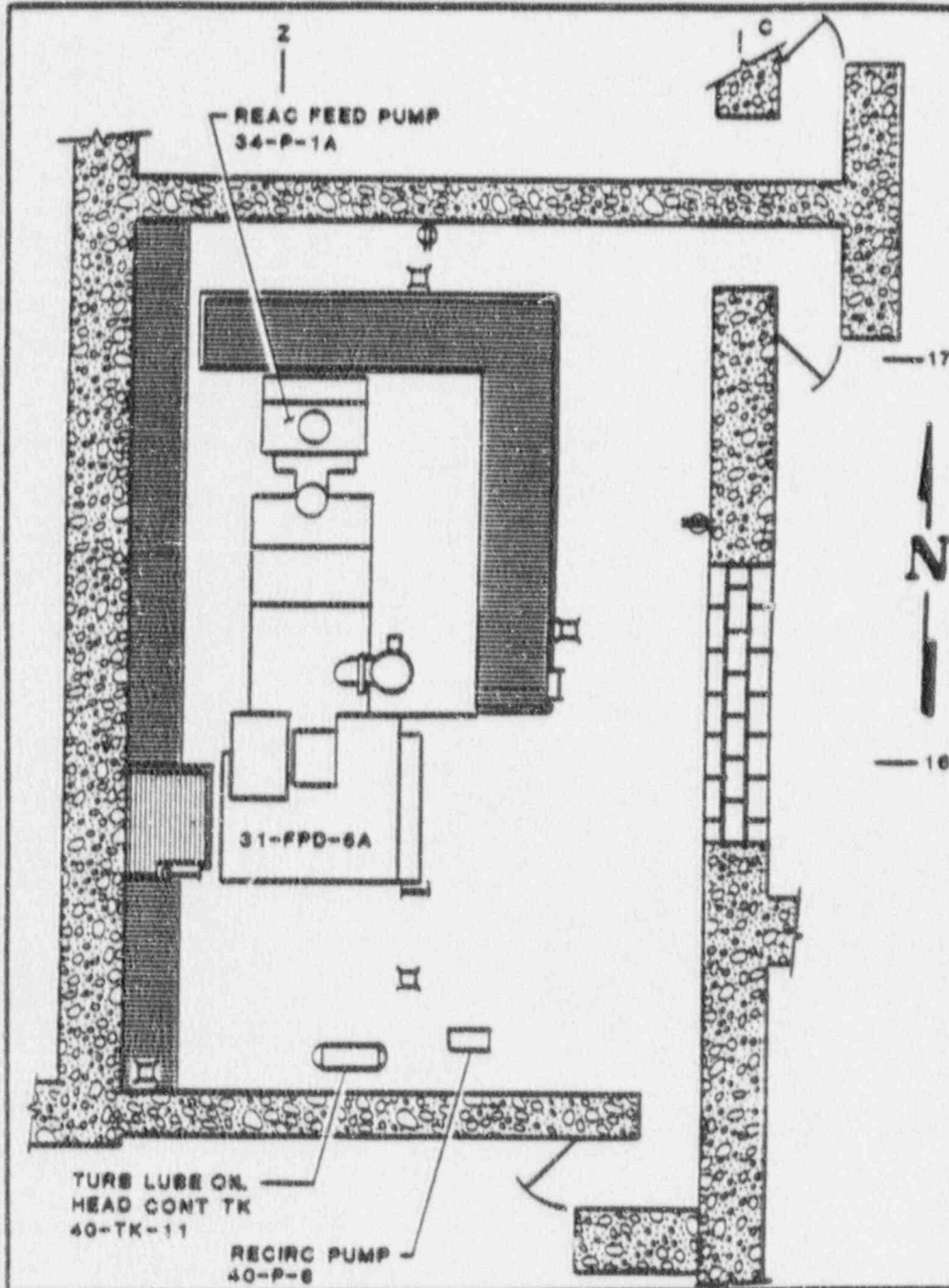
DATE \_\_\_\_\_

TIME \_\_\_\_\_

BUILDING / ELEVATION TB 252-3

SYSTEM & COMPONENT I D / ELEVATION \_\_\_\_\_

DESCRIPTION / COMMENT \_\_\_\_\_



| RADIATION/T |            |     |
|-------------|------------|-----|
| 1           | NORMA/     | 021 |
| 2           | 120 MR/HR  | 09  |
| 3           | 1600 MR/HR | 100 |
| 4           | 150 "      | 113 |
| 5           | 120 "      | 126 |
| 6           |            |     |
| 7           |            |     |
| 8           |            |     |
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| CONTAMINATION |  |
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AIRBORNE SURVEY

AIR SAMPLER SERIAL NO'S. \_\_\_\_\_

AIR SAMPLE RESULTS: \_\_\_\_\_ ( % EFFECTIVE MPC )

SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_ (SIGNATURE)

REV 0

(SIGNATURE)(S)

(SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KE)

# RES SURVEY LOG SHEET

FORM NO SSL-1

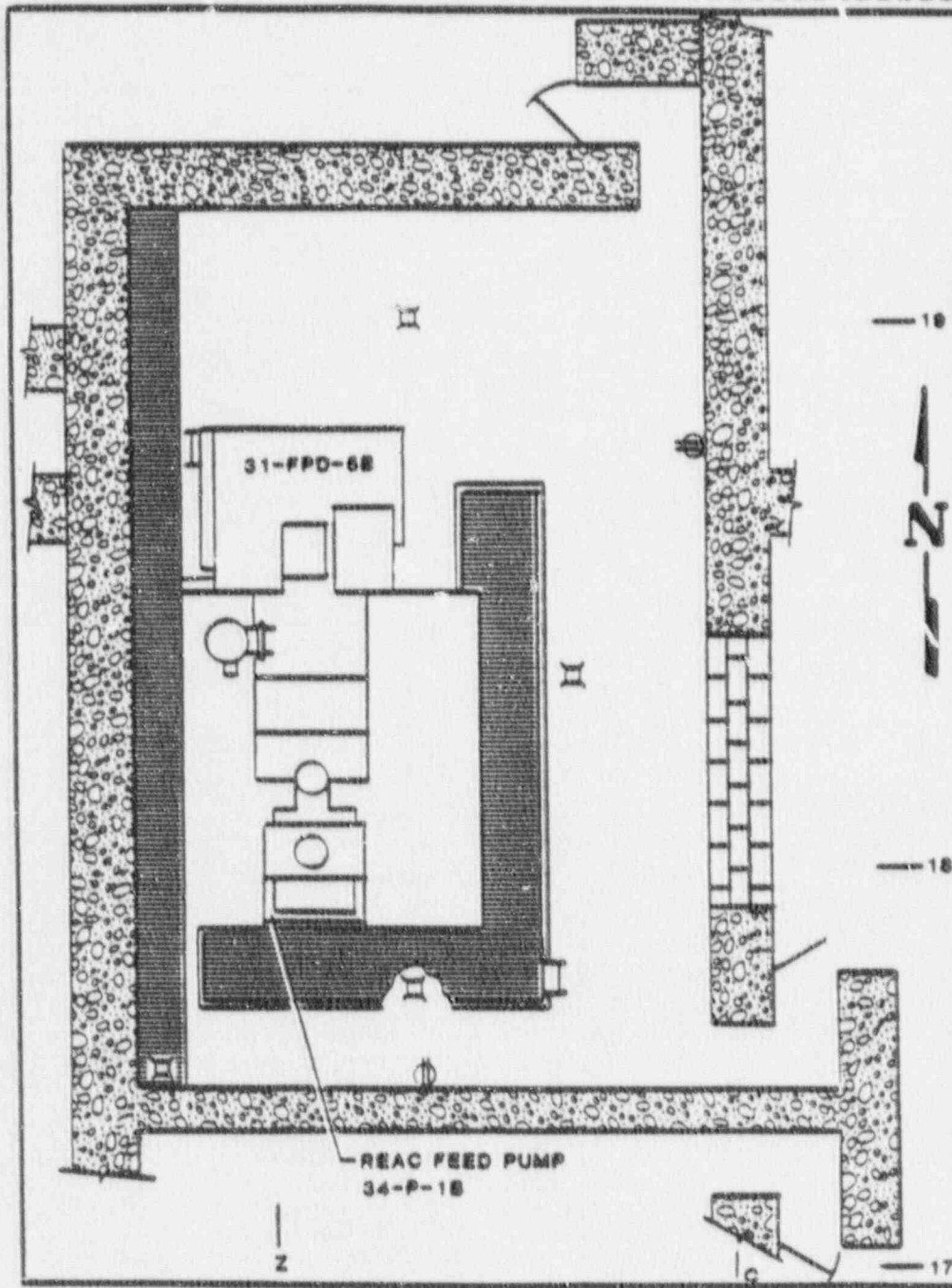
RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

SURVEY NO. \_\_\_\_\_  
 DATE \_\_\_\_\_  
 TIME \_\_\_\_\_

BUILDING / ELEVATION TB 252-4

SYSTEM & COMPONENT ID / ELEVATION \_\_\_\_\_

DESCRIPTION / COMMENT \_\_\_\_\_



| RADIATION $\mu R/h$ |                 |
|---------------------|-----------------|
| 1                   | Neutron 0.20    |
| 2                   | 120 MR/HR 0.916 |
| 3                   | 1600 " 10.01    |
| 4                   | 150 " 1.130     |
| 5                   | 120 " 1.201     |
| 6                   |                 |
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AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_  
 AIR SAMPLE RESULTS: \_\_\_\_\_  
 (% EFFECTIVE MPC)

SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_ (SIGNATURE)  
 \_\_\_\_\_ (mR)

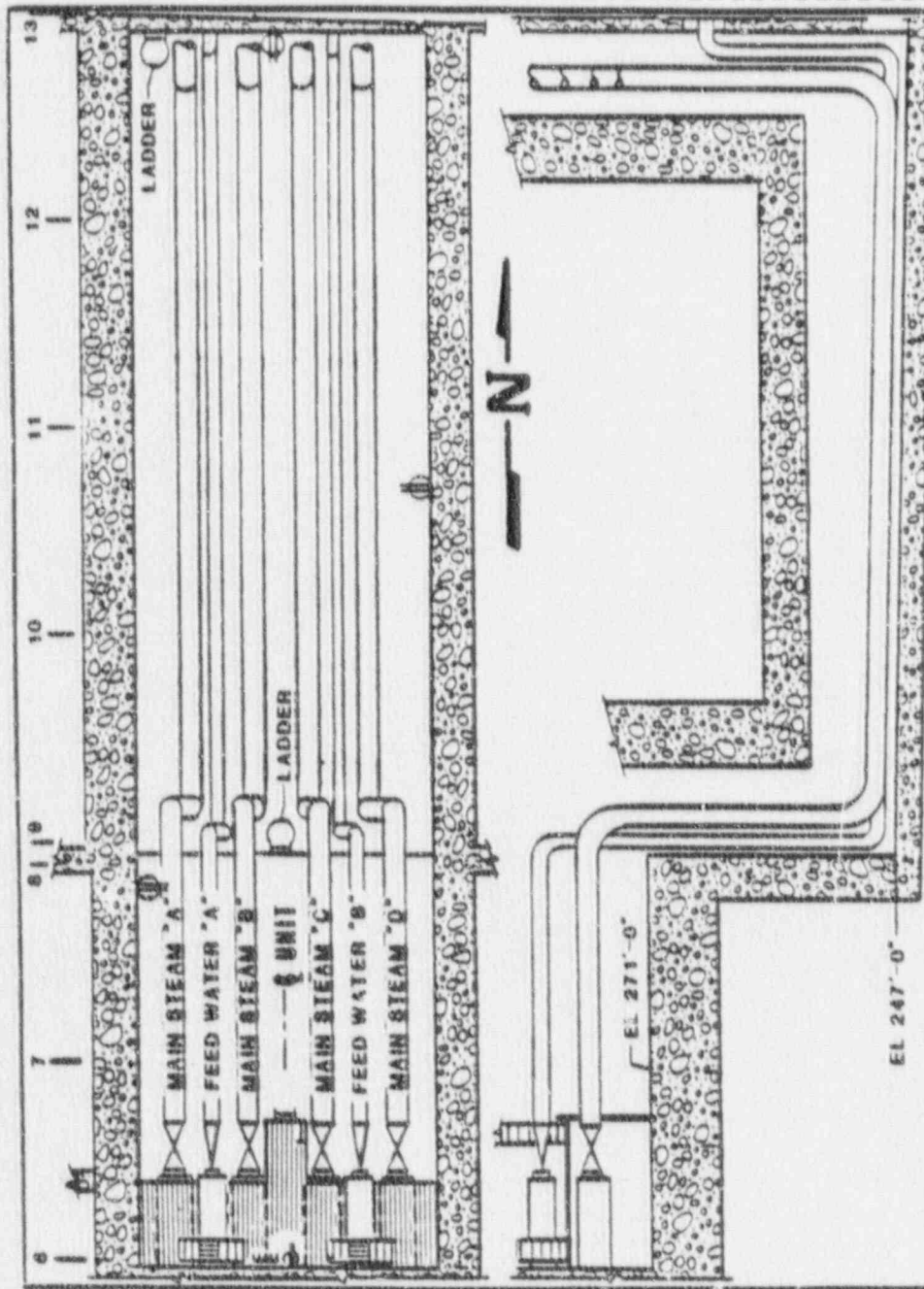
REV 0 (SIGNATURE)(S) \_\_\_\_\_ (SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KEY)

RES SURVEY LOG SHEET  
FORM NO SSL-1

RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

SURVEY NO. \_\_\_\_\_  
DATE \_\_\_\_\_  
TIME \_\_\_\_\_

BUILDING / ELEVATION TB 252-5 \_\_\_\_\_  
SYSTEM & COMPONENT ID / ELEVATION \_\_\_\_\_  
DESCRIPTION / COMMENT \_\_\_\_\_



| RADIATION $\mu$ R/h |                 |
|---------------------|-----------------|
| 1                   | NORMAL 0706     |
| 2                   | 2000 MR/hr 0906 |
| 3                   | 4000 " 0916     |
| 4                   | 5000 " 1006     |
| 5                   | 3000 " 1130     |
| 6                   | 1000 " 1200     |
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AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_

AIR SAMPLE RESULTS: \_\_\_\_\_ ( % EFFECTIVE MPC )

SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_ (SIGNATURE)  
\_\_\_\_\_  
\_\_\_\_\_  
(SIGNATURE)(S) \_\_\_\_\_ (mR)

REV 0 (SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KEY)



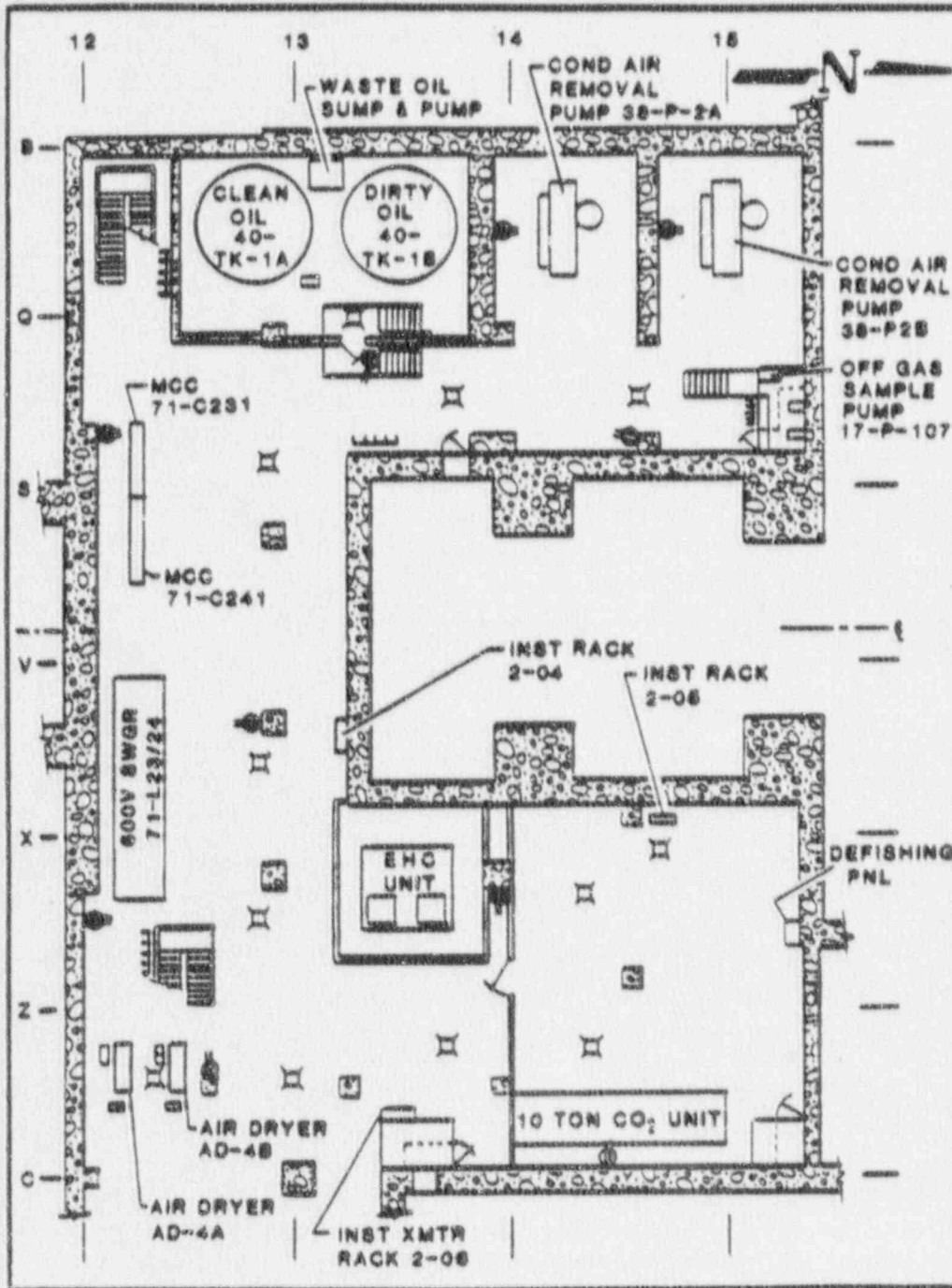
# RES SURVEY LOG SHEET

FORM NO SSL-1

RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

|            |       |
|------------|-------|
| SURVEY NO. | _____ |
| DATE       | _____ |
| TIME       | _____ |

BUILDING / ELEVATION TB 252-6  
 SYSTEM & COMPONENT ID / ELEVATION \_\_\_\_\_  
 DESCRIPTION / COMMENT \_\_\_\_\_



| RADIATION/Time |                |
|----------------|----------------|
| 1              | NORMAL 0700    |
| 2              | 120 MR/hr 0910 |
| 3              | 1600 " 1000    |
| 4              | 150 " 1130     |
| 5              | 120 " 1200     |
| 6              |                |
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AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_

AIR SAMPLE RESULTS: \_\_\_\_\_ ( % EFFECTIVE MPC )

SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_ (SIGNATURE)

\_\_\_\_\_ (SIGNATURE)(S) \_\_\_\_\_ (mR)

# RES SURVEY LOG SHEET

FORM NO SSL-1

RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

SURVEY NO. \_\_\_\_\_

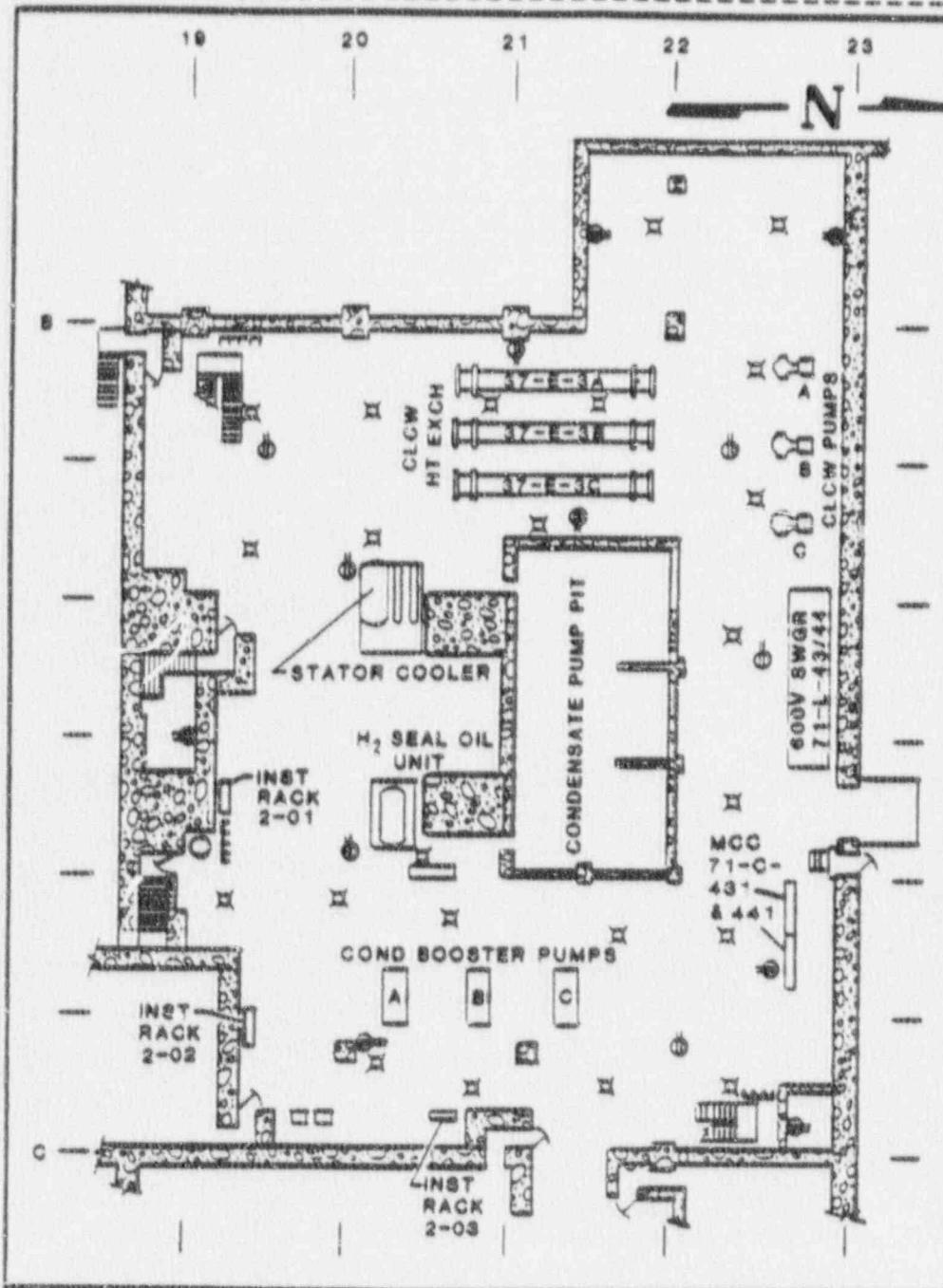
BUILDING / ELEVATION TB 252-7

DATE \_\_\_\_\_

SYSTEM & COMPONENT ID / ELEVATION \_\_\_\_\_

DESCRIPTION / COMPONENT \_\_\_\_\_

TIME \_\_\_\_\_



| RADIATION/7 |              |
|-------------|--------------|
| 1           | Normal 07    |
| 2           | 120 mR/hr 09 |
| 3           | 1600 " 10    |
| 4           | 150 " 11     |
| 5           | 120 " 12     |
| 6           |              |
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AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_

AIR SAMPLE RESULTS: \_\_\_\_\_  
 (% EFFECTIVE MPC)

SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_  
 \_\_\_\_\_ (SIGNATURE) \_\_\_\_\_ (SIGNATURE)

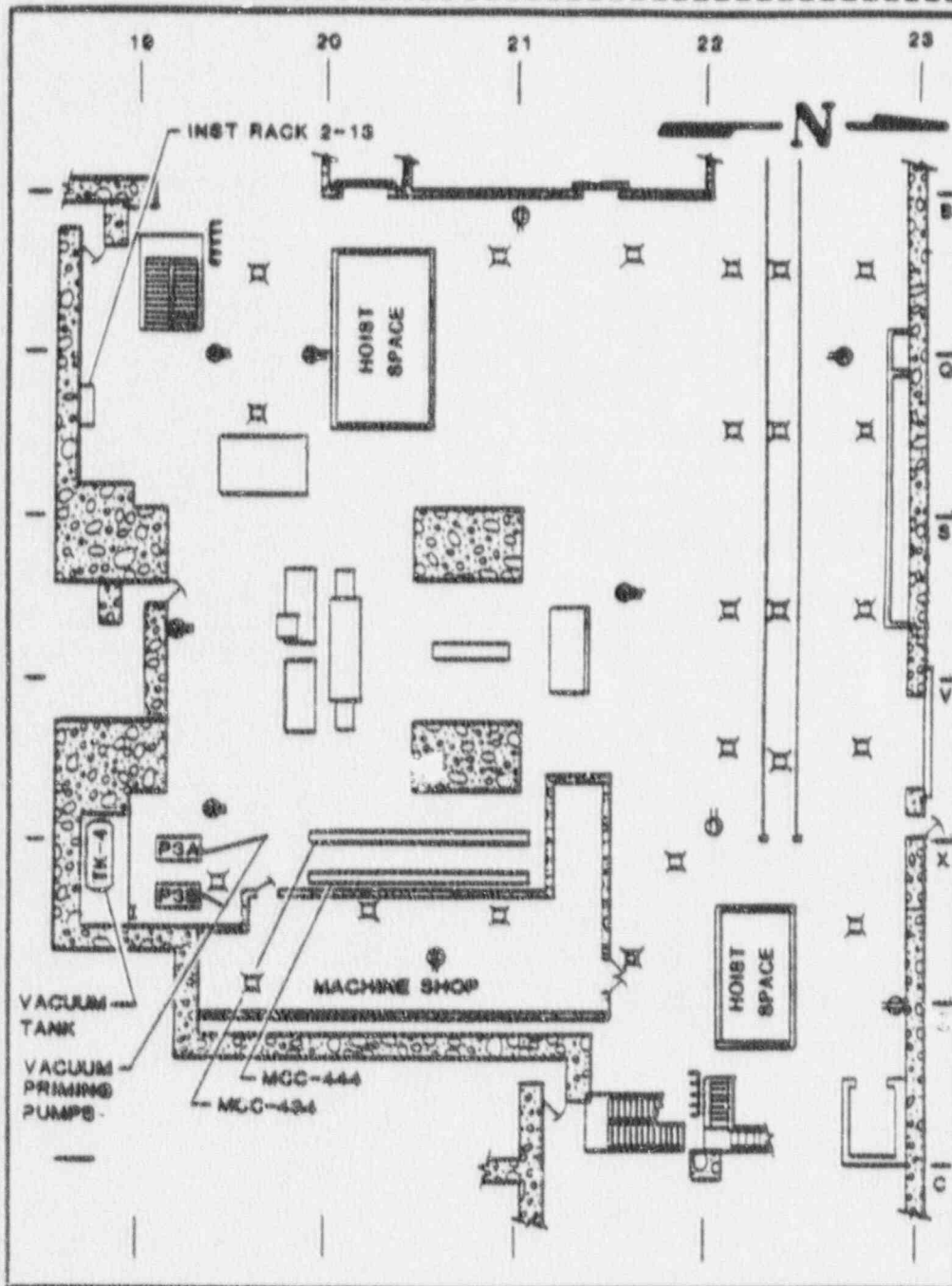
REV 0 (SIGNATURE)(S) \_\_\_\_\_ (SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KEY)

**RES SURVEY LOG SHEET**  
FORM NO SSL-1

RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

SURVEY NO. \_\_\_\_\_  
DATE \_\_\_\_\_  
TIME \_\_\_\_\_

BUILDING / ELEVATION TB 272-2  
SYSTEM & COMPONENT I D / ELEVATION \_\_\_\_\_  
DESCRIPTION / COMMENT \_\_\_\_\_



| RADIATION / hr |                |
|----------------|----------------|
| 1              | Normal 0700    |
| 2              | 140 mR/hr 0910 |
| 3              | 1700 " 1000    |
| 4              | 160 " 1130     |
| 5              | 120 " 1200     |
| 6              |                |
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| CONTAMINATION |  |
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AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_  
AIR SAMPLE RESULTS: \_\_\_\_\_ (% EFFECTIVE MPC)  
SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_ (SIGNATURE)  
\_\_\_\_\_  
(SIGNATURE)(S) \_\_\_\_\_ (mR)

REV 0 (SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KEY)

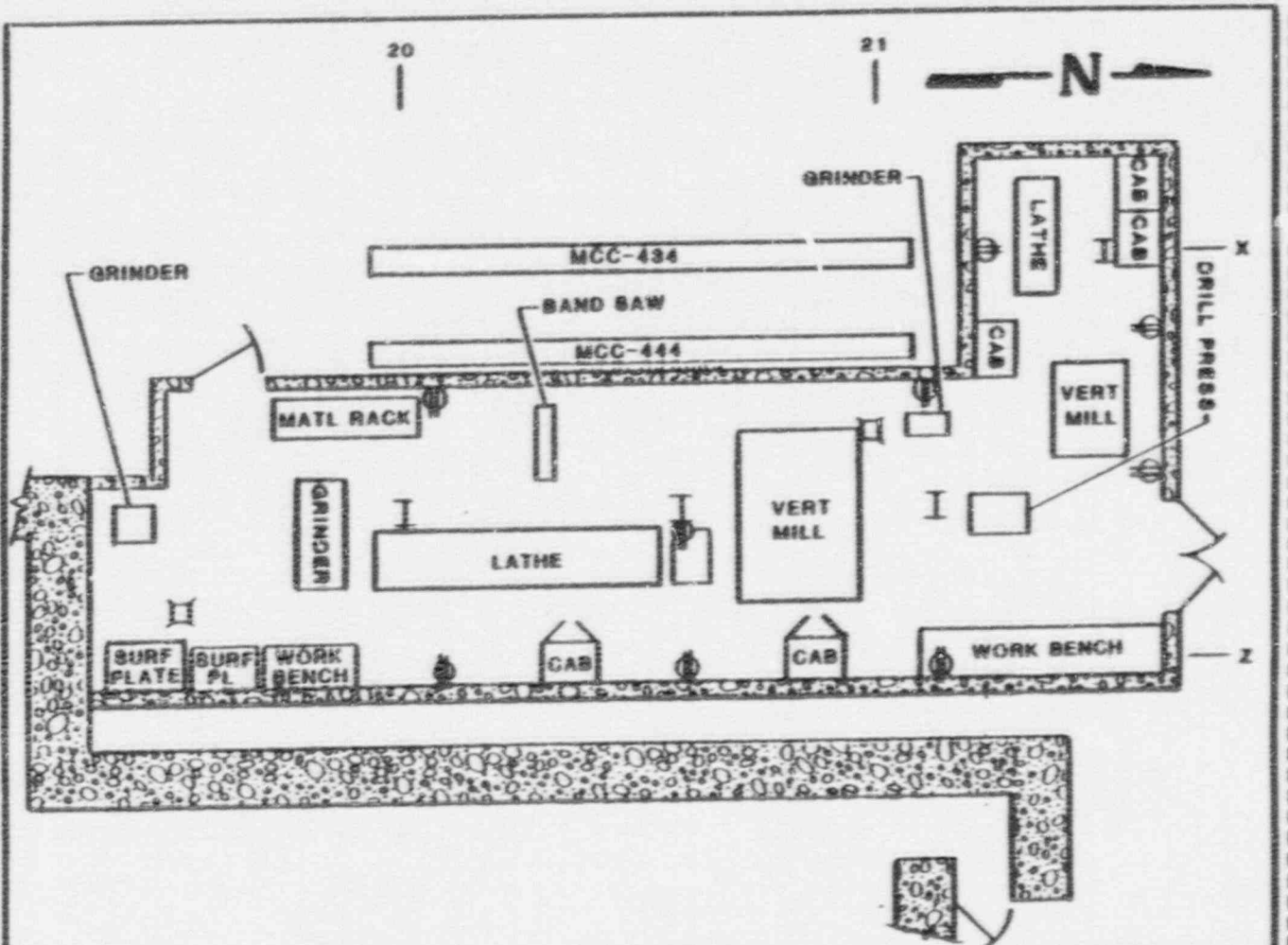


**RES SURVEY LOG SHEET**  
FORM NO SSL-1

RWP NO. \_\_\_\_\_  
 RPOP-6 \_\_\_\_\_

BUILDING / ELEVATION TB 272-3  
SYSTEM & COMPONENT ID / ELEVATION \_\_\_\_\_  
DESCRIPTION / COMMENT \_\_\_\_\_

SURVEY NO. \_\_\_\_\_  
DATE \_\_\_\_\_  
TIME \_\_\_\_\_



AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_

AIR SAMPLE RESULTS: \_\_\_\_\_ ( & EFFECTIVE MPC )

SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (MP) REVIEW \_\_\_\_\_ (SIGNATURE)

REV 0 \_\_\_\_\_ (SIGNATURE(S)) (SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KEY)

| RADIATION $\mu$ R/h |                |
|---------------------|----------------|
| 1                   | Normal 0721    |
| 2                   | 140 m/h/h 0916 |
| 3                   | 1200 " " 1001  |
| 4                   | 160 " " 1131   |
| 5                   | 120 " " 1201   |
| 6                   |                |
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**RES SURVEY LOG SHEET**  
FORM NO SSL-1

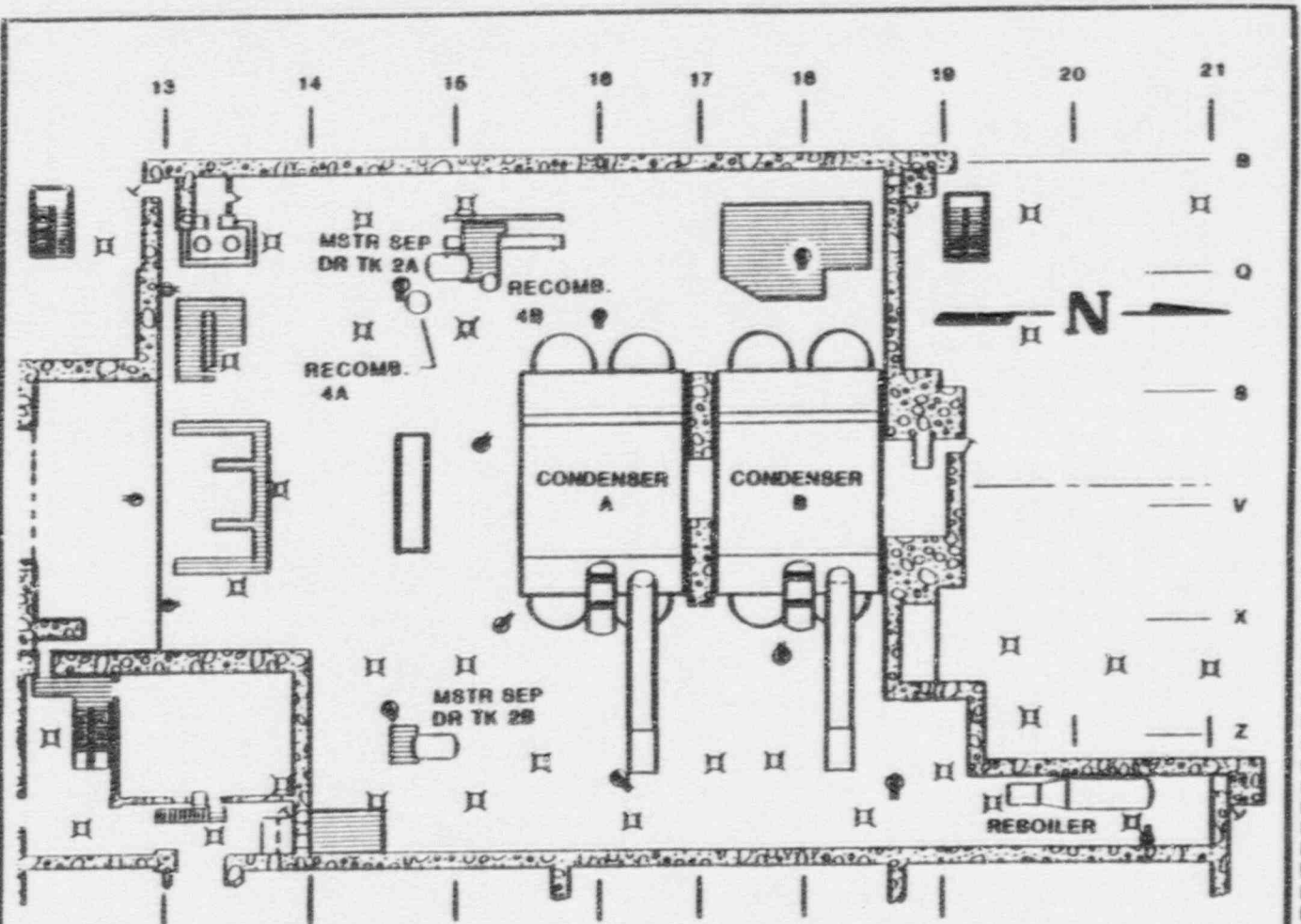
RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_

BUILDING / ELEVATION TB 272-4  
SYSTEM & COMPONENT I D / ELEVATION \_\_\_\_\_  
DESCRIPTION / COMMENT \_\_\_\_\_

SURVEY NO. \_\_\_\_\_

DATE \_\_\_\_\_

TIME \_\_\_\_\_



| RADIATION |                 |
|-----------|-----------------|
| 1         | 1000A / 070     |
| 2         | 1400 ME/HA 0916 |
| 3         | 1200 " 1006     |
| 4         | 1600 " 1134     |
| 5         | 1800 " 1204     |
| 6         |                 |
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| CONTAMINATION |  |
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| 25            |  |

AIRBORNE SURVEY  
AIR SAMPLE RESULTS: \_\_\_\_\_

AIR SAMPLER SERIAL NO.'S. \_\_\_\_\_

(% EFFECTIVE MPC) \_\_\_\_\_

SURVEYOR(S) \_\_\_\_\_

EXPOSURE \_\_\_\_\_

(mR) REVIEW \_\_\_\_\_

(SIGNATURE) \_\_\_\_\_

REV 0

(SIGNATURE(S)) \_\_\_\_\_

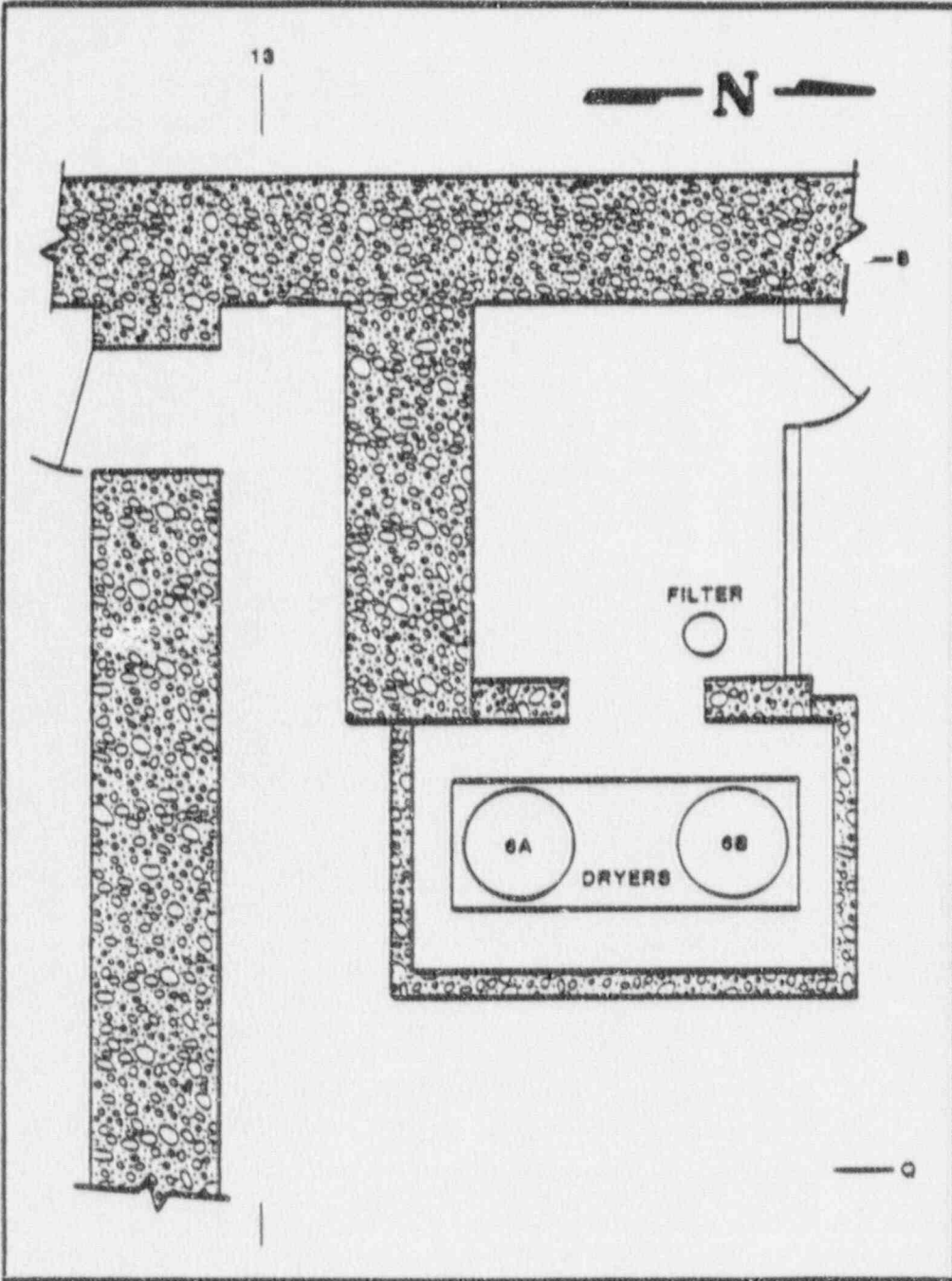
(SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KEY)

**RES SURVEY LOG SHEET**  
FORM NO SSL-1

RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

**SURVEY NO.** \_\_\_\_\_  
**DATE** \_\_\_\_\_  
**TIME** \_\_\_\_\_

**BUILDING / ELEVATION** TB 272-5 \_\_\_\_\_  
**SYSTEM & COMPONENT I D / ELEVATION** \_\_\_\_\_  
**DESCRIPTION / COMMENT** \_\_\_\_\_



| RADIATION/T: |               |
|--------------|---------------|
| 1            | NEAMA/ 070    |
| 2            | 140MB/hr 0911 |
| 3            | 1700 " 1001   |
| 4            | 160 " 1131    |
| 5            | 120 " 1201    |
| 6            |               |
| 7            |               |
| 8            |               |
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| 13           |               |
| 14           |               |
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| CONTAMINATION |  |
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| 1             |  |
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| 25            |  |

AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_  
AIR SAMPLE RESULTS: \_\_\_\_\_  
( % EFFECTIVE MPC )  
SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_ (SIGNATURE)  
\_\_\_\_\_  
(SIGNATURE)(S) \_\_\_\_\_ (SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KEY)

REV 0



**RES SURVEY LOG SHEET**  
FORM NO SSL-1

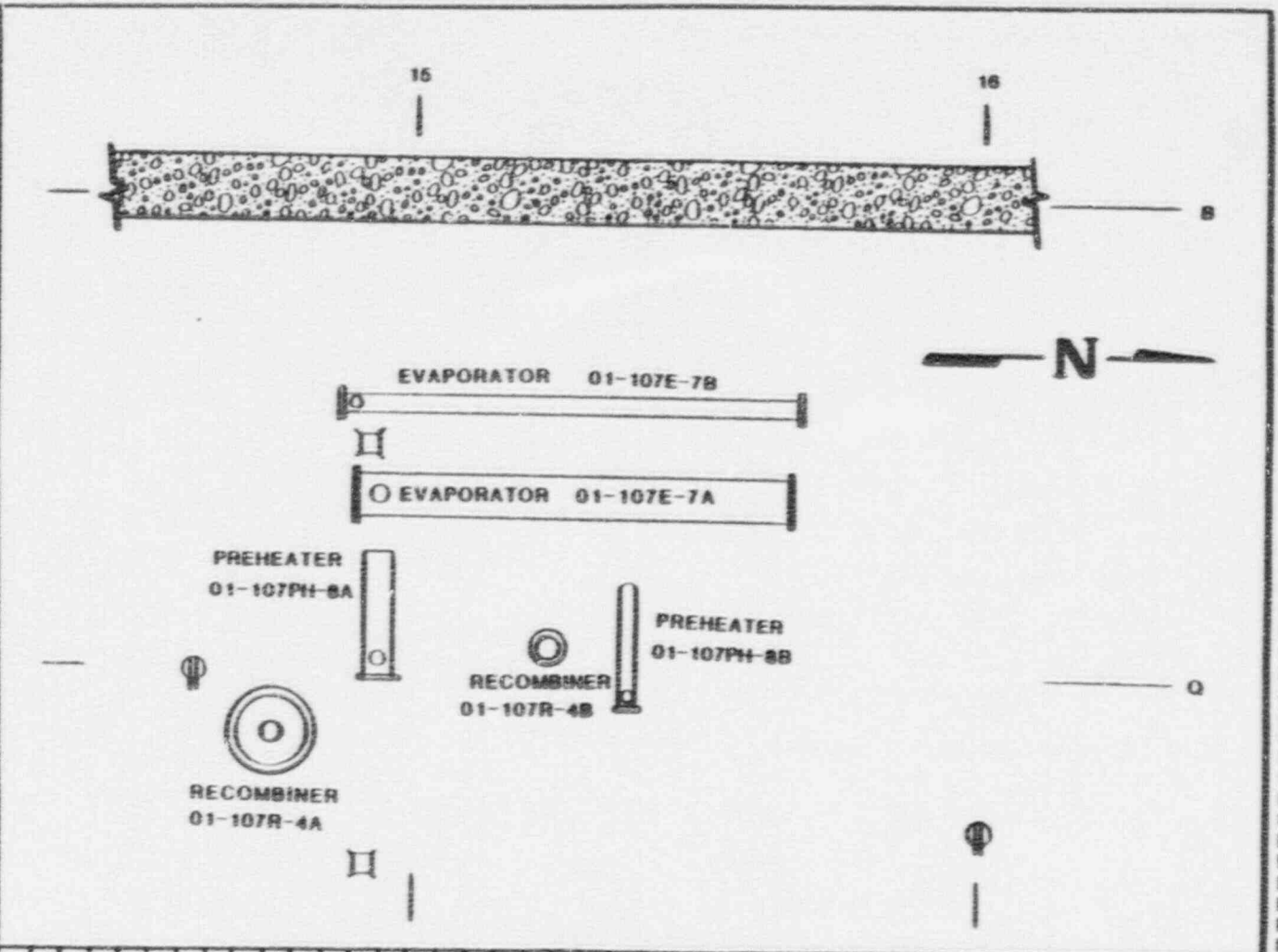
RWP NO.  
 RPOP-5

BUILDING / ELEVATION 1B 272-9  
SYSTEM & COMPONENT I D / ELEVATION \_\_\_\_\_  
DESCRIPTION / COMMENT \_\_\_\_\_

SURVEY NO. \_\_\_\_\_

DATE \_\_\_\_\_

TIME \_\_\_\_\_



| RADIATION     |                   |
|---------------|-------------------|
| 1             | Nearby 0705       |
| 2             | 140' 06" 11/30/01 |
| 3             | 1700 " 12/01      |
| 4             | 160 " 1/30        |
| 5             | 120 " 1/30        |
| 6             |                   |
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| CONTAMINATION |                   |
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| 24            |                   |
| 25            |                   |
| 26            |                   |

AIRBORNE SURVEY  
AIR SAMPLE RESULTS: \_\_\_\_\_

AIR SAMPLER SERIAL NO.'S. \_\_\_\_\_

(% EFFECTIVE MPC) \_\_\_\_\_

SURVEYOR(S) \_\_\_\_\_

EXPOSURE \_\_\_\_\_

(MFR) REVIEW \_\_\_\_\_  
(SIGNATURE)

REV 0

(SIGNATURE(S)) \_\_\_\_\_

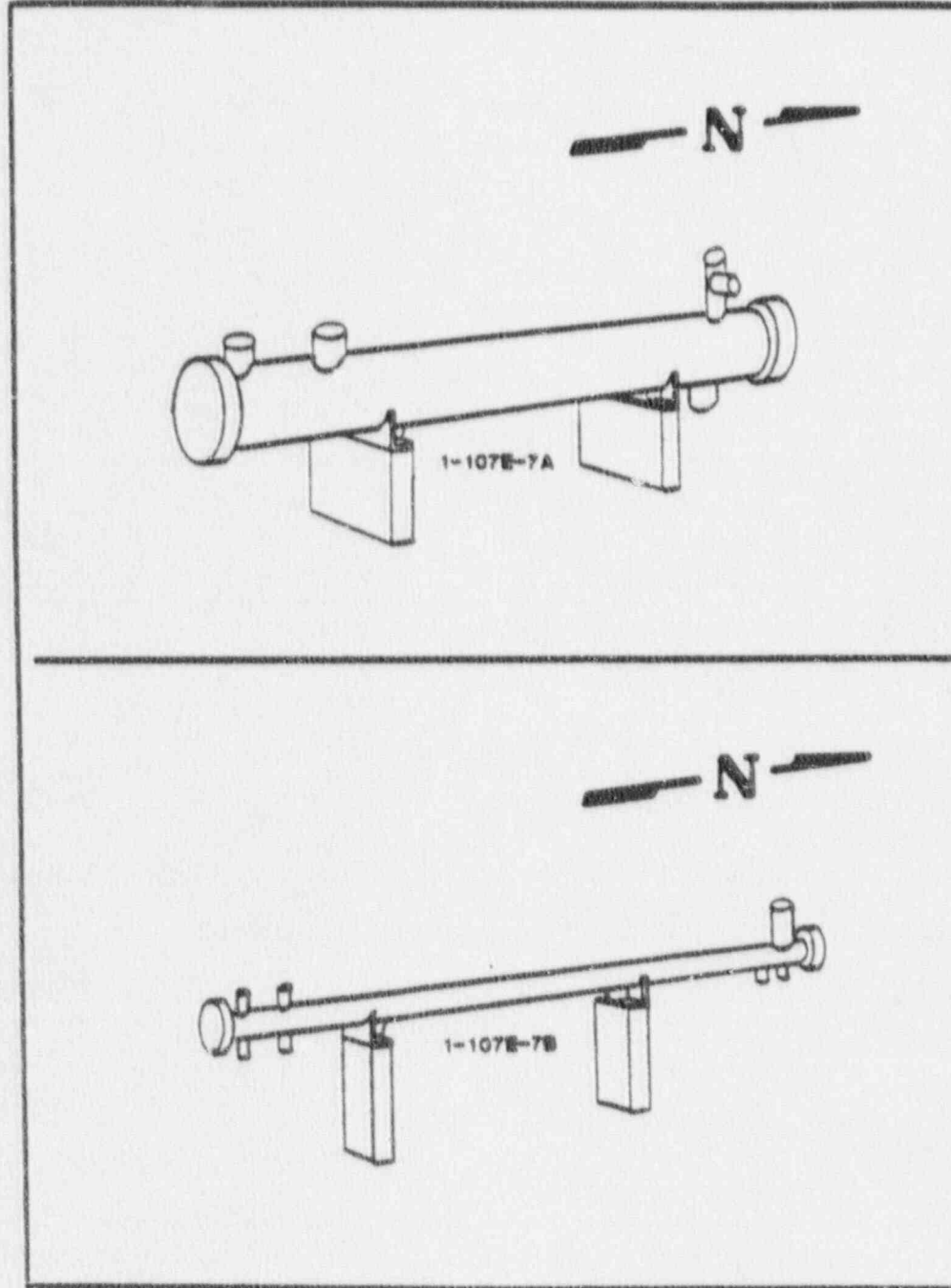
(SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KEY)

**RES SURVEY LOG SHEET**  
FORM NO SSL-1

RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

SURVEY NO. \_\_\_\_\_  
DATE \_\_\_\_\_  
TIME \_\_\_\_\_

BUILDING / ELEVATION TB 272-7  
SYSTEM & COMPONENT I D / ELEVATION \_\_\_\_\_  
DESCRIPTION / COMMENT \_\_\_\_\_



| RADIATION/T.  |               |
|---------------|---------------|
| 1             | Normal 076    |
| 2             | 140 mR/hr 091 |
| 3             | 1700 " 100    |
| 4             | 160 " 113     |
| 5             | 120 " 124     |
| 6             |               |
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| CONTAMINATION |               |
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| 26            |               |

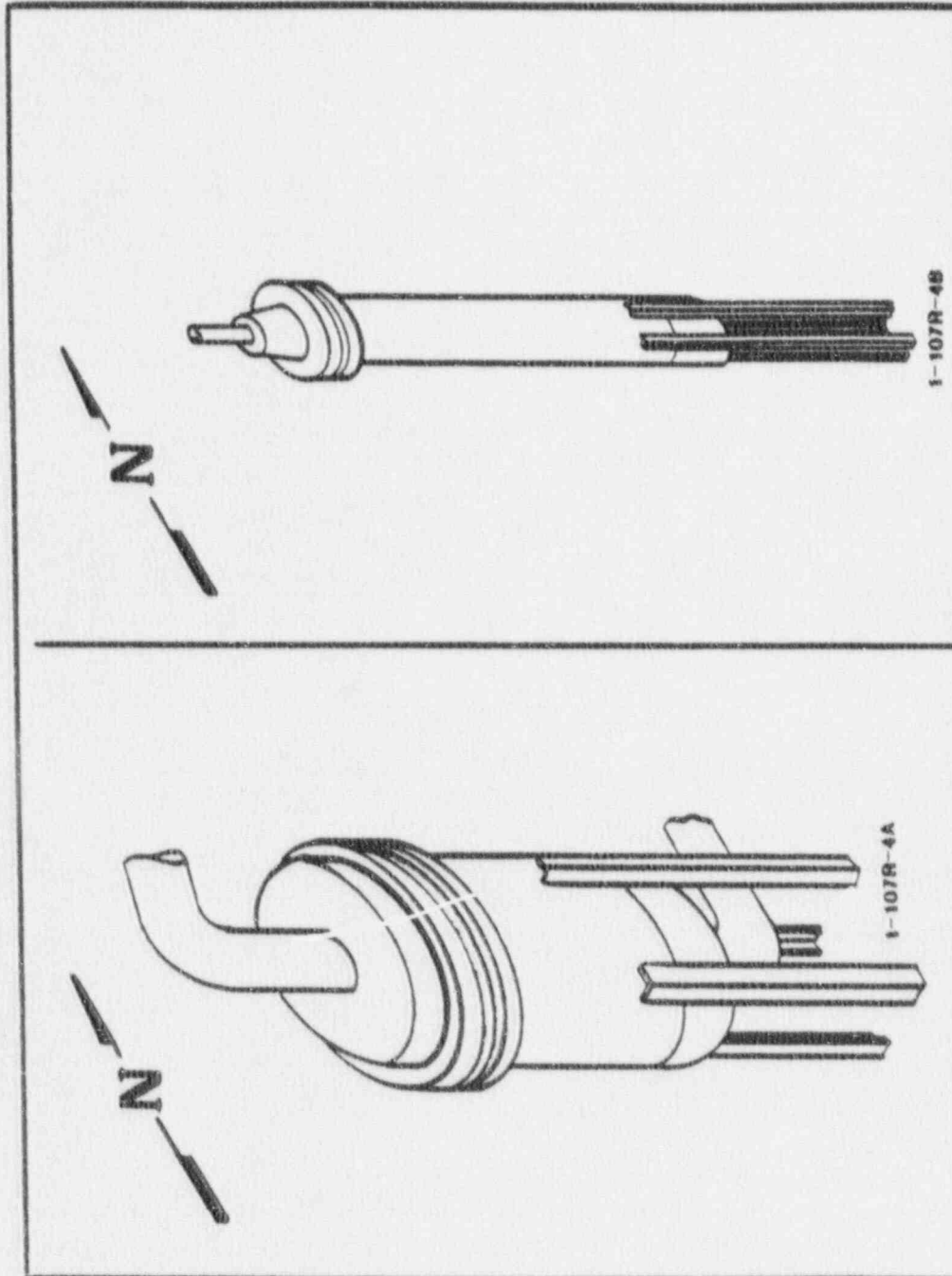
AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_  
AIR SAMPLE RESULTS: \_\_\_\_\_ ( % EFFECTIVE MPC ) \_\_\_\_\_  
SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_ (SIGNATURE)  
\_\_\_\_\_  
(SIGNATURE)(S) \_\_\_\_\_ (mR)

**RES SURVEY LOG SHEET**  
FORM NO SSL-1

RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

**SURVEY NO.** \_\_\_\_\_  
**DATE** \_\_\_\_\_  
**TIME** \_\_\_\_\_

**BUILDING / ELEVATION** TB 272-8 \_\_\_\_\_  
**SYSTEM & COMPONENT I D / ELEVATION** \_\_\_\_\_  
**DESCRIPTION / COMMENT** \_\_\_\_\_



| RADIATION/r   |           |     |
|---------------|-----------|-----|
| 1             | NORMAL    | 07  |
| 2             | 140 mR/hr | 09  |
| 3             | 1700 "    | 100 |
| 4             | 160 "     | 113 |
| 5             | 120 "     | 120 |
| 6             |           |     |
| 7             |           |     |
| 8             |           |     |
| 9             |           |     |
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| CONTAMINATION |           |     |
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| 24            |           |     |
| 25            |           |     |

AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S \_\_\_\_\_  
AIR SAMPLE RESULTS: \_\_\_\_\_  
( % EFFECTIVE MPC )

SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_  
\_\_\_\_\_  
(SIGNATURE)(S) \_\_\_\_\_ (SIGNATURE)

REV 0 (SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KEY)

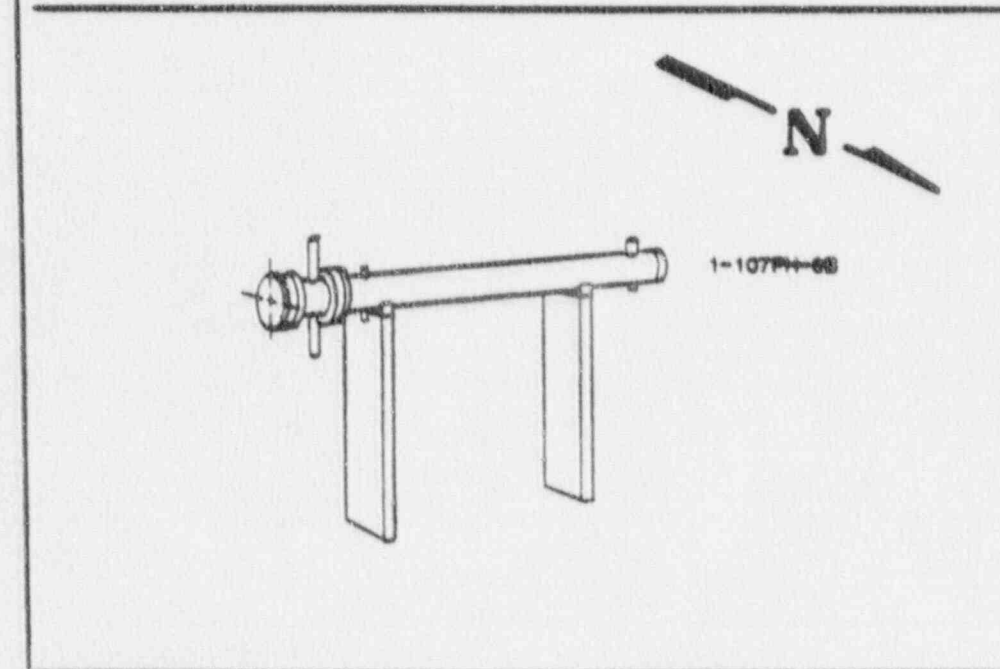
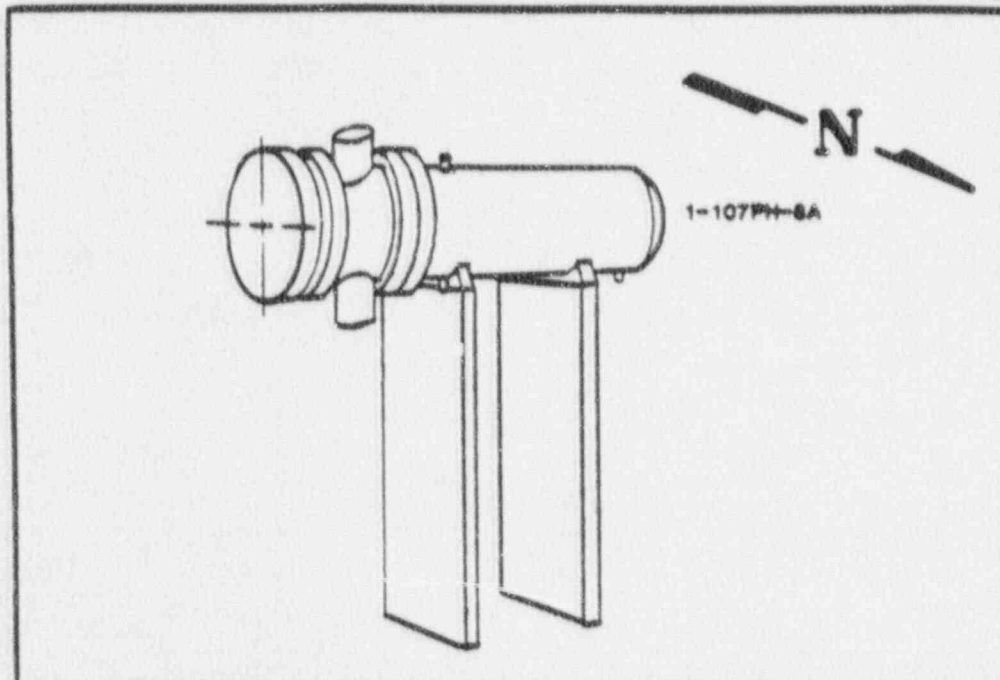


**RES SURVEY LOG SHEET**  
FORM NO SSL-1

RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

**SURVEY NO.** \_\_\_\_\_  
\_\_\_\_\_  
**DATE** \_\_\_\_\_  
\_\_\_\_\_  
**TIME** \_\_\_\_\_

**BUILDING / ELEVATION** IB 272-9  
**SYSTEM & COMPONENT ID / ELEVATION** \_\_\_\_\_  
**DESCRIPTION / COMMENT** \_\_\_\_\_



| RADIATION/T. |           |     |
|--------------|-----------|-----|
| 1            | NORMAL    | 07  |
| 2            | 140 MR/HR | 091 |
| 3            | 1200 "    | 100 |
| 4            | 160 "     | 113 |
| 5            | 120 "     | 120 |
| 6            |           |     |
| 7            |           |     |
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| CONTAMINATION |  |  |
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AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_

AIR SAMPLE RESULTS: \_\_\_\_\_  
( % EFFECTIVE MPC )

SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_ (SIGNATURE)  
\_\_\_\_\_  
(SIGNATURE)(S) \_\_\_\_\_ (mR)

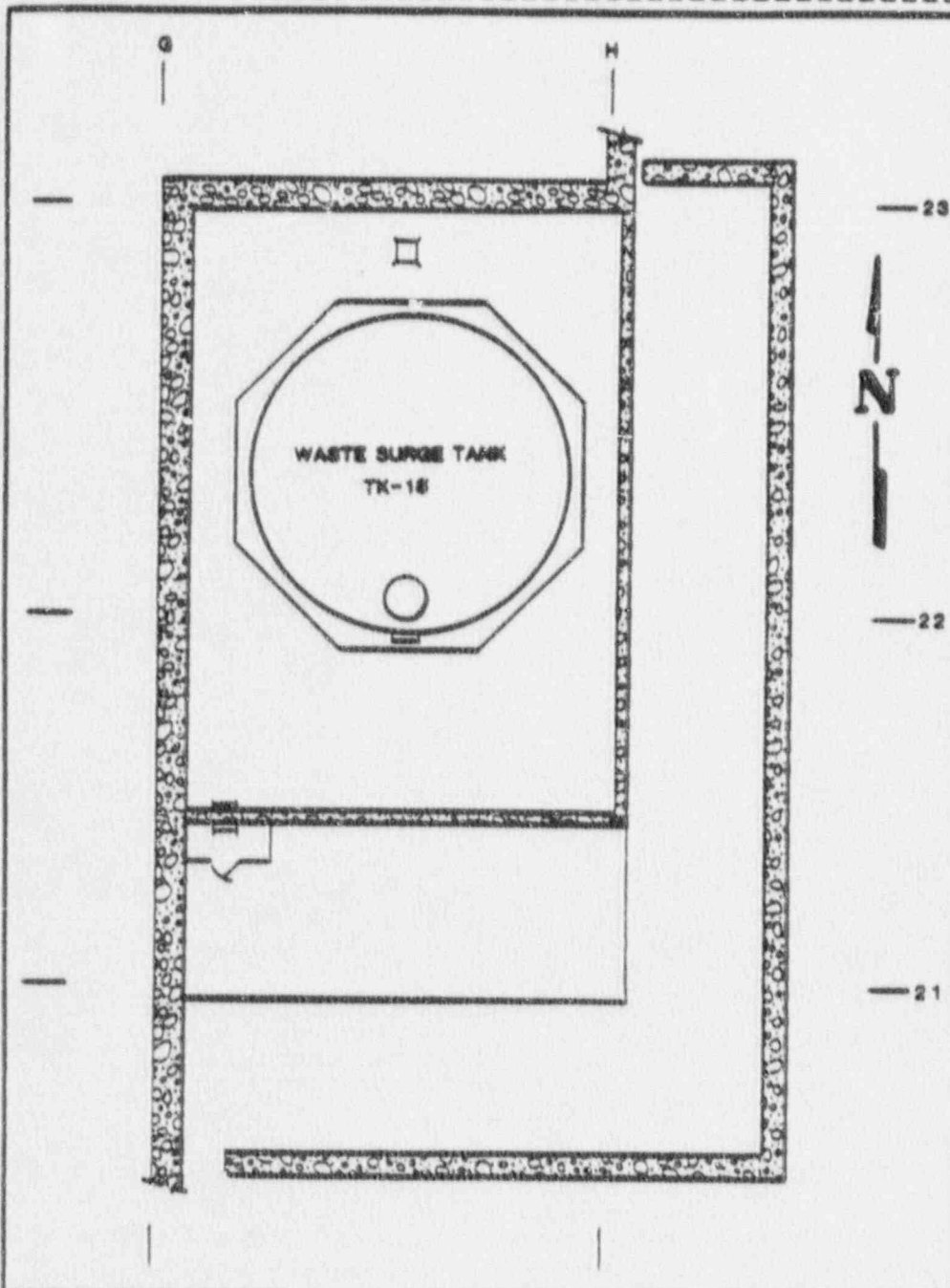
REV 0 (SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KEY)

**RES SURVEY LOG SHEET**  
FORM NO SSL-1

RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

|            |       |
|------------|-------|
| SURVEY NO. | _____ |
| DATE       | _____ |
| TIME       | _____ |

BUILDING / ELEVATION TB 272-10  
SYSTEM & COMPONENT ID / ELEVATION \_\_\_\_\_  
DESCRIPTION / COMMENT \_\_\_\_\_



| RADIATION $\mu$ R/h |           |      |
|---------------------|-----------|------|
| 1                   | NORMAL    | 070  |
| 2                   | 140 mR/hr | 0916 |
| 3                   | 1700 "    | 1001 |
| 4                   | 160 "     | 1136 |
| 5                   | 170 "     | 1204 |
| 6                   |           |      |
| 7                   |           |      |
| 8                   |           |      |
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| CONTAMINATION |  |  |
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| 25            |  |  |

AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_  
AIR SAMPLE RESULTS: \_\_\_\_\_  
( % EFFECTIVE MPC )  
SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_  
\_\_\_\_\_  
(SIGNATURE)(S) (SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KEY)

REV 0

# RES SURVEY LOG SHEET

FORM NO SSL-1

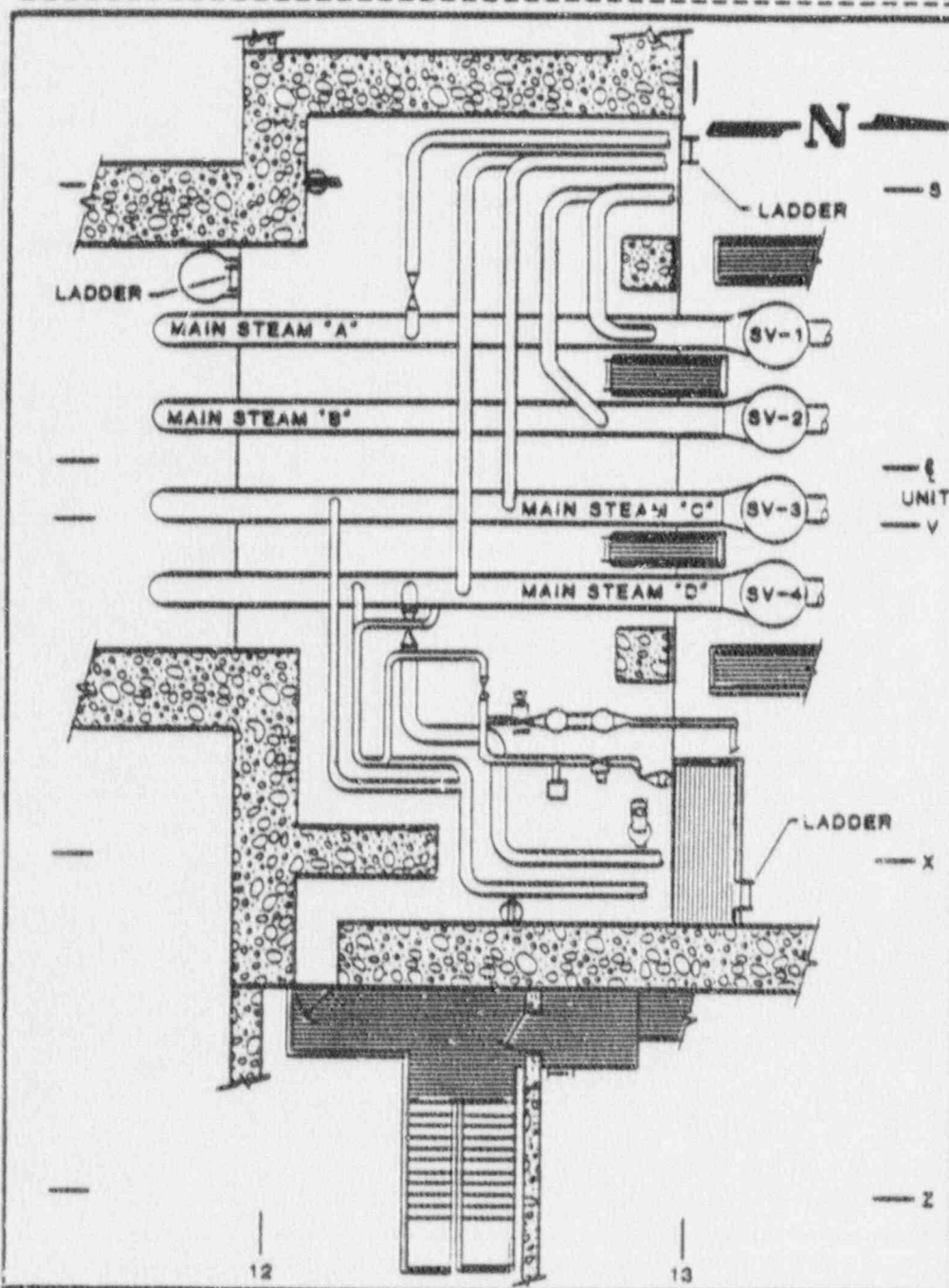
RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

SURVEY NO. \_\_\_\_\_  
 DATE \_\_\_\_\_  
 TIME \_\_\_\_\_

BUILDING / ELEVATION IB 286-1

SYSTEM & COMPONENT ID / ELEVATION \_\_\_\_\_

DESCRIPTION / COMMENT \_\_\_\_\_



| RADIATION/ft.a |                 |
|----------------|-----------------|
| 1              | Normal 070~     |
| 2              | 140 c R/hr 0910 |
| 3              | 1700 " 1040     |
| 4              | 160 " 1130      |
| 5              | 120 " 1200      |
| 6              |                 |
| 7              |                 |
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| CONTAMINATION  |                 |
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| 25             |                 |

AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_  
 AIR SAMPLE RESULTS: \_\_\_\_\_  
 ( % EFFECTIVE MPC )  
 SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_  
 \_\_\_\_\_ (mR) (SIGNATURE)

REV 0 (SIGNATURE)(S) (SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KEY)



# RES SURVEY LOG SHEET

FORM NO SSL-1

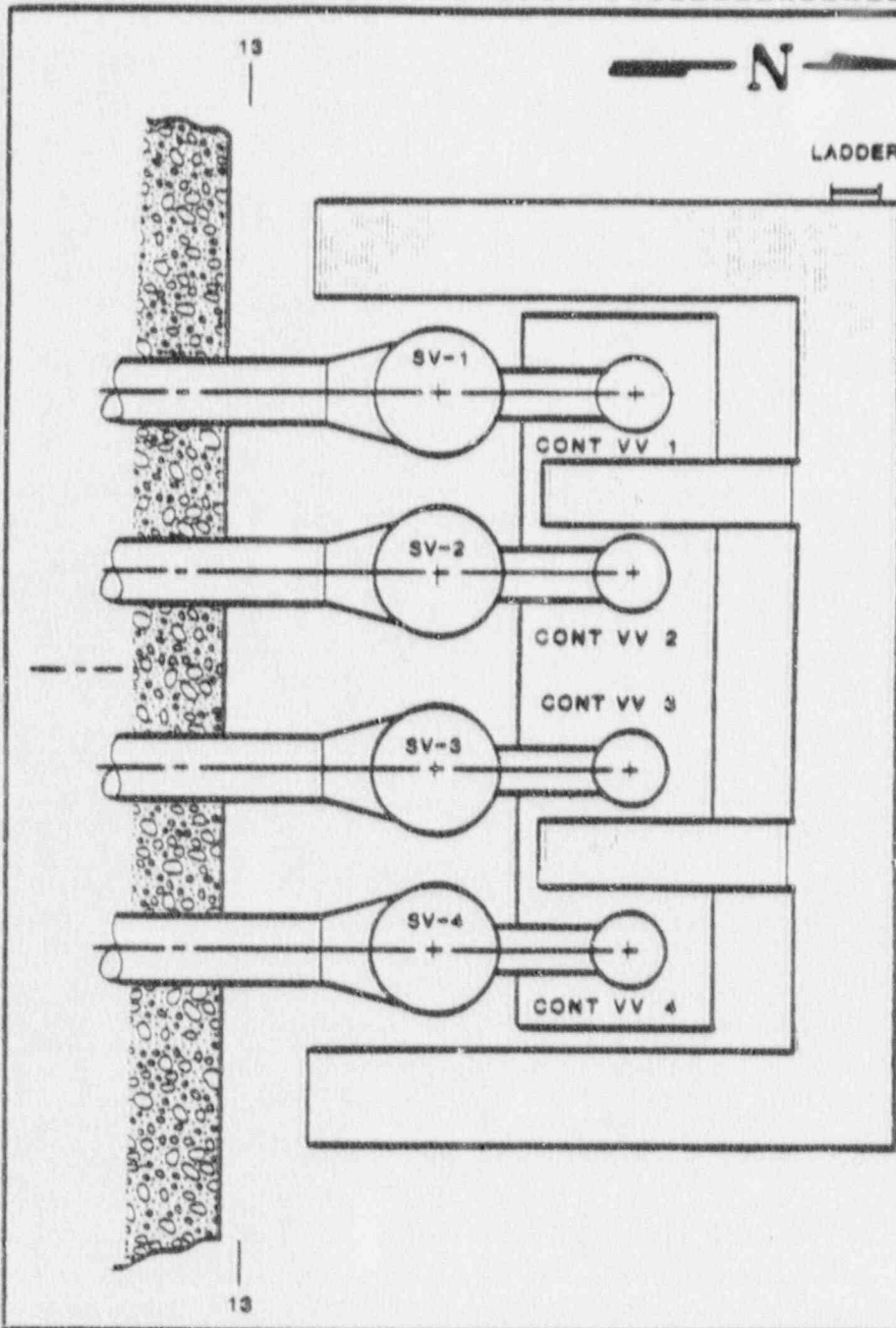
RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

SURVEY NO. \_\_\_\_\_  
 DATE \_\_\_\_\_  
 TIME \_\_\_\_\_

BUILDING / ELEVATION TB 288-1

SYSTEM & COMPONENT ID / ELEVATION \_\_\_\_\_

DESCRIPTION / COMMENT \_\_\_\_\_



| RADIATION/T   |              |
|---------------|--------------|
| 1             | NORMAL 076   |
| 2             | 1400R/HR 091 |
| 3             | 1700 " 106   |
| 4             | 160 " 113    |
| 5             | 120 " 126    |
| 6             |              |
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| CONTAMINATION |              |
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AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_

AIR SAMPLE RESULTS: \_\_\_\_\_ ( % EFFECTIVE MPC ) \_\_\_\_\_

SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_ (SIGNATURE)

\_\_\_\_\_  
 (SIGNATURE)(S) \_\_\_\_\_ (mR)

REV 0 (SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KEY)

# RES SURVEY LOG SHEET

FORM NO SSL-1

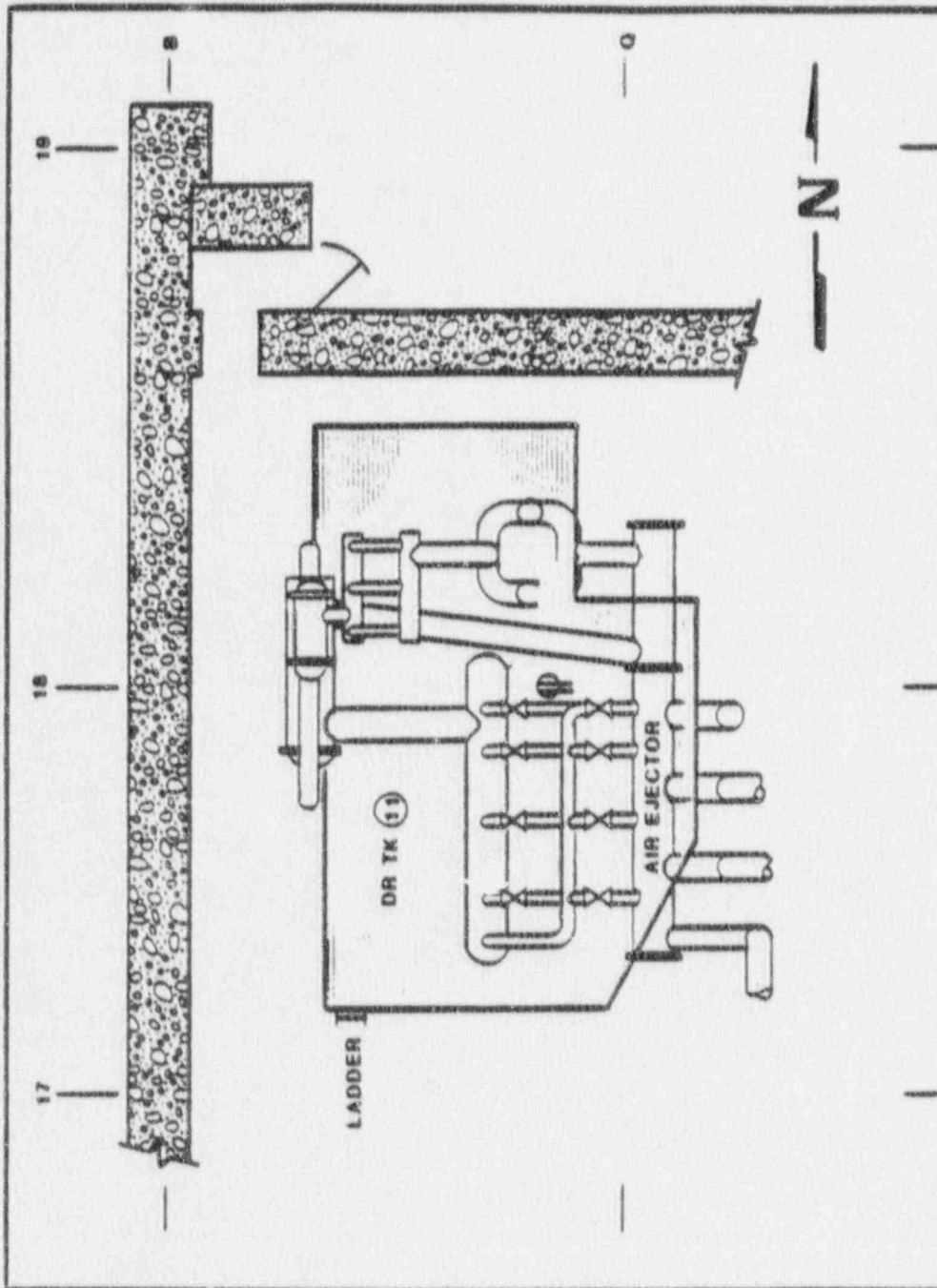
RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

SURVEY NO. \_\_\_\_\_  
 DATE \_\_\_\_\_  
 TIME \_\_\_\_\_

BUILDING / ELEVATION TB 288-2

SYSTEM & COMPONENT I D / ELEVATION \_\_\_\_\_

DESCRIPTION / COMMENT \_\_\_\_\_



| RADIATION/ft <sup>2</sup> |           |      |
|---------------------------|-----------|------|
| 1                         | Normal    | 0701 |
| 2                         | 140 mB/hr | 0910 |
| 3                         | 1200 "    | 1025 |
| 4                         | 160 "     | 1136 |
| 5                         | 120 "     | 1200 |
| 6                         |           |      |
| 7                         |           |      |
| 8                         |           |      |
| 9                         |           |      |
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| CONTAMINATION |  |
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AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_  
 AIR SAMPLE RESULTS: \_\_\_\_\_ ( % EFFECTIVE MPC ) \_\_\_\_\_  
 SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_ (SIGNATURE)  
 \_\_\_\_\_ (SIGNATURE)(S) \_\_\_\_\_ (mR)

REV 0 (SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KEY)

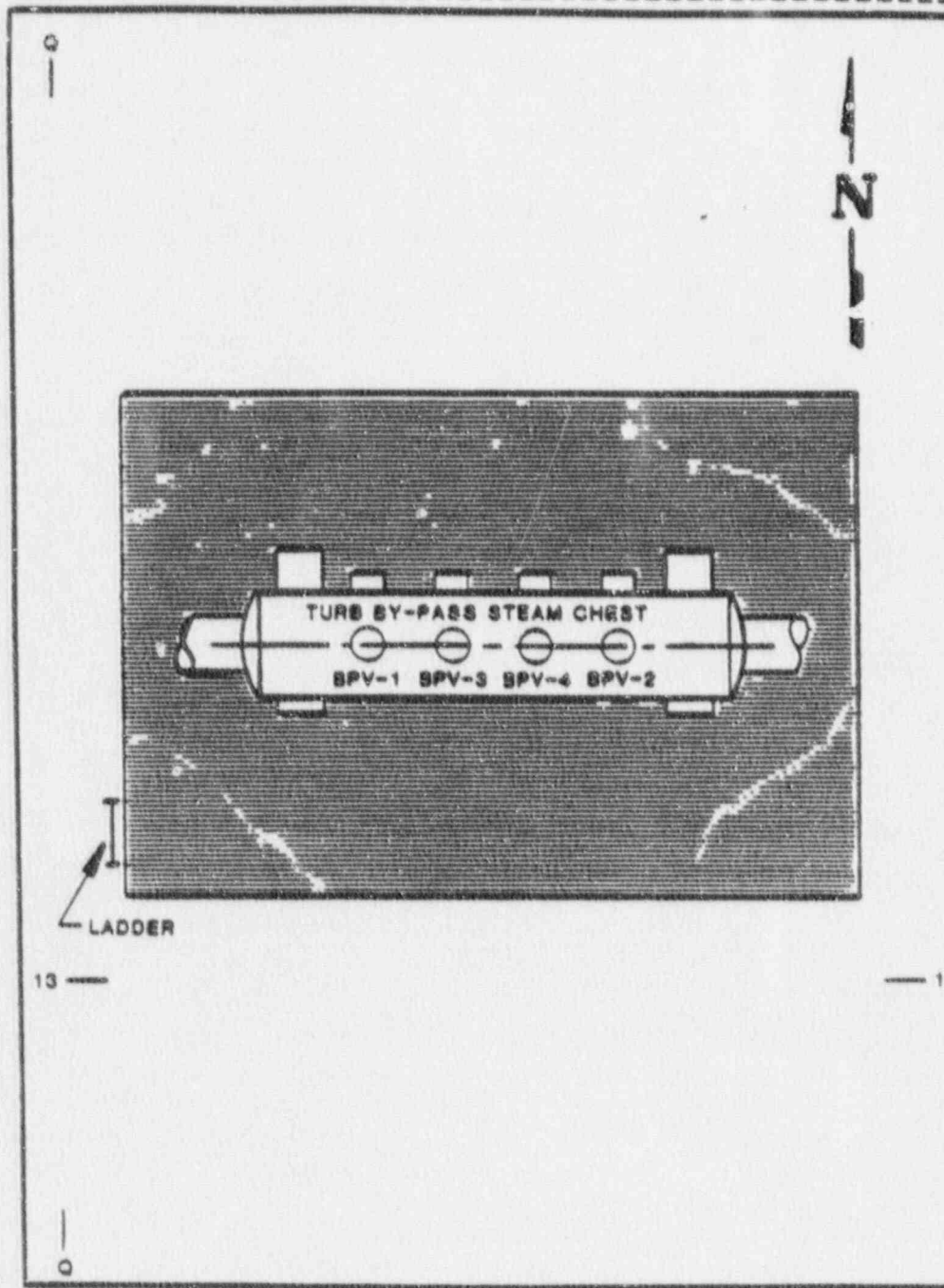
# RES SURVEY LOG SHEET

FORM NO SSL-1

RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

|            |
|------------|
| SURVEY NO. |
| DATE       |
| TIME       |

BUILDING / ELEVATION TB 288-3  
 SYSTEM & COMPONENT ID / ELEVATION \_\_\_\_\_  
 DESCRIPTION / COMMENT \_\_\_\_\_



| RADIATION/TIME |                |
|----------------|----------------|
| 1              | NORMAL 0700    |
| 2              | 140 mR/hr 0910 |
| 3              | 1700 " 1000    |
| 4              | 160 " 1130     |
| 5              | 120 " 1200     |
| 6              |                |
| 7              |                |
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| CONTAMINATION |  |
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AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_  
 AIR SAMPLE RESULTS: \_\_\_\_\_ ( % EFFECTIVE MPC ) \_\_\_\_\_  
 SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_ (SIGNATURE)  
 \_\_\_\_\_ (SIGNATURE)(S) \_\_\_\_\_ (mR)  
 REV 0 (SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KEY)



# RES SURVEY LOG SHEET

FORM NO 3SL-1

RWP NO. \_\_\_\_\_

RPOP-5 \_\_\_\_\_

\_\_\_\_\_

SURVEY NO. \_\_\_\_\_

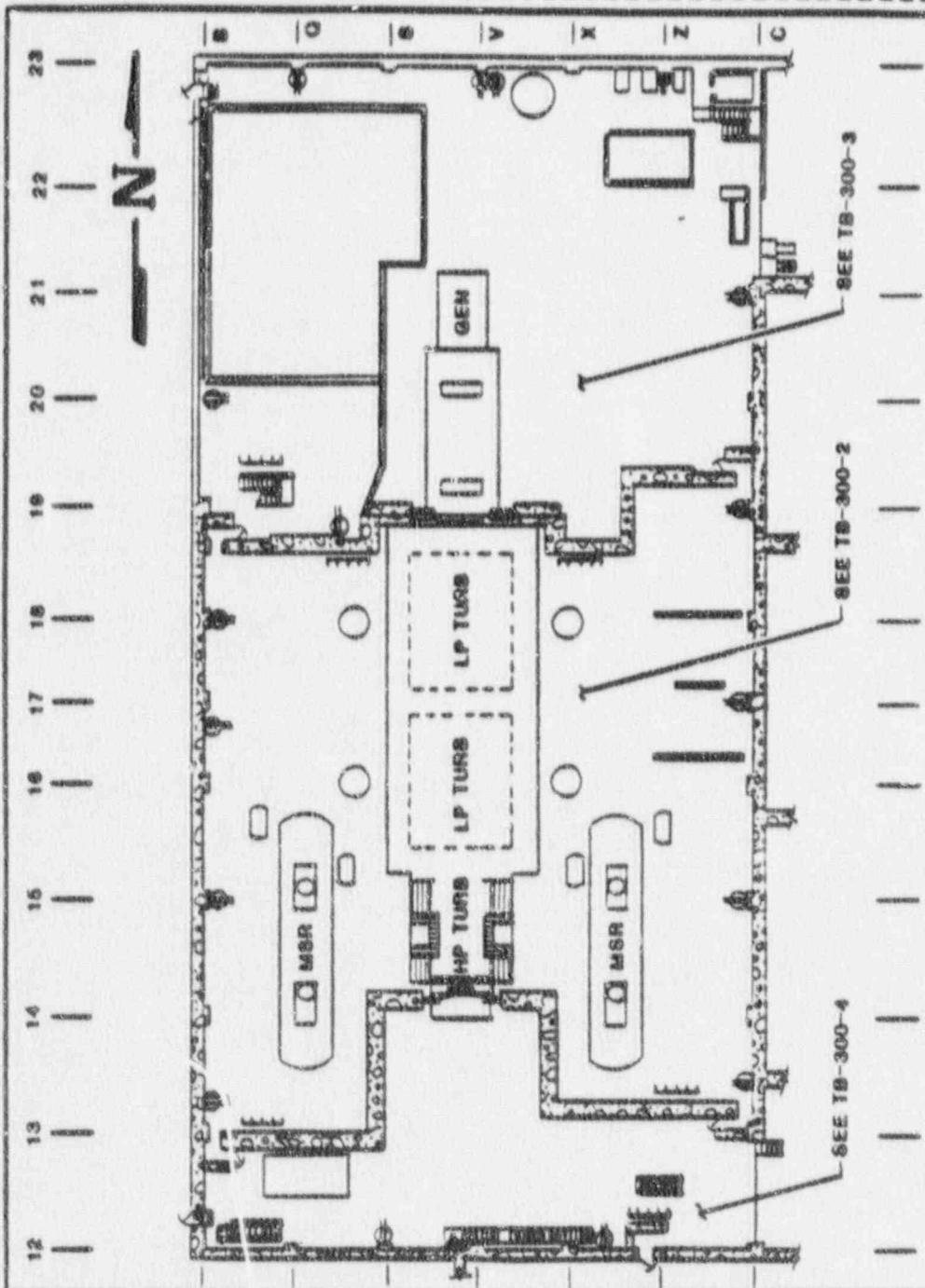
DATE \_\_\_\_\_

TIME \_\_\_\_\_

BUILDING / ELEVATION TB 300-1

SYSTEM & COMPONENT I D / ELEVATION \_\_\_\_\_

DESCRIPTION / COMMENT \_\_\_\_\_



**RADIATION/Tm**

|    |          |      |
|----|----------|------|
| 1  | NORMAL   | 0700 |
| 2  | 145 MR/A | 0910 |
| 3  | 1670 "   | 1000 |
| 4  | 195 "    | 1130 |
| 5  | 150 "    | 1200 |
| 6  |          |      |
| 7  |          |      |
| 8  |          |      |
| 9  |          |      |
| 10 |          |      |
| 11 |          |      |
| 12 |          |      |
| 13 |          |      |
| 14 |          |      |
| 15 |          |      |

**CONTAMINATION**

|    |  |
|----|--|
| 1  |  |
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| 24 |  |
| 25 |  |

AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_

AIR SAMPLE RESULTS: \_\_\_\_\_ (% EFFECTIVE MPC)

SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_ (SIGNATURE)

\_\_\_\_\_  
 \_\_\_\_\_ (SIGNATURE) \_\_\_\_\_ (mR)

REV 0 \_\_\_\_\_ (SIGNATURE)(S) (SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KEY)

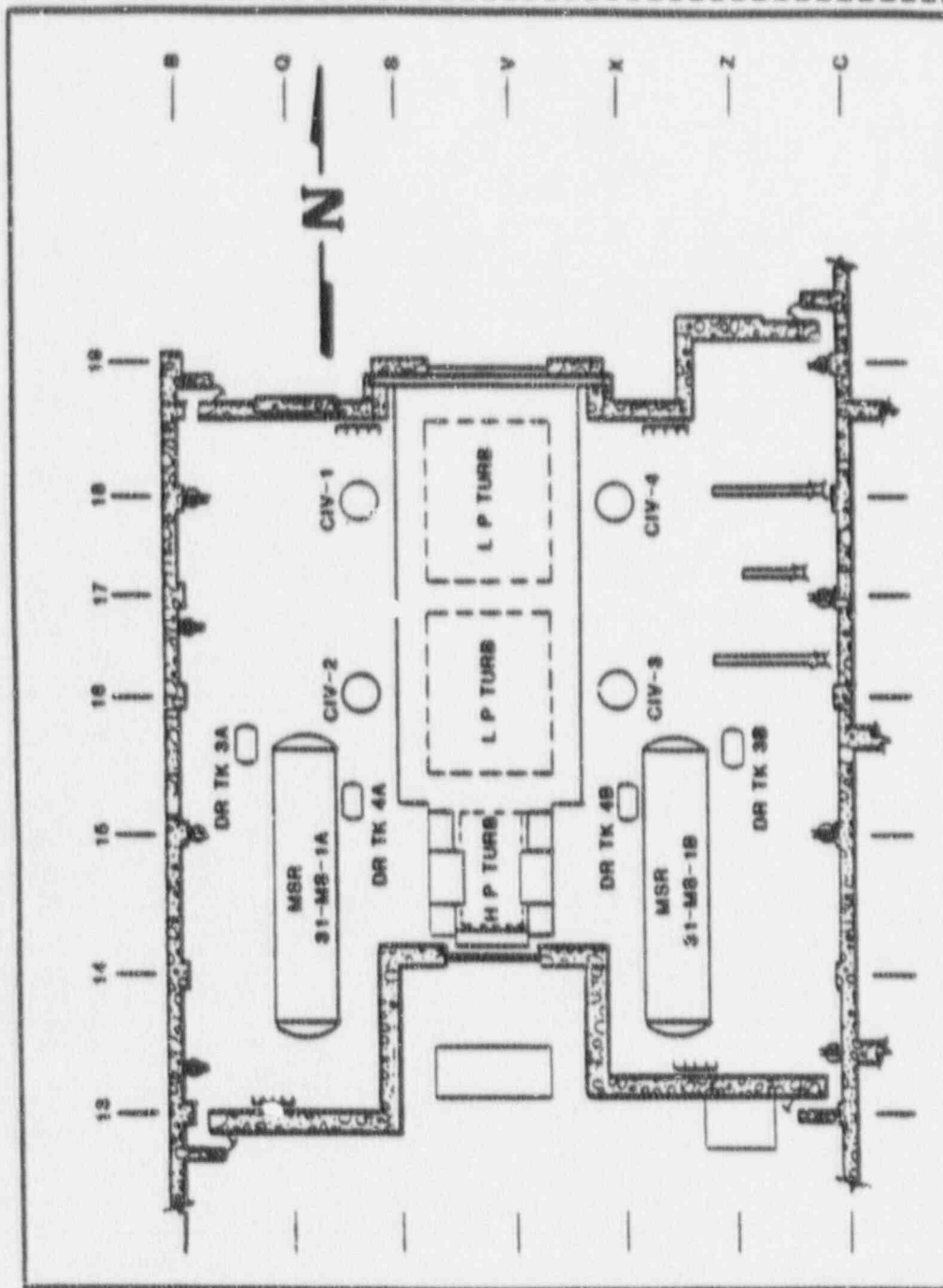
# RES SURVEY LOG SHEET

FORM NO SSL-1

RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

SURVEY NO. \_\_\_\_\_  
 DATE \_\_\_\_\_  
 TIME \_\_\_\_\_

BUILDING / ELEVATION TB 300-2 \_\_\_\_\_  
 SYSTEM & COMPONENT I D / ELEVATION \_\_\_\_\_  
 DESCRIPTION / COMMENT \_\_\_\_\_



| RADIATION/T. |                |
|--------------|----------------|
| 1            | Normal / 0.70  |
| 2            | 110 mR/hr 0.91 |
| 3            | 1400 " 1.03    |
| 4            | 160 " 1.13     |
| 5            | 110 " 1.20     |
| 6            |                |
| 7            |                |
| 8            |                |
| 9            |                |
| 10           |                |
| 11           |                |
| 12           |                |
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| 16           |                |
| 17           |                |
| 18           |                |
| 19           |                |
| 20           |                |
| 21           |                |
| 22           |                |
| 23           |                |
| 24           |                |
| 25           |                |
| 26           |                |

| CONTAMINATION |  |
|---------------|--|
| 1             |  |
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| 23            |  |
| 24            |  |
| 25            |  |
| 26            |  |

AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_  
 AIR SAMPLE RESULTS: \_\_\_\_\_  
 ( % EFFECTIVE MPC )

SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_  
 \_\_\_\_\_ (SIGNATURE) \_\_\_\_\_ (SIGNATURE)

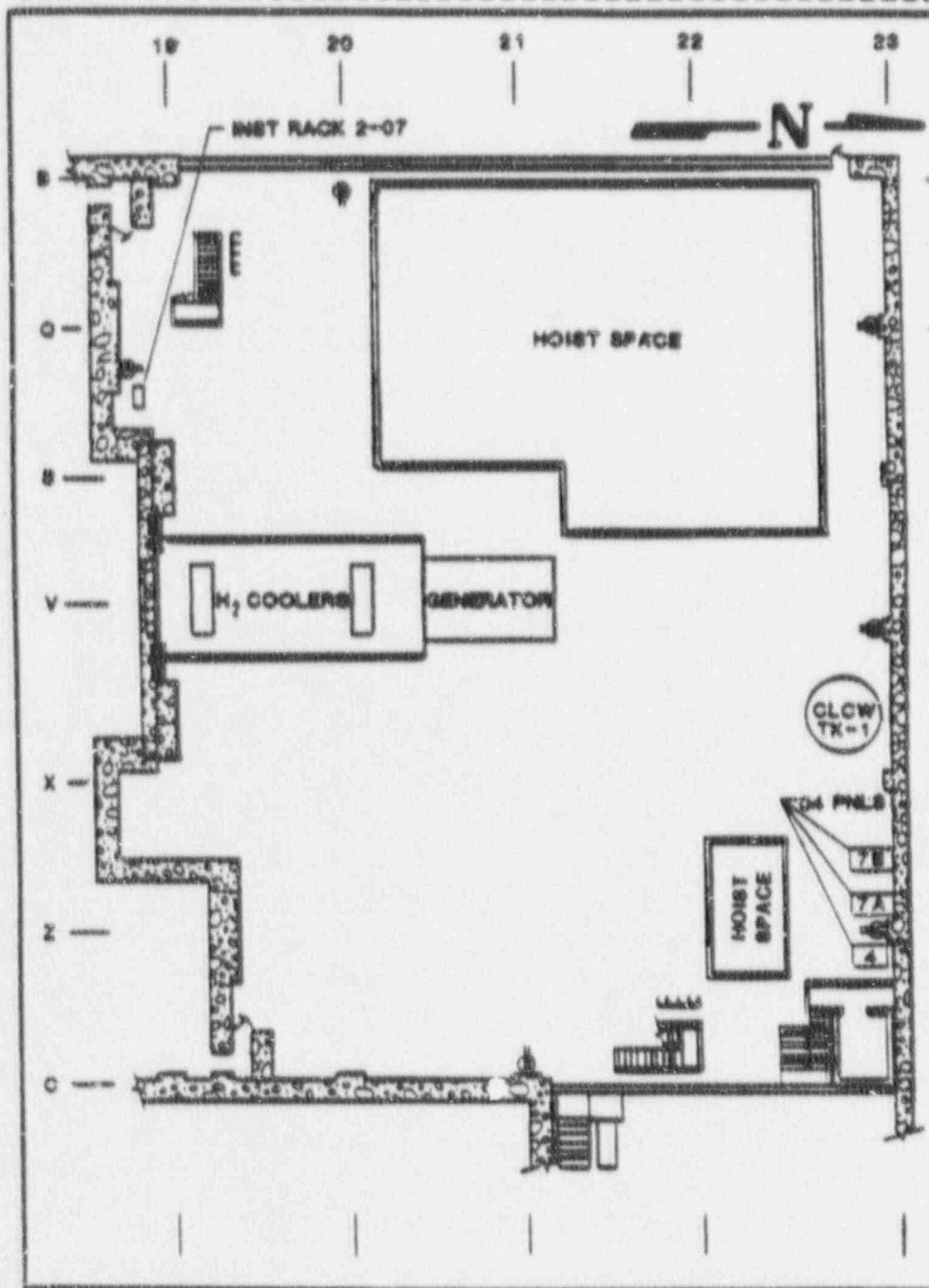
REV 0 (SIGNATURE)(S) (SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KEY)

**RES SURVEY LOG SHEET**  
FORM NO SSL-1

RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

SURVEY NO. \_\_\_\_\_  
DATE \_\_\_\_\_  
TIME \_\_\_\_\_

BUILDING / ELEVATION TB 300-3  
SYSTEM & COMPONENT ID / ELEVATION \_\_\_\_\_  
DESCRIPTION / COMMENT \_\_\_\_\_



| RADIATION/TT |               |
|--------------|---------------|
| 1            | NORMAL 076    |
| 2            | 145 MB/HR 091 |
| 3            | 1670 " 100    |
| 4            | 195 " 113     |
| 5            | 150 " 126     |
| 6            |               |
| 7            |               |
| 8            |               |
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| 20           |               |
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| 23           |               |
| 24           |               |
| 25           |               |
| 26           |               |

| CONTAMINATION |  |
|---------------|--|
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| 23            |  |
| 24            |  |
| 25            |  |
| 26            |  |

AIRBORNE SURVEY AIR SAMPLER SERIAL NO'S. \_\_\_\_\_  
AIR SAMPLE RESULTS: \_\_\_\_\_ ( % EFFECTIVE MPC )  
SURVEYOR(S) \_\_\_\_\_ EXPOSURE \_\_\_\_\_ (mR) REVIEW \_\_\_\_\_ (SIGNATURE)  
\_\_\_\_\_  
(SIGNATURE)(S) \_\_\_\_\_ (SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KEY)

REV 0



# RES SURVEY LOG SHEET

FORM NO SSL-1

RWP NO. \_\_\_\_\_  
 RPOP-5 \_\_\_\_\_  
 \_\_\_\_\_

SURVEY NO. \_\_\_\_\_

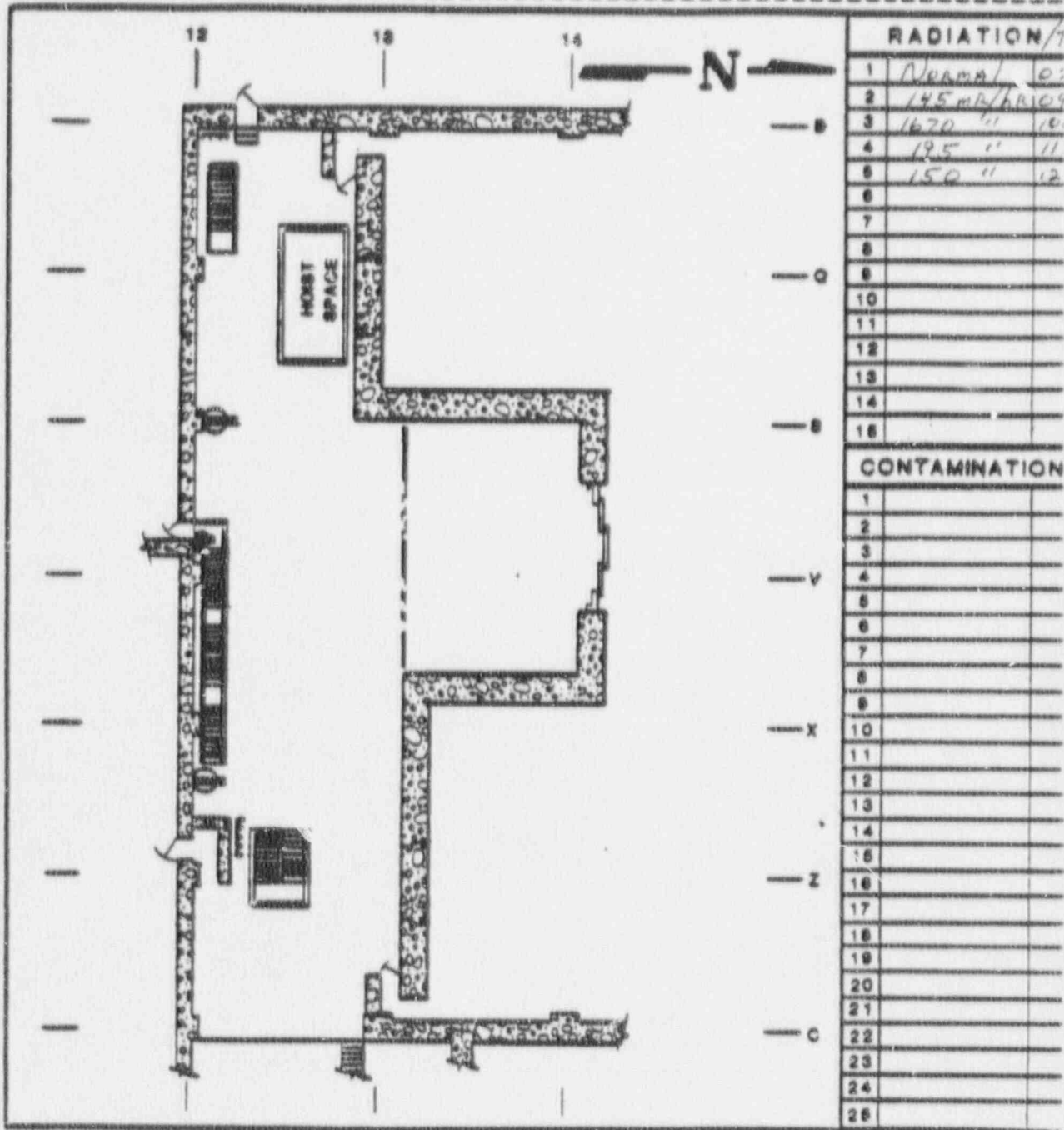
BUILDING / ELEVATION TB 300-4 \_\_\_\_\_

DATE \_\_\_\_\_

SYSTEM & COMPONENT ID / ELEVATION \_\_\_\_\_

DESCRIPTION / COMMENT \_\_\_\_\_

TIME \_\_\_\_\_



AIRBORNE SURVEY

AIR SAMPLER SERIAL NO'S. \_\_\_\_\_

AIR SAMPLE RESULTS: \_\_\_\_\_

(% EFFECTIVE MPC)

SURVEYOR(S) \_\_\_\_\_

EXPOSURE \_\_\_\_\_

(mR)

REVIEW \_\_\_\_\_

(SIGNATURE)

(SIGNATURE)(S)

(SEE OTHER SIDE FOR INSTRUMENT DATA & SURVEY LOG KE

REV 0

SECTION 7

James A. FitzPatrick Nuclear Power Plant  
1990 Partial Scale Emergency Exercise

December 19, 1990

Chemistry Data

## SECTION 7

Table 1

SMALL VOLUME  
REACTOR WATER RADIATION LEVELS (1)

| Time            | Dose Rates (mR/hr)                                                             |
|-----------------|--------------------------------------------------------------------------------|
| Entire<br>Drill | Normal<br><u>Sink</u><br>Contact: 30<br>@ 1 ft.: 5<br>@ 2 ft.: 2<br>@ 3 ft.: 1 |

(1) Data to be provided to Sample Team Member if the sink is operated.

## SECTION 7

Table 2

REACTOR COOLANT ACTIVITY DATA ( $\mu\text{Ci/g}$ )

(Entire Exercise)

---

|         |        |
|---------|--------|
| I-131   | 4.8E-2 |
| I-132   | 8.5E-3 |
| I-133   | 7.1E-3 |
| I-134   | 1.1E-2 |
| I-135   | 1.2E-2 |
| Kr-83m  | 8.2E-1 |
| Kr-85   | 1.7E-1 |
| Kr-85m  | 3.1E+0 |
| Kr-87   | 1.2E+0 |
| Kr-88   | 8.4E+0 |
| Xe-131  | 1.1E-3 |
| Xe-133  | 3.1E-1 |
| Xe-133m | 1.1E-2 |
| Xe-135  | 6.1E-2 |
| Xe-135m | 4.2E-2 |
| Xe-138  | 1.2E-3 |
| Cs-137  | 3.1E-2 |

SECTION 7

James A. FitzPatrick Nuclear Power Plant  
1990 Partial Scale Emergency Exercise

December 19, 1990

Offsite Radiological Data

The following Turbine Building Vent Radiation Monitor readings and dose rate maps are based on a simulated atmospheric release of approximately 4 Ci/sec out the Turbine Building vent.

On the day of the exercise, actual meteorology will be used. An example of a similar release under real time meteorology can be seen in Section 3 of this scenario.



## SECTION 7

TURBINE BUILDING  
VENT RADIATION MONITORS

| <u>Time</u> | <u>Vent Flow</u> | <u>Monitor Reading</u> |                   |
|-------------|------------------|------------------------|-------------------|
|             |                  | <u>Low Range</u>       | <u>High Range</u> |
| 0700        | 70,000 cfm       | 70 cpm                 | 0 mR/hr           |
| 0715        | 70,000 cfm       | 70 cpm                 | 0 mR/hr           |
| 0730        | 70,000 cfm       | 70 cpm                 | 0 mR/hr           |
| 0745        | 70,000 cfm       | 70 cpm                 | 0 mR/hr           |
| 0800        | 70,000 cfm       | 70 cpm                 | 0 mR/hr           |
| 0815        | 0                | 70 cpm                 | 0 mR/hr           |
| 0830        | 0                | 70 cpm                 | 0 mR/hr           |
| 0845        | 0                | 70 cpm                 | 0.1 mR/hr         |
| 0900        | 0                | 70 cpm                 | 0.2 mR/hr         |
| 0915        | 0                | 70 cpm                 | 0.25 mR/hr        |
| 0930        | 70,000 cfm*      | Offscale               | 0.27 mR/hr        |
| 0945        | 70,000 cfm       | Offscale               | 0.26 mR/hr        |
| 1000        | 70,000 cfm       | Offscale               | 0.27 mR/hr        |
| 1015        | 70,000 cfm       | Offscale               | 0.27 mR/hr        |
| 1030        | 70,000 cfm       | Offscale               | 0.25 mR/hr        |
| 1045        | 70,000 cfm       | Offscale               | 0.26 mR/hr        |
| 1100        | 70,000 cfm       | Offscale               | 0.26 mR/hr        |
| 1115        | 70,000 cfm       | Offscale               | 0.23 mR/hr        |
| 1130        | 70,000 cfm       | Offscale               | 0.20 mR/hr        |
| 1145        | 70,000 cfm       | 600,000 cpm            | 0.1 mR/hr         |
| 1200        | 70,000 cfm       | 50,000 cpm             | 0 mR/hr           |

\*Assuming building ventilation unisolated and exhaust fans started.

## SECTION 7

OFFSITE  
AIR SAMPLE DATA

Conc. ( $\mu\text{Ci/cc}$ )  
for Various Dose Rate Readings (mR/hr)

| NUCLIDE    | 1-10    | 11-20   | 21-50   | 51-100  | 101-200 |
|------------|---------|---------|---------|---------|---------|
| Kr-85      | 8.4E-09 | 8.4E-08 | 2.5E-07 | 4.0E-07 | 1.2E-06 |
| Kr-85m     | 8.4E-08 | 8.4E-07 | 2.5E-06 | 4.0E-06 | 1.2E-05 |
| Kr-87      | 1.5E-07 | 1.5E-06 | 4.3E-06 | 7.0E-06 | 2.1E-05 |
| Kr-88      | 2.1E-07 | 2.1E-06 | 6.2E-06 | 1.0E-05 | 3.0E-05 |
| Xe-131m    | 2.5E-07 | 2.5E-06 | 7.4E-06 | 1.2E-05 | 3.0E-05 |
| Xe-133     | 7.8E-07 | 7.8E-06 | 2.3E-08 | 3.7E-05 | 3.6E-05 |
| Xe-133m    | 1.1E-07 | 1.0E-06 | 3.1E-09 | 5.0E-06 | 1.1E-04 |
| Xe-135     | 8.4E-08 | 8.4E-07 | 2.5E-09 | 4.0E-09 | 1.5E-05 |
| Xe-135m    | 1.3E-07 | 1.3E-06 | 3.7E-09 | 6.0E-09 | 1.3E-05 |
| I-131      | 8.4E-11 | 8.4E-10 | 2.5E-09 | 4.0E-09 | 1.8E-08 |
| I-133      | 1.2E-10 | 1.2E-09 | 3.5E-09 | 5.7E-09 | 1.7E-08 |
| I-135      | 7.1E-11 | 7.1E-10 | 2.1E-09 | 3.4E-09 | 1.0E-08 |
| TOT. CONC. | 1.8E-06 | 1.8E-05 | 5.3E-05 | 8.5E-5  | 2.6E-04 |

Part.  
Count Rate  
(cpm)

0                      5                      15                      20                      75

I  
Count Rate  
(cpm)

5                      45                      135                      210                      750

NOTE: Information on this sheet is for controller use only. This page will not be handed to drill players.

Deposition increase due to precipitation.

- 1 - Light rain, drizzle or snow flurries = no change in data
- 2 - Moderate rain or snow = multiply data by 1.1
- 3 - Heavy rain or snow = multiply data by 1.3

Reference: Slade, D.H. "Meteorology and Atomic Energy," 1968.

SECTION 7

RELEASE DOSE RATES

| <u>Time</u>  | <u>Red(A)</u> | <u>Green(B)</u> | <u>Blue(C)</u> |
|--------------|---------------|-----------------|----------------|
| 0930 to 1130 | 28            | 2.8             | 1              |

Doses are OPEN WINDOW, edge of Isopleth

Linear interpretation to be used for areas enclosed in Isopleth.

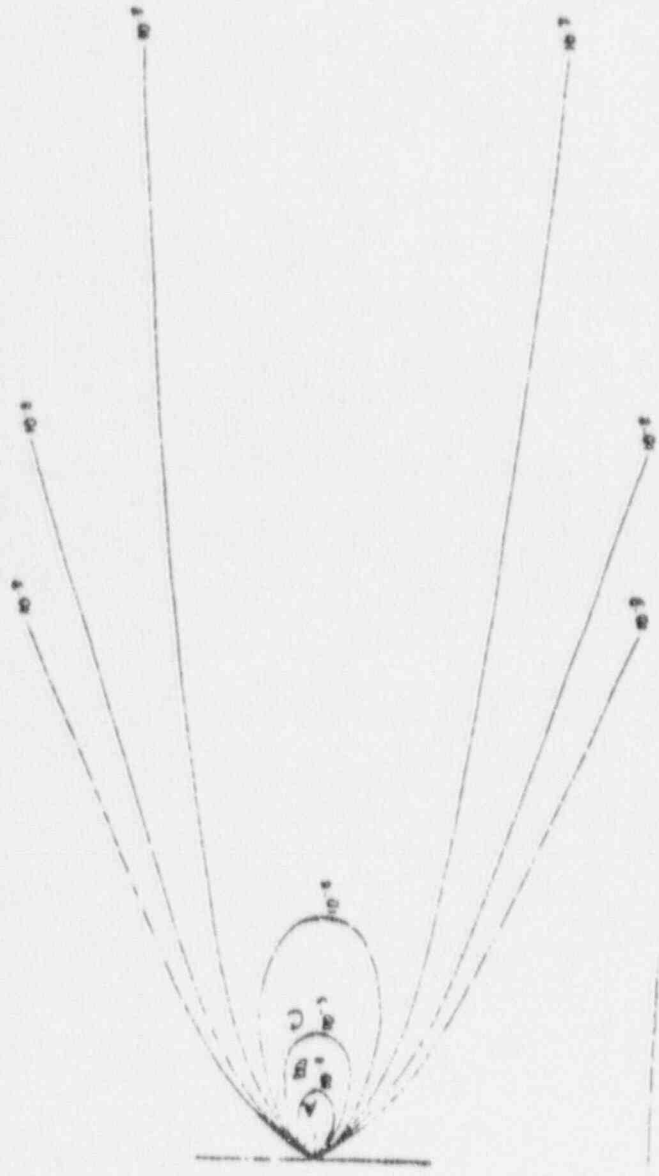
CLOSED WINDOW = 1/2 OPEN WINDOW

FLUME ARRIVAL TIMES

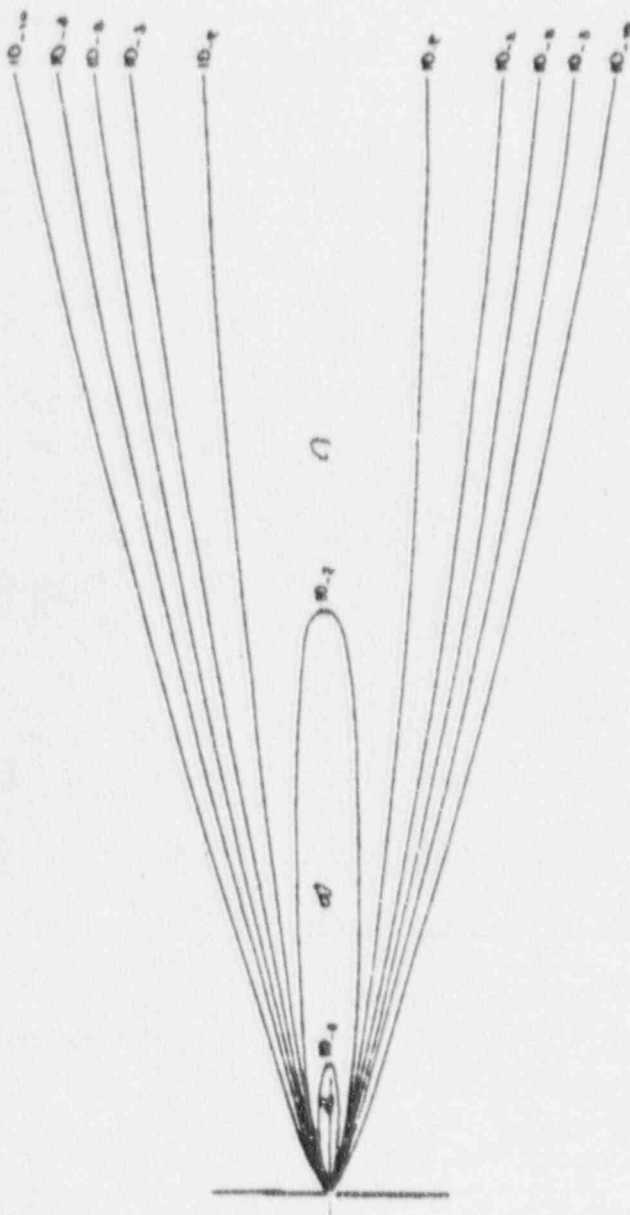
| WIND SPEED* | TIME |      |     |      |     |      |     |      |     |      |     |      |     |      |     | Minutes |     |
|-------------|------|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|---------|-----|
|             | 15   | 20   | 45  | 60   | 75  | 90   | 105 | 120  | 135 | 150  | 165 | 180  | 195 | 210  | 225 |         | 240 |
| M/S         |      |      |     |      |     |      |     |      |     |      |     |      |     |      |     |         |     |
| MPH         |      |      |     |      |     |      |     |      |     |      |     |      |     |      |     |         |     |
| 0.5         | 1.0  | 0.25 | 0.5 | 0.75 | 1.0 | 1.25 | 1.5 | 1.75 | 2.0 | 2.25 | 2.5 | 2.75 | 3.0 | 3.25 | 3.5 | 3.75    | 4   |
| 1.1         | 2.5  | 0.6  | 1.3 | 1.9  | 2.5 | 3.1  | 3.8 | 4.4  | 5.0 | 5.6  | 6.3 | 6.9  | 7.5 | 8.1  | 8.8 | 9.4     | 10  |
| 2.3         | 5.0  | 1.3  | 2.5 | 3.8  | 5.0 | 6.3  | 7.5 | 8.8  | 10  | >10  |     |      |     |      |     |         |     |
| 3.4         | 7.5  | 1.9  | 3.8 | 5.6  | 7.5 | 9.4  | >10 |      |     |      |     |      |     |      |     |         |     |
| 4.5         | 10.0 | 2.5  | 5.0 | 7.5  | 10  | >10  |     |      |     |      |     |      |     |      |     |         |     |
| 5.7         | 12.5 | 3.1  | 6.3 | 9.4  | >10 |      |     |      |     |      |     |      |     |      |     |         |     |
| 6.8         | 15.0 | 3.8  | 7.5 | >10  |     |      |     |      |     |      |     |      |     |      |     |         |     |
| 8.0         | 17.5 | 4.4  | 8.8 | >10  |     |      |     |      |     |      |     |      |     |      |     |         |     |
| 9.1         | 20.0 | 5.0  | 10  | >10  |     |      |     |      |     |      |     |      |     |      |     |         |     |
| 10.2        | 22.5 | 5.6  | >10 |      |     |      |     |      |     |      |     |      |     |      |     |         |     |
| 11.4        | 25.0 | 6.3  | >10 |      |     |      |     |      |     |      |     |      |     |      |     |         |     |
| 12.5        | 27.5 | 6.4  | >10 |      |     |      |     |      |     |      |     |      |     |      |     |         |     |
| 13.6        | 30.0 | 7.5  | >10 |      |     |      |     |      |     |      |     |      |     |      |     |         |     |

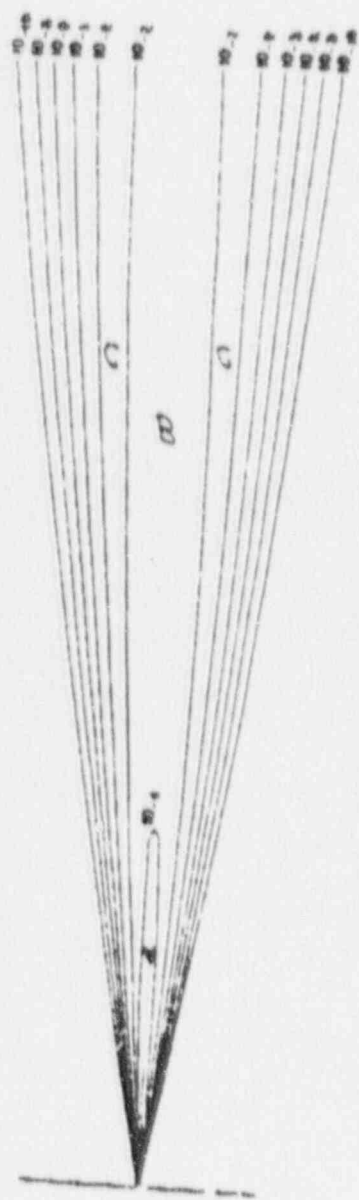
Distance  
Downwind  
(miles)

\*Intermediate wind speeds to be interpolated

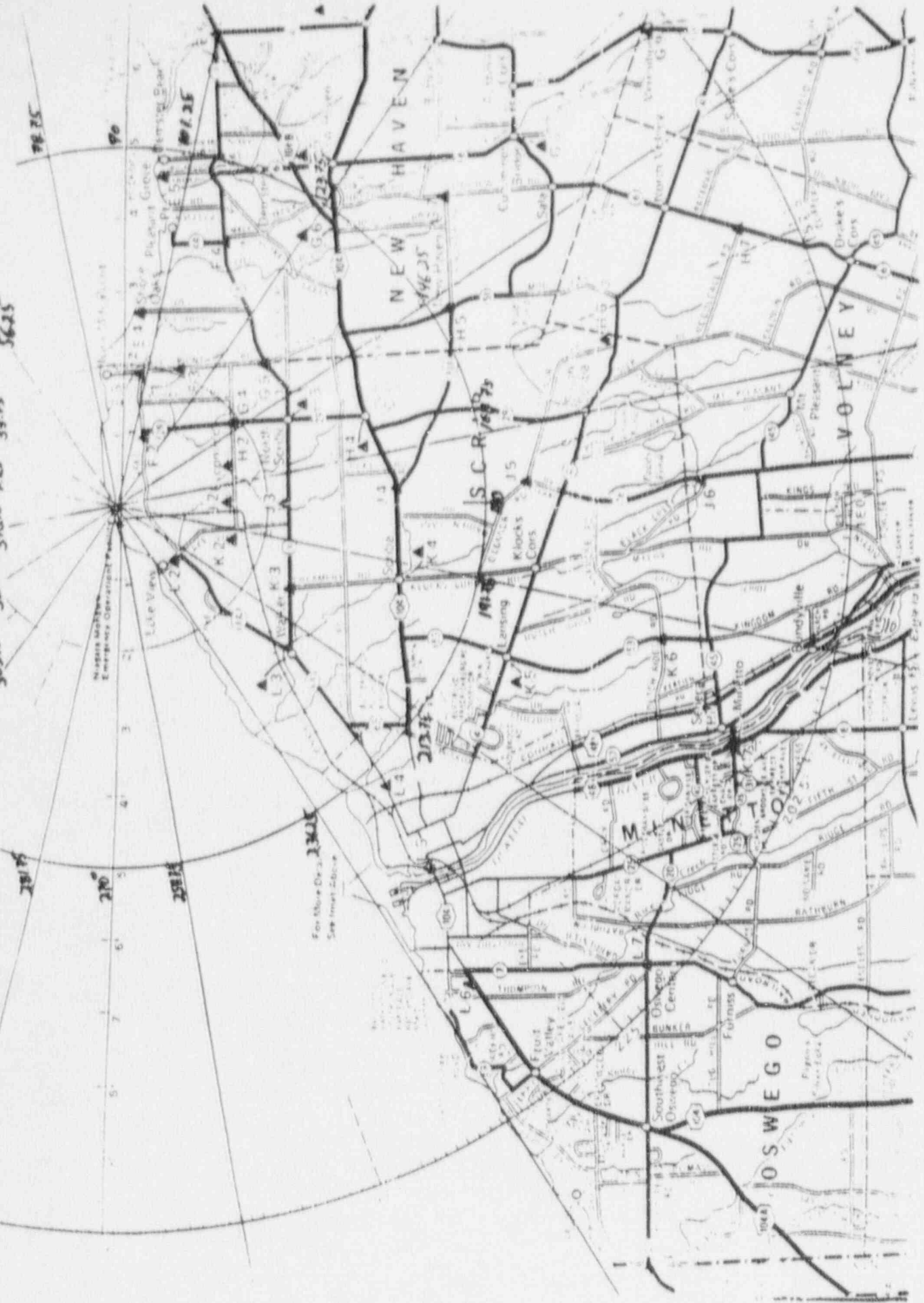








3037. 32625 54835 R25 3375 5635



For More Details See Inset Above

Nashua Mall  
Emergency Operations Center

NEW HAVEN

VOLNEY

MANTONVILLE

OSWEGO

3037

32625

54835

3037

32625

54835

R25

3375

5635

3037

32625

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32625

54835

R25

3375

5635

N  
—

5  
5 10 5 5  
5 10 5  
10 5  
5

After 0930, all readings  
are mR/hr and open window.  
closed window = ½ open window

N

E

PROPERTY FRONT (SEE SCALE BAR)

315°

315°

300°

285°

W 270°

255°

240°

225°

210°

195°

S 180°

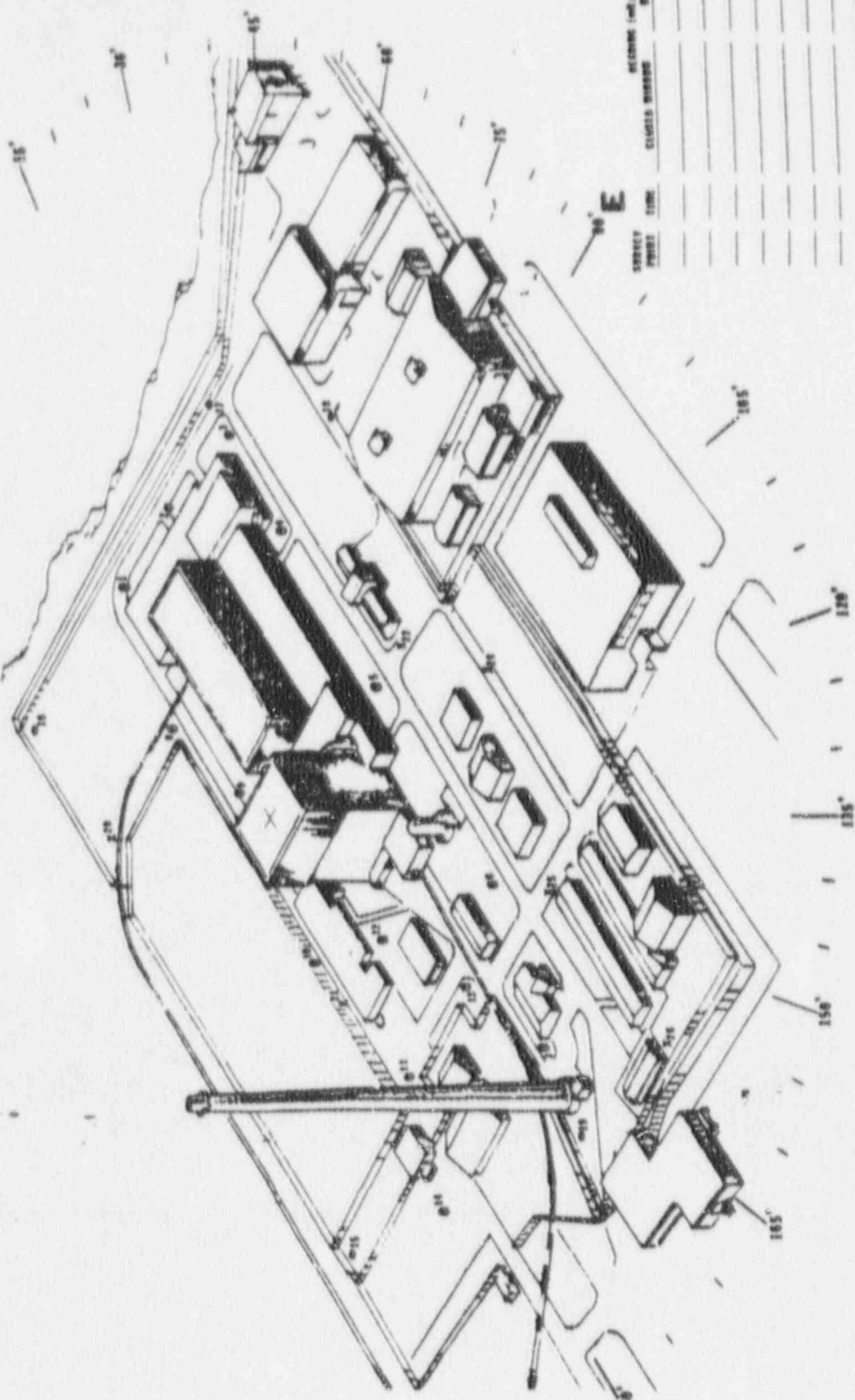
165°

150°

135°

120°

105°



LEGEND  
 ◉ FIRE STATION MARK  
 — OBSERVATION CENTER  
 \* OPERATIONAL SUPPORT POINT

EMERGENCY PLANNING MAP NO. 1

1-12 5-1-58



SECTION 8

James A. FitzPatrick Nuclear Power Plant  
1990 Partial Scale Emergency Exercise

December 19, 1990

ANTICIPATED ACTIONS

- I. Control Room
- II. Technical Support Center
- III. Operational Support Center
- IV. Emergency Operations Facility

| <u>Event</u>                   | <u>Time</u>  | <u>Control Room</u>                                                                                                  | <u>Tech. Support Ctr.</u> | <u>Oper. Support Ctr.</u> | <u>Emerg. Ops. Fac.</u> |
|--------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------|-------------------------|
| 1. Stuck control rod           | 0700 to 0730 | 1. Actions in accordance with AOP-24.<br>2. Recognize 24-hour LCO requirement.<br>3. Classify <u>UNUSUAL EVENT</u> . | None                      | None                      | None                    |
| 2. Loss of 115KV reserve power | 0730 to 0930 | 1. Contact Niagara Mohawk and request emergency restoration of power.<br>2. Actions in accordance with AOP's.        | None                      | None                      | None                    |

| <u>Event</u>                                      | <u>Time</u> | <u>Control Room</u>                                                                                                                                                                                                                 | <u>Tech. Support Ctr.</u>                                                                                                                                      | <u>Oper. Support Ctr.</u>                                                                                    | <u>Emerg. Ops. Fac.</u>                                                                                                                                                     |
|---------------------------------------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3. Scram with break in Main Steam Line Drain Pipe | 0800        | <ol style="list-style-type: none"> <li>1. Actions in accordance with EOP's and AOP's to stabilize plant.</li> <li>2. Classify <u>SITE AREA EMERGENCY</u> based on steam line break.</li> <li>3. Notify offsite agencies.</li> </ol> | <ol style="list-style-type: none"> <li>1. Determine source of break and rate of leakage.</li> <li>2. Determine appropriate mitigating actions.</li> </ol>      | <ol style="list-style-type: none"> <li>1. Work with engineers on implementing corrective actions.</li> </ol> | <ol style="list-style-type: none"> <li>1. Perform dose projections.</li> <li>2. Recommend protective actions.</li> <li>3. Relieve TSC of offsite communications.</li> </ol> |
| 4. Hydrogen Explosion                             | 0930        | <ol style="list-style-type: none"> <li>1. Actions in accordance with EOP's and AOP's to stabilize plant.</li> </ol>                                                                                                                 | <ol style="list-style-type: none"> <li>1. Assess potential damage due to explosion.</li> <li>2. Continue efforts to mitigate accident consequences.</li> </ol> | <ol style="list-style-type: none"> <li>1. Work with engineers on implementing corrective actions.</li> </ol> | <ol style="list-style-type: none"> <li>1. Perform dose projections.</li> <li>2. Recommend protective actions.</li> <li>3. Relieve TSC of offsite communications.</li> </ol> |

SECTION 9

James A. FitzPatrick Nuclear Power Plant  
1990 Partial Scale Emergency Exercise

December 19, 1990

METHOD OF EVALUATION

I. SAP-6 "Drill/Exercise Conduct"

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


EMERGENCY PLAN VOLUME 3

PROCEDURE NO.: SAP-6

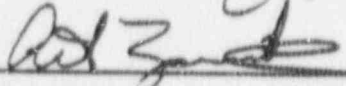
TITLE: DRILL/EXERCISE CONDUCT\*

PORC REVIEW NO.: Meeting No. 89-48 Date 8-16-89

APPROVED BY:

  
 \_\_\_\_\_  
 Resident Manager

APPROVED BY:

  
 \_\_\_\_\_  
 Emergency Planning Coordinator

|          |    |    |    |    |    |    |    |    |    |    |
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Date: 08/89



# EMERGENCY PLAN IMPLEMENTING PROCEDURE

SAP-6

## DRILL/EXERCISE CONDUCT\*

### 1.0 PURPOSE

To establish a procedure for the conduct and evaluation of all Emergency Plan Drills and Exercises at JAFNPP. This procedure also outlines the management controls used to ensure that corrective actions are implemented.

### 2.0 REFERENCES

- 2.1 NUREG-0654 - "Criteria for the Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants".
- 2.2 JAFNPP Emergency Plan and Implementing Procedures, Volumes 1, 2 and 3.
- 2.3 SAP-1 MAINTAINING EMERGENCY PREPAREDNESS\*
- 2.4 Administrative Procedure 6.2 PROCEDURE FOR CONTROL & DISTRIBUTION OF THE EMERGENCY PLAN & IMPLEMENTING PROCEDURES\*

### 3.0 INITIATING EVENTS

Not Applicable.

### 4.0 PROCEDURE

- 4.1 Drill Conduct is discussed in Section 5 of this procedure. This section delineates the minimum acceptable activity for a drill at JAFNPP.
- 4.2 Exercise Conduct is discussed in Section 6 of this procedure. This section delineates the minimum acceptable activity for an exercise at JAFNPP.
- 4.3 Observer Conduct is discussed in Section 7 of this procedure. This section specifies the minimum acceptable, preparation, training and response required for an observer of a JAFNPP drill or exercise.
- 4.4 Critiques and Corrective Actions are discussed in Section 8 of this procedure. This section specifies the method in which problems with Emergency Preparedness at JAFNPP are handled.

5.0 DRILL CONDUCT

- 5.1 Drills shall be directed with the frequency established by SAP-1 - MAINTAINING EMERGENCY PREPAREDNESS.
- 5.2 Drills shall be directed by a Lead Controller who shall be responsible for conducting the drill in accordance with the drill scenario and the drill report.
- 5.2.1 The Lead Controller may conduct a briefing with drill participants. The intent of such a briefing would be to insure that drill participants understand their function and purpose in the drill.
- 5.2.2 The Lead Controller may delegate controller responsibilities to other individuals. Controllers and observers can be used for this purpose. A controller shall be called such when that individuals sole responsibility is to assist in the conduct of a drill. An observer can function as a controller when assigned the task of providing information or instruction during a certain aspect of a drill.
- 5.2.3 The Lead Controller shall insure that plant safety is not compromised by a drill, and may stop a drill at any time if in his opinion plant safety may be affected.
- 5.2.4 The Lead Controller shall attempt to collect the signatures of as many participants as possible for training documentation. This responsibility can be delegated to other controllers, or observers.
- 5.2.5 The Lead Controller shall commence and end the Drill, upon approval from the JAFNPP Resident Manager.
- 5.2.6 The Lead Controller shall ensure that drill observers are stationed to properly observe the drill.
- 5.3 During a drill, when (public address system) announcements are made, those announcements shall be prefaced or followed by the words "This is a Drill".
- 5.4 During a drill when contacting any offsite or non-NYPA institution, the individual shall insure that the organization fully realizes that no emergency exists onsite and that it is a test of the JAFNPP Emergency Plan.

- 5.5 Drills shall be conducted using the guidance established by Form SAP-6.1 "Drill Conduct Checklist".
- 5.6 The Emergency Planning Coordinator shall conduct an observer meeting prior to a drill. The meeting shall be to inform the observers of their specific tasks.

6.0 EXERCISE CONDUCT

An Exercise shall include all items specified for a drill with the following differences:

- 6.1 Exercises shall be conducted with the frequency established by SAP-1 - MAINTAINING EMERGENCY PREPAREDNESS.
- 6.2 A Lead Controller stationed in the Control Room shall be responsible for conducting the exercise in accordance with the written scenario. As a minimum, controllers shall also be present in the Technical Support Center, Operational Support Center, and the Emergency Operations Facility.
- 6.3 Every attempt should be made to include Federal, State and local input into the development of the exercise scenario.
  - 6.3.1 The Exercise scenario shall be developed by a committee headed and organized by the Emergency Planning Coordinator at JAFNPP.

7.0 OBSERVER CONDUCT

- 7.1 Observers shall be used to record all significant events and the time at which they occur during a drill or exercise using Form SAP-6.2 "Evaluation Form". The drill or exercise scenario shall state the objectives of the drill or exercise which will determine the major areas for the observers to concentrate their observation. Actions to be observed include: the ability to control the emergency, timely and proper notification, availability and use of equipment and personnel for control and recovery, assessment of consequences of the emergency actions taken by emergency personnel, and the necessity for off-shift notifications.
- 7.2 Observers shall be selected with the concurrence of the Superintendent of Power.

- 7.3 There shall be enough observers to match all points specified in the drill/exercise scenario or drill form (SAP-1.2). The degree of observation shall be made based on the extent of the drill or scenario. As a general rule, however, observers shall be stationed to observe all expected major actions of the drill expected and as listed in objectives statement of the drill or exercise scenario. As a general rule of thumb, an observer shall be available at a ratio of one observer to each five participants. (With the exception of Plant accountability drills.) At least two observers must be available for drills and at least eight observers for an exercise.
- 7.4 In plant observers shall be badged following normal plant badging procedures, and are required to contact security during any accountability drills or exercises to identify themselves and their location.
- 7.5 Observers shall be visibly identified as observers, and they should take no part in the action of the drill or exercise except to:
- 7.5.1 Indicate simulated conditions to the exercise or drill participants, (e.g., survey meter readings, contamination levels, etc.), but only after instructions by the lead controller or individual acting on behalf of lead controller.
  - 7.5.2 Observe poor communication techniques and procedures and note/correct such occurrences when they occur.
  - 7.5.3 Prevent the communication of simulated emergency conditions as actual conditions outside of the exercise or drill area and to ensure that radio or telephone messages are periodically preceded and ended by the statement "This is a Drill".
  - 7.5.4 Prevent actions which might create a hazard to personnel or equipment. In such cases, observers shall require personnel participating in the exercise or drill to indicate the action verbally.
- 7.6 Observers shall be briefed as to their duties prior to the commencement of the drill or exercise. Drill observers should be briefed within 24-hours of the commencement of a drill. Exercise observers should be briefed within 24 hours of the commencement of an exercise and written aids and procedures shall be provided for use by the observers. This 24-hour time frame may be adjusted to compensate for unannounced exercises.



- 7.7 Training shall be provided to observers by the JAFNPP Training Department. The training provided for observers will entail the briefing listed in Section 7.6. The briefing shall include a review of the drill or exercise scenario, the observer duties with regard to the assigned areas of observation, and the key points to be noted. The Emergency Planning Coordinator shall provide the JAFNPP Training Department with a list of observers to be trained seven (7) days in advance of drill or exercise. Exceptions to the qualified observer list may be made by the Emergency Planning Coordinator. The exception shall be noted in a memorandum detailing why the exception was being made.
- 7.8 At the conclusion of the drill or exercise, the Emergency Planning Coordinator or the Fire Protection Supervisor shall collect the completed "Evaluation Forms" (SAP-6.2), compile a list of participants and conduct a critique with the observers.
- 7.9 Observers shall familiarize themselves with the duties and action requirements of the personnel they are monitoring. The Drill Report SAP-1.2 shall list Observers' Name, Organization, Area of Responsibility, and Reference Procedures. Observers shall review referenced procedures. Observers shall use the following as guidelines.

7.9.1 Control Room

The observer shall observe the action of personnel assigned to the Control Room and personnel who report to the Control Room for assignment. In addition, special attention will be given to the following.

- Use of map and overlays.
- Notifications to onsite personnel and offsite agencies.
- Request for the call-in of off duty personnel.
- Operations handling of accident conditions.
- Instructions given to Search and Rescue, Repair and Corrective Action Teams and H.P. Tech's by the Shift Supervisor (SS), as applicable.
- Does the SS handle the emergency by directing people or by trying to do the work himself?



- Are the time frames of actions by the SS reasonable enough?
- Actions of personnel in the Control Room.
- Communications with the EOF.
- Communications with the TSC.
- Actions of the STA.

7.9.2 Control Point

It is to be noted that all normal practices such as sign out and use of frisker and the portal monitor are to be accomplished unless the H.P. Technician gives other directions because of radiological conditions. The observer will pay special attention to the above along with the following.

- No one is wearing radiological protection clothing when leaving.
- All alarms from monitoring equipment are acknowledged.

7.9.3 Assembly Area

Observe the following for assembly area personnel:

- They seek out their assembly area, generally stay together as a group and remain orderly.
- Time of assembly and completed accountability.

7.9.4 Emergency Operation Facility

This is the command post for the Emergency and it should seem so to the observer. Look for the following things:

- The Emergency Director is in command of the EOF.
- Any extra personnel, spectators and those awaiting orders, are quietly standing out of the way.
- The Emergency Director has assigned personnel to various functions, i.e., Communications, Radiological Assessment.

- Has the Emergency Director contacted the Operations Coordinator?
- The Radiation Protection or Support Personnel are performing duties in an efficient manner and reporting results to the Emergency Director.
- Instrumentation deployed in the EOF is placed in a non-interfering position.
- How problems with the radio and telephone are handled.
- Using time as criteria, release rates and thyroid and whole body exposures to the offsite population are calculated quickly after the receipt of data from the Control Room or the Offsite Monitoring Team(s).
- The time frame of updates to offsite agencies and the reporting of exposure data and changes to site meteorological conditions, to those same agencies.
- The Emergency Director assigns, where possible, the duty of making routine calls to someone else thereby leaving himself free to command the action.
- Assessment Teams methods to make protective actions to offsite populations.

7.9.5 Off-Site Monitoring Teams

The observers shall observe the following items:

- Received KI dose, if necessary.
- Operational check performed on survey instruments, sample counter and sample pump before leaving the site.
- Equipment check off performed.
- Assignment of TLD's and dosimeters before leaving the site.
- Silver Zeolite Cartridges made available before leaving the site.
- Survey instrument operationally checked out and turned on prior to leaving to take field readings.

- Radio check out by communicating to EOF or TSC before leaving.
- Beta and gamma field surveys performed on the way to sample point.
- Sampling and field surveys performed at sample location.
- Instrument calibration performed and samples counted.
- Work performed in a professional manner.

7.9.6 On-Site Monitoring Team

On-site monitoring teams may be assigned field survey work along the perimeter of the site. Check on the following items:

- Where do they receive their instructions?
- Dosimeter and film badge are being worn.
- What type of survey instruments used.
- Do they pick up a portable radio with survey kit?
- Radio check performed.
- Field readings taken along the route to the designated area.
- Work performed in a professional manner.

7.9.7 Security Force

- Are all security personnel accounted for?
- Does security direct people to the nearest assembly area for accountability?
- Are access and egress roads blocked off?

7.9.8 Technical Support Center

- The area maintained as a controlled area.
- Are communications initiated?
- Are H.P. Surveys performed and by whom?

- 7.9.9 Operations Support Center
- How is it staffed?
  - What and how many teams are brought to the OSC?
  - Are phones continuously manned?
  - Are H.P. Surveys performed and by whom?
- 7.9.10 Radiation Protection Office
- Do they report to the Radiation Protection Office when an Evacuation Alarm Sounds?
  - Do they receive instructions from whom?
  - Are accurate protective measures taken if an entry into the controlled area is required?
  - Who are survey results reported to? (CR and/or EOF)
- 7.9.11 Fire Brigade
- Do they receive instructions and from whom?
  - Are protective measures taken if an entry into a controlled are is required?
  - Are Fire preplans consulted?
  - Is assistance requested from local support fire departments?

## 8.0 CRITIQUES AND CORRECTIVE ACTIONS

### 8.1 Critique

A post exercise/drill critique should be held for observers and plant supervision by the Emergency Planning Coordinator. The critique should be held within 24 hours of the drill/exercise, at a time and place specified by the Emergency Planning Coordinator. This meeting shall be held to help resolve questions raised by various observers and plant supervisors and to develop a list of corrective actions as necessary. The observations should include those actions noted by the observers which were not in accordance with approved procedures. In addition, the exercise drill observers should identify any areas which require clarification, development or revision of procedures.



## 8.2 Emergency Plan Corrective Action Report

Following the critique, the Emergency Planning Coordinator shall develop a list of required Corrective Actions as identified at this critique. The required Corrective Actions shall be documented on SAP-6.3 "Emergency Plan Corrective Action Report". In addition to the items requiring corrective action identified at the critique, any additional items as identified on the SAP-6.2 "Evaluation Form" or through routine surveillances shall be detailed on SAP-6.3.

## 8.3 Review

Following the preparation of the Emergency Plan Corrective Action Reports, the Superintendent of Power shall review the contents of the reports.

8.3.1 The Superintendent of Power shall review and approve the final recommended corrective action to be taken, the individual assigned responsibility to complete the recommended corrective action, and the recommended completion dates.

8.3.2 Upon approval of the recommendations included in the Emergency Plan Corrective Action Report, the approved report shall be returned to the Emergency Planning Coordinator. The EPC shall then prepare SAP-6.4 "Emergency Plan Corrective Action Log". This log shall be used for work tracking associated with the Emergency Plan Corrective Actions.

## 8.4 Close Out

8.4.1 Each individual assigned responsibility to complete the recommended corrective action shall be sent a copy of each form SAP-6.3 that has been assigned to that individual. The action addresses shall resolve the problem, indicate on the form the final corrective action taken, sign and date it, and forward it to the Emergency Planning Coordinator.

8.4.2 In the event that an action addressee cannot complete the final corrective actions by the date specified on form SAP-6.3, a formal request for an extension (by memorandum) shall be presented to the Superintendent of Power. The request shall include the circumstances or reasons that necessitate the extension and an estimated completion date. The Superintendent of Power upon receipt of an extension request, shall review its justifications and, either approve or reject the request.



8.4.3 For approved extensions, the Superintendent of Power shall assign a revised completion data, and inform the action addressee of the extension. Furthermore, the Emergency Planning Coordinator shall be directed to update the Emergency Plan Corrective Action Log, and file the request for extension. For rejected extensions, the action addressee shall be informed and the request forwarded to the Emergency Planning Coordinator.

8.4.4 The Emergency Planning Coordinator shall, after the preparation and review of an Emergency Plan Corrective Action Report, present the report(s) to the Plant Operating Review Committee (PORC). The PORC shall review the report(s). This review shall be incorporated into the PORC meeting minutes. The Emergency Planning Coordinator shall maintain the active file on Emergency Plan Corrective Action Reports. The JAFNPP Training Department shall maintain the file on training reports.

9.0 FIGURES, FORMS AND ATTACHMENTS

- 9.1 FORM SAP-6.1 Drill or Exercise Conduct Checklist
- 9.2 FORM SAP-6.2 Evaluation Form
- 9.3 FORM SAP-6.3 Emergency Plan Corrective Action Report
- 9.5 FORM SAP-6.4 Emerge. Plan Corrective Action Log

FORM SAP 6.1

DRILL OR EXERCISE CONDUCT CHECKLIST

- \_\_\_\_\_ 1. Prepare a drill or exercise scenario.
- \_\_\_\_\_ 2. Prepare a drill or exercise report.
- \_\_\_\_\_ 3. Present the drill or exercise to the Plant Operating Review Committee Representative for approval.
- \_\_\_\_\_ 4. Brief observers on the entire drill or exercise.
- \_\_\_\_\_ 5. Brief the individual observers on specified tasks.
- \_\_\_\_\_ 6. Issue Observer Aids and Drill/Exercise Observation Sheet.
- \_\_\_\_\_ 7. Initiate the drill or exercise.
- \_\_\_\_\_ 8. Ensure the "flow" of activity throughout the drill or exercise.
- \_\_\_\_\_ 9. Terminate the drill or exercise when it's purpose is accomplished.
- \_\_\_\_\_ 10. Conduct a critique with participants or observers.
- \_\_\_\_\_ 11. Collect Drill/Exercise Observation Sheets.
- \_\_\_\_\_ 12. Complete Emergency Plan Corrective Action Report, list all deficiencies and recommendations.
- \_\_\_\_\_ 13. Present the Emergency Plan Corrective Action Report to PORC.
- \_\_\_\_\_ 14. Complete action required on deficiencies.

EVALUATION FORM

| OBSERVER | CONTROLLER | LOCATION | DATE | REFERENCE PROCEDURES |
|----------|------------|----------|------|----------------------|
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OBJECTIVE 1: EMERGENCY CLASSIFICATION LEVELS

Demonstrate the ability to monitor, understand and use emergency classification levels (ECL) through the appropriate implementation of emergency functions and activities corresponding to ECL's as required by the scenario. The four ECL's are: Notification of Unusual Event, Alert, Site Area Emergency and General Emergency.

| NUREG REF | POINTS OF REVIEW                                                                                                                                                                                                                  | YES | NO | N/A | N/O |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|
| D.3       | 1. Did the organization declare appropriate emergency classification levels?                                                                                                                                                      | —   | —  | —   | —   |
| D.3       | 2. Were staff notified of ECL's?                                                                                                                                                                                                  | —   | —  | —   | —   |
| D.3       | 3. When was your location notified of the following ECL's?<br>[Specify the time staff were notified and not the time that the ECL was declared by the utility. Also, specify if these notifications were verified (if required).] | —   | —  | —   | —   |
|           | <u>ECL</u> <u>TIME NOTIFIED</u> <u>WERE NOTIFICATIONS VERIFIED? (IF REQUIRED)</u>                                                                                                                                                 |     |    |     |     |
|           | Notification of Unusual Event _____                                                                                                                                                                                               | —   | —  | —   | —   |
|           | Alert _____                                                                                                                                                                                                                       | —   | —  | —   | —   |
|           | Site Area Emergency _____                                                                                                                                                                                                         | —   | —  | —   | —   |
|           | General Emergency _____                                                                                                                                                                                                           | —   | —  | —   | —   |
| D.3       | 4. Were the ECL's prominently displayed?                                                                                                                                                                                          | —   | —  | —   | —   |
| D.4       |                                                                                                                                                                                                                                   | —   | —  | —   | —   |
| D.3       | 5. Were the staff aware of the current ECL?                                                                                                                                                                                       | —   | —  | —   | —   |

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| OBSERVER | CONTROLLER | LOCATION | DATE | REFERENCE PROCEDURES |
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OBJECTIVE 1: EMERGENCY CLASSIFICATION LEVELS

NUREG REF    POINTS OF REVIEW

D.3  
D.4

6. Were the relevant functions and activities implemented in a manner that is consistent with the organization's emergency plan and procedures?

YES    NO    N/A    N/O

If not, explain why the organization did not follow its emergency plan and procedures.

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| OBSERVER | CONTROLLER | LOCATION | DATE | REFERENCE PROCEDURES |
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EVALUATION: Objective 1 was:            met            not met

NARRATIVE SUMMARY: (Describe play of objective, including points of review)

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EVALUATION FORM

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OBJECTIVE 2: MOBILIZATION OF EMERGENCY PERSONNEL

Demonstrate the ability to fully alert, mobilize and activate personnel for both facility and field-based emergency functions.

NUREG REF POINTS OF REVIEW

YES NO N/A N/O

E.1 1. During what time period were calls/contacts made to notify offsite response organizations as required by the plan?

Start: \_\_\_\_\_ Completed: \_\_\_\_\_

Who made the calls/contacts? \_\_\_\_\_

E.1 2. What method(s) was used to notify organizations? \_\_\_\_\_

If a written call-list was used, were staff names and telephone numbers current and correct?

E.2 3. Were required staff alerted in a timely manner? \_\_\_\_\_

E.2 4. During what time period were facility staff activated/deployed?

Start: \_\_\_\_\_ Completed: \_\_\_\_\_

E.2 5. List all staff who were present at your location:

|       |       |       |
|-------|-------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
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| OBSERVER | CONTROLLER | LOCATION | DATE | REFERENCE PROCEDURES |
|----------|------------|----------|------|----------------------|

OBJECTIVE 2: MOBILIZATION OF EMERGENCY PERSONNEL

NUREG REF POINTS OF REVIEW

E.1 6. Were staff dispatched to other facilities or locations, if required? YES NO N/A N/O  
 E.2

If so, list these staff members and their time of dispatch.

STAFF                      TIME OF DISPATCH

|       |       |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

E.1 7. Were the relevant functions and activities implemented in a  
 E.2 manner that is consistent with the organization's emergency  
 plan and procedures?

If not, explain why the organization did not follow its  
 emergency plan and procedures:

\_\_\_\_\_

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| OBSERVER | CONTROLLER | LOCATION | DATE | REFERENCE PROCEDURES |
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EVALUATION: Objective 2 was:  met  not met

NARRATIVE SUMMARY: (Describe play of objective, including points of review)

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EVALUATION FORM

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| OBSERVER | CONTROLLER | LOCATION | DATE | REFERENCE PROCEDURES |
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OBJECTIVE 3: DIRECTION AND CONTROL

Demonstrate the ability to direct, coordinate and control emergency activities.

| NUREG REF      | POINTS OF REVIEW                                                                                                                                                                                                   | YES | NO | N/A | N/O |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|
| A.1.d          | 1. Was an individual effectively in charge of the emergency response?                                                                                                                                              | —   | —  | —   | —   |
| A.1.d          | 2. If so, name this individual:<br><br>_____                                                                                                                                                                       |     |    |     |     |
| A.1.b<br>A.2.a | 3. Were periodic briefings held, to update staff on situation?                                                                                                                                                     | —   | —  | —   | —   |
| A.1.b<br>A.2.a | 4. Were staff (as appropriate) involved in decision making?                                                                                                                                                        | —   | —  | —   | —   |
| A.1.b<br>A.2.a | 5. Was a copy of the plan available for reference?                                                                                                                                                                 | —   | —  | —   | —   |
| A.2.a          | 6. Were message logs kept for all incoming and outgoing messages and transmissions?<br><br>Were message reproduced and distributed, if appropriate?                                                                | —   | —  | —   | —   |
| A.2.a          | 7. Did the facility use an internal message-handling system?<br><br>If so, was information provided to staff in a prompt manner?<br><br>If so, was a record kept of internal messages through logs or file copies? | —   | —  | —   | —   |
| A.1.d          | 8. Were protective action decisions and implementation of these decisions coordinated effectively with all appropriate organizations?                                                                              | —   | —  | —   | —   |

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| OBSERVER | CONTROLLER | LOCATION | DATE | REFERENCE PROCEDURES |
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OBJECTIVE 3: DIRECTION AND CONTROL.

| NUREG REF | POINTS OF REVIEW | YES | NO | N/A | N/O |
|-----------|------------------|-----|----|-----|-----|
|-----------|------------------|-----|----|-----|-----|

|       |                                                                |  |  |  |  |
|-------|----------------------------------------------------------------|--|--|--|--|
| A.1.a | 9. Were the relevant functions and activities implemented in a |  |  |  |  |
| A.1.b | manner that is consistent with the organization's emergency    |  |  |  |  |
| A.1.d | plan and procedures?                                           |  |  |  |  |
| A.2.a |                                                                |  |  |  |  |

If not, explain why the organization did not follow its emergency plan and procedures:

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| OBSERVER | CONTROLLER | LOCATION | DATE | REFERENCE PROCEDURES |
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EVALUATION: Objective 3 was: \_\_\_ met \_\_\_ not met.

NARRATIVE SUMMARY: (Describe play of objective, including points of review)

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EVALUATION FORM

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| OBSERVER | CONTROLLER | LOCATION | DATE | REFERENCE PROCEDURES |
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OBJECTIVE 4: COMMUNICATIONS

Demonstrate ability to communicate with all appropriate locations, organizations, and field personnel.

NUREG REF POINTS OF REVIEW

YES NO N/A N/O

F.1.b  
F.1.d  
F.2

1. Identify communications systems demonstrated during the exercise:

- Commercial telephone. Specify number of lines available: \_\_\_\_\_
- Conferencing capability
- Cellular telephone in vehicle
- Radio system. Specify type of systems: \_\_\_\_\_
- Computer link. Describe system: \_\_\_\_\_
- Facsimile machine
- Other (specify) \_\_\_\_\_

F.1.b  
F.1.d  
F.2

2. Identify organizations that this facility had communication links with: \_\_\_\_\_

F.1.b

3. Were primary communications systems able to handle communication flow without undue delays?

F.1.b

4. What was the average delay for the primary communications system?

System

Average Delay (Minutes)

|       |       |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

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OBJECTIVE 4: COMMUNICATIONS

NUREG REF POINTS OF REVIEW

F.1.b  
F.1.d

5. Were backup systems demonstrated?

If so, did they function properly?

F.1.b  
F.1.d

6. Did any of the communications systems break down?

If so, describe the break downs with respect to what occurred; the primary or backup system; the length of time; impact on organizational functioning; steps taken to correct problem, and any use of a backup system:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

F.1.b  
F.1.d  
F.2

7. Were the relevant functions and activities implemented in a manner that is consistent with the organization's emergency plan and procedures?

If not, explain why the organization did not follow its emergency plan and procedures:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

YES NO N/A N/O

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
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EVALUATION: Objective 4 was:        met        not met

NARRATIVE SUMMARY: (Describe play of objective, including points of review.)

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EVALUATION FORM

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OBJECTIVE 5: FACILITIES, EQUIPMENT AND DISPLAYS

Demonstrate the adequacy of facilities, equipment, displays and other materials to support emergency operations.

NUREG REF    POINTS OF REVIEW    YES    NO    N/A    N/O

H.3    1. Were the following facility components sufficient to support emergency operations?    Sufficient

|  |                                        |     |     |     |     |
|--|----------------------------------------|-----|-----|-----|-----|
|  | a. Space                               | --- | --- | --- | --- |
|  | b. Furnishings                         | --- | --- | --- | --- |
|  | c. Lighting                            | --- | --- | --- | --- |
|  | d. Rest rooms                          | --- | --- | --- | --- |
|  | e. Ventilation                         | --- | --- | --- | --- |
|  | f. Backup power (if required per plan) | --- | --- | --- | --- |
|  | g. Other (specify) _____               | --- | --- | --- | --- |

H.3    2. Was the following equipment available (check if it was) and sufficient to support emergency operations?    Sufficient

Available Equipment

|  |                               |     |     |     |     |
|--|-------------------------------|-----|-----|-----|-----|
|  | _____ Typewriter              | --- | --- | --- | --- |
|  | _____ Computer/word processor | --- | --- | --- | --- |
|  | _____ Copier                  | --- | --- | --- | --- |
|  | _____ Kitchen supplies        | --- | --- | --- | --- |
|  | _____ Cots                    | --- | --- | --- | --- |
|  | _____ Other (specify) _____   | --- | --- | --- | --- |

If not, identify needs:

|  |       |     |     |     |     |
|--|-------|-----|-----|-----|-----|
|  | _____ | --- | --- | --- | --- |
|  | _____ | --- | --- | --- | --- |
|  | _____ | --- | --- | --- | --- |



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OBJECTIVE 5: FACILITIES, EQUIPMENT AND DISPLAYS

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| NUREG REF | POINTS OF REVIEW                                                                                                                             | YES | NO | N/A | N/O |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|
| H.3       | 3. Was access to the facility controlled?                                                                                                    | —   | —  | —   | —   |
| H.3       | 4. Identify maps which were used:                                                                                                            |     |    |     |     |
|           | <u>Maps</u>                                                                                                                                  |     |    |     |     |
|           | Plume EPZ with appropriate planning areas labeled                                                                                            | —   | —  | —   | —   |
|           | Evacuation Routes                                                                                                                            | —   | —  | —   | —   |
|           | Plume EPZ population by planning areas                                                                                                       | —   | —  | —   | —   |
|           | Relocation Centers                                                                                                                           | —   | —  | —   | —   |
|           | Radiological monitoring points                                                                                                               | —   | —  | —   | —   |
|           | Ingestion EPZ for agricultural information                                                                                                   | —   | —  | —   | —   |
|           | Other (specify) _____                                                                                                                        | —   | —  | —   | —   |
|           | _____                                                                                                                                        | —   | —  | —   | —   |
| H.3       | 5. Were status boards used and positioned for viewing by staff?                                                                              | —   | —  | —   | —   |
|           | If so, identify information placed on status boards:                                                                                         |     |    |     |     |
|           | <u>Provided on Status Boards</u>                                                                                                             |     |    |     |     |
|           | Emergency classification levels                                                                                                              | —   | —  | —   | —   |
|           | Protective action decisions                                                                                                                  | —   | —  | —   | —   |
|           | Weather data (actual and forecast)                                                                                                           | —   | —  | —   | —   |
|           | Other (specify) _____                                                                                                                        | —   | —  | —   | —   |
|           | _____                                                                                                                                        | —   | —  | —   | —   |
| H.3       | 6. Were status boards and displays updated in a timely manner (i.e., were they updated within 10 minutes of notification of status changes)? | —   | —  | —   | —   |

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OBJECTIVE 5: FACILITIES, EQUIPMENT AND DISPLAYS

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| NUREG REF                       | POINTS OF REVIEW                                                                                                                                                                                                                                                                                      | YES | NO | N/A | N/O |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|
| H.3<br>J.10.a<br>J.10.b<br>J.11 | 7. Were the relevant functions and activities addressed above implemented in a manner that is consistent with the organization's emergency plan and procedures?<br><br>If not, explain why the organization did not follow its emergency plan and procedures:<br><br>_____<br>_____<br>_____<br>_____ | —   | —  | —   | —   |

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EVALUATION: Objective 5 was: met met met

NARRATIVE SUMMARY: (Describe play of objective, including points of review)

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OBJECTIVE 6: EMERGENCY WORKER EXPOSURE CONTROL

Demonstrate the ability to continuously monitor and control emergency worker exposure.

| NUREG REF | POINTS OF REVIEW                                                                                                                                                                                                                                                                                          | YES | NO | N/A | N/O |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|
| K.3.a     | 1. Did each emergency worker who entered the plume EPZ have a non self-reading permanent record dosimeter?<br><br>If not, identify the reason why a permanent record dosimeter was not available to each emergency worker:<br>_____<br>_____<br>_____                                                     | —   | —  | —   | —   |
| K.3.a     | 2. Did each emergency worker who entered the plume EPZ have:<br>_____ (a) Two direct reading dosimeters with different ranges?<br><br>List the ranges of the two dosimeters:<br>#1 _____ #2 _____<br><br>OR:<br><br>_____ (b) One direct reading dosimeter?<br><br>List the range of the dosimeter: _____ | —   | —  | —   | —   |
| K.3.a     | 3. Did each team or group have access to a charger for the direct reading dosimeter?                                                                                                                                                                                                                      | —   | —  | —   | —   |
| K.3.b     | 4. Did each worker have an exposure record?                                                                                                                                                                                                                                                               | —   | —  | —   | —   |

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OBJECTIVE 6: EMERGENCY WORKER EXPOSURE CONTROL

NUREG REF POINTS OF REVIEW

| NUREG REF | POINTS OF REVIEW                                                                                                                                 | YES | NO | N/A | N/O |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|
| K.3.b     | 5. Were appropriate instructions issued?                                                                                                         | —   | —  | —   | —   |
| K.3.b     | 6. Were the dosimeters zeroed or the initial readings recorded?                                                                                  | —   | —  | —   | —   |
| K.3.b     | 7. Were the dosimeters read and the exposure recorded for each emergency worker?                                                                 | —   | —  | —   | —   |
| K.4       | 8. What exposure was authorized for the mission? _____                                                                                           | —   | —  | —   | —   |
| K.4       | 9. Did the emergency workers know who to contact for authorization to incur exposures in excess of the authorized mission exposure limit?        | —   | —  | —   | —   |
| K.3.b     | 10. Did each emergency worker know what to do if they received an exposure higher than authorized?                                               | —   | —  | —   | —   |
| K.3.a     | 11. Were the relevant functions and activities implemented in a manner that is consistent with the organization's emergency plan and procedures? | —   | —  | —   | —   |

If not, explain why the organization did not follow its emergency plan and procedures:

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EVALUATION: Objective 6 was:      met      not met

NARRATIVE SUMMARY: (Describe play of objective, including points of review)

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OBJECTIVE 7: FIELD RADIOLOGICAL MONITORING - AMBIENT RADIATION MONITORING

Demonstrate the appropriate equipment and procedures for determining field radiation measurements.

| NUREG REF   | POINTS OF REVIEW                                                                                                                                                         | YES | NO | N/A | N/O |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|
| I.8<br>I.11 | 1. Did the team have a survey instrument?<br><br>Was it the instrument specified in the plan?<br><br>If not, was it equivalent?                                          | —   | —  | —   | —   |
| I.8<br>I.11 | 2. Did the team have a high-range (greater than 0.05 rem/hour, survey instrument)?<br><br>Was it the instrument specified in the plan?<br><br>If not, was it equivalent? | —   | —  | —   | —   |
| I.8<br>I.11 | 3. Did the team have access to equipment spares?                                                                                                                         | —   | —  | —   | —   |
| I.8<br>I.11 | 4. Did they perform battery checks and source checks?<br><br>Was there evidence that the instruments were within their calibration period?                               | —   | —  | —   | —   |
| I.8<br>I.11 | 5. Were Gamma-only and Beta+Gamma readings made at both about 1 meter (waist level) and about 2 cm (near ground level)?                                                  | —   | —  | —   | —   |
| I.8<br>I.11 | 6. Did the team avoid contaminating instruments?                                                                                                                         | —   | —  | —   | —   |
| I.8<br>I.11 | 7. Were readings logged along with location, time and date?                                                                                                              | —   | —  | —   | —   |

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OBJECTIVE 7: FIELD RADIOLOGICAL MONITORING - AMBIENT RADIATION MONITORING

| NUREG REF           | POINTS OF REVIEW                                                                                                                                 | YES | NO | N/A | N/O |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|
| I.8<br>I.11         | 8. Was the team able to find and arrive at monitoring location promptly?                                                                         | —   | —  | —   | —   |
| I.8<br>I.11         | 9. Did the staff, in general, display adequate training and knowledge?                                                                           | —   | —  | —   | —   |
| I.8<br>I.11         | 10. Did the team transmit field readings to the appropriate location promptly?                                                                   | —   | —  | —   | —   |
| I.8<br>I.11<br>H.12 | 11. Were the relevant functions and activities implemented in a manner that is consistent with the organization's emergency plan and procedures? | —   | —  | —   | —   |

If not, explain why the organization did not follow its emergency plan and procedures:

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EVALUATION: Objective 7 was:        met        not met

NARRATIVE SUMMARY: (Describe play of objective, including points of review)

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OBJECTIVE 8: FIELD RADIOLOGICAL MONITORING - AIRBORNE IODINE MONITORING

Demonstrate the appropriate equipment and procedures for the measurement of airborne radioiodine concentrations as low as  $10^{-7}$  (.0000001) microcuries per cc in the presence of noble gases.

| NUREG REF  | POINTS OF REVIEW                                                                                                                                | YES | NO | N/A | N/O |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|
| I.8<br>I.9 | 1. Did the field team use monitoring equipment identified in the organization's plan?<br><br>If not, was it equivalent?                         | —   | —  | —   | —   |
| I.8<br>I.9 | 2. Did the field team have power to operate the air sampler (pump), either a 12 volt vehicle source or portable generator for 120 volt systems? | —   | —  | —   | —   |
| I.8<br>I.9 | 3. Was a silver-based adsorber available? (A charcoal adsorber is acceptable for exercise demonstrations if silver media is available.)         | —   | —  | —   | —   |
| I.8<br>I.9 | 4. Were air samples taken using the proper flow rate and sample duration, as specified in plan and procedures?                                  | —   | —  | —   | —   |
| I.8<br>I.9 | 5. Were samples/components properly bagged and labeled with time, date, location and identification of person who took them?                    | —   | —  | —   | —   |
| I.8<br>I.9 | 6. Did the field team leave the plume and travel to a low-background area before attempting to count the air sample media?                      | —   | —  | —   | —   |
| I.8<br>I.9 | 7. Was the instrument used to count the air sample media within calibration date?                                                               | —   | —  | —   | —   |
| I.8<br>I.9 | 8. Was a fixed (reproducible) geometry used to count the air sample media?                                                                      | —   | —  | —   | —   |

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OBJECTIVE 8: FIELD RADIOLOGICAL MONITORING - AIRBORNE IODINE MONITORING

| NUREG REF | POINTS OF REVIEW                                                                                                                                 | YES | NO | N/A | N/O |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|
| I.8       | 9. Were the count rates of air sample media transmitted to the proper location promptly?                                                         | —   | —  | —   | —   |
| I.9       |                                                                                                                                                  |     |    |     |     |
| I.8       | 10. Were the relevant functions and activities implemented in a manner that is consistent with the organization's emergency plan and procedures? | —   | —  | —   | —   |
| I.9       |                                                                                                                                                  |     |    |     |     |

If not, explain why the organization did not follow its emergency plan and procedures:

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EVALUATION: Objective 8 was:      met      not met

NARRATIVE SUMMARY: (Describe play of objective, including points of review)

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EVALUATION FORM

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OBJECTIVE 9: FIELD RADIOLOGICAL MONITORING - PARTICULATE ACTIVITY

Demonstrate the ability to obtain samples of particulate activity in the airborne plume and promptly perform laboratory analyses.

| NUM  | REF | POINTS OF REVIEW                                                                                                                                                  | YES | NO  | N/A | N/O |
|------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|
| I.10 |     | 1. Did a field monitoring team send an iodine particulate filter to a laboratory for analysis? Answer questions below if answer is yes.                           | ___ | ___ | ___ | ___ |
| I.10 |     | 2. Identify field team official who arranged for filter to be sent to laboratory.<br>_____                                                                        |     |     |     |     |
| I.10 |     | 3. When was the filter sent to the laboratory? What was the time interval between the taking of iodine samples and sending of the filter to the laboratory? _____ |     |     |     |     |
| I.10 |     | 4. Who took the filter to the laboratory? _____<br><br>Was this person a "runner" who is not part of the field monitoring team?                                   | ___ | ___ | ___ | ___ |
| I.10 |     | 5. Identify the name and location of this laboratory:<br>_____                                                                                                    |     |     |     |     |
| I.10 |     | 6. When did the laboratory receive the filter or simulated filter?<br>_____                                                                                       |     |     |     |     |
| I.10 |     | 7. Were established laboratory procedures for analysis of the filter followed?                                                                                    | ___ | ___ | ___ | ___ |

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OBJECTIVE 9: FIELD RADIOLOGICAL MONITORING - PARTICULATE ACTIVITY

|           |                  |     |    |     |     |
|-----------|------------------|-----|----|-----|-----|
| NUREG REF | POINTS OF REVIEW | YES | NO | N/A | N/O |
|-----------|------------------|-----|----|-----|-----|

I.10 8. Describe the results of the laboratory analysis based on a controller inject message provided to laboratory staff:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

I.10 9. When did the laboratory complete its analysis? (Or, when did the laboratory receive the controller inject message?)

\_\_\_\_\_

I.10  
H.12 10. Did the laboratory provide the results of its analysis to other organizations?

If so, identify these organizations and the time they were provided the data:

Organization

Time Provided Data

|       |       |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

I.10  
H.12 11. Were the relevant functions and activities implemented in a manner that is consistent with the organization's emergency plan and procedures?

If not, explain why the organization did not follow its emergency plan and procedures:

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EVALUATION: Objective 9 was:  met  not met

NARRATIVE SUMMARY: (Describe play of objective, including points of review)

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OBJECTIVE 10: PLUME DOSE PROJECTION

Demonstrate the ability, within the plume exposure pathway, to project dosage to the public via plume exposure, based on plant and field data.

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| NUREG REF | POINTS OF REVIEW                                                                                  | YES | NO | N/A | N/O |
|-----------|---------------------------------------------------------------------------------------------------|-----|----|-----|-----|
|           |                                                                                                   | —   | —  | —   | —   |
| I.10      | 1. Were primary and backup systems available for dose projection?                                 | —   | —  | —   | —   |
| I.10      | 2. Was plant status information promptly provided so that offsite dose projections could be made? | —   | —  | —   | —   |
| I.10      | 3. Were new dose projections made, if appropriate, based upon field monitoring data?              | —   | —  | —   | —   |
|           | Were new dose projections made as plant status changed?                                           | —   | —  | —   | —   |
| I.10      | 4. Was the projected plume location plotted and displayed?                                        | —   | —  | —   | —   |
|           | ___ Plotted      ___ Displayed                                                                    |     |    |     |     |
| I.10      | 5. Were field monitoring teams properly directed so that the plume could be defined?              | —   | —  | —   | —   |
|           | Was the plume properly defined by field teams?                                                    | —   | —  | —   | —   |
| I.10      | 6. Was field monitoring team data compared with projected dose rates?                             | —   | —  | —   | —   |
| I.10      | 7. Were projected wind shifts considered in the determination of the area of concern?             | —   | —  | —   | —   |

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OBJECTIVE 10: PLUME DOSE PROJECTION

NUREG REF POINTS OF REVIEW

|      |                                                                                                                                                 |     |    |     |     |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|
| I.10 | 8. Were the relevant functions and activities implemented in a manner that is consistent with the organization's emergency plan and procedures? | YES | NO | N/A | N/O |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|

If not, explain why the organization did not follow its emergency plan and procedures:

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## EVALUATION FORM

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EVALUATION: Objective 10 was:  met  not met

NARRATIVE SUMMARY: (Describe play of objective, including points of review)

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OBJECTIVE 11: PLUME PROTECTIVE ACTION DECISION MAKING

Demonstrate the ability to make appropriate protective action decisions, based on projected or actual dosage, EPA PAG's, availability of adequate shelter, evacuation time estimates and other relevant factors.

| NUREG REF | POINTS OF REVIEW                                                                                                                                                                                                                | YES | NO  | N/A | N/O |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|
| J.9       | 1. Were the correct PAG's used in consideration of the technical basis for the protective action recommendation?                                                                                                                | --- | --- | --- | --- |
| J.10.m    | 2. Were any preplanned PAR's implemented for special populations?<br>If so, were they in accord with the plan?                                                                                                                  | --- | --- | --- | --- |
| J.10.m    | 3. Were factors other than projected dose, i.e., quality of shelter, ETE's, etc., considered, if appropriate, in the protective action decision making process?<br><br>If so, specify these factors:<br>_____<br>_____<br>_____ | --- | --- | --- | --- |
| J.9       | 4. Were new protective action recommendations made as the plant status changed?                                                                                                                                                 | --- | --- | --- | --- |
| J.9       | 5. Were protective action recommendations made without undue delay, recognizing that some discussion is appropriate in all but the fastest-breaking accidents?                                                                  | --- | --- | --- | --- |

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OBJECTIVE 11: PLUME PROTECTIVE ACTION DECISION MAKING

|           |                  |     |    |     |     |
|-----------|------------------|-----|----|-----|-----|
| NUREG REF | POINTS OF REVIEW | YES | NO | N/A | N/O |
|-----------|------------------|-----|----|-----|-----|

J.9 7. List all protective action recommendations and the time that the protective action recommendation was made.

PROTECTIVE ACTION RECOMMENDATION TIME DECISION MADE

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J.9 8. Were the relevant functions and activities implemented in a manner that is consistent with the organization's emergency plan and procedures?

J.10.d If not, explain why the organization did not follow its emergency plan and procedures:

J.10.m

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EVALUATION: Objective 11 was:        met        not met

NARRATIVE SUMMARY: (Describe play of objective, including points of review)

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OBJECTIVE 12: ALEPT, NOTIFICATION AND EMERGENCY INFORMATION - INITIAL ALERT AND NOTIFICATION

Demonstrate the ability to initially alert the public within the 10-mile EPZ and begin dissemination of an instructional message within 15 minutes of a decision by appropriate State and/or local official(s).

| NUREG REF | POINTS OF REVIEW | YES | NO | N/A | N/O |
|-----------|------------------|-----|----|-----|-----|
|-----------|------------------|-----|----|-----|-----|

- |     |                                                                                                                                                                                                       |     |     |     |     |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|
| E.5 | 1. Did involved organizations demonstrate the capability to disseminate an alert signal and initiate and instructional message to the public within 15 minutes for the plume Emergency Planning Zone? | --- | --- | --- | --- |
| E.6 |                                                                                                                                                                                                       |     |     |     |     |

(This demonstration is required for a pre-agreed to alert and notification sequence. Also, the timing of the 15-minute sequence starts with designated offsite officials making the decision to implement a protective action or notify the public and ends with the instructional message being put on the air.)

Was this capability actually demonstrated?

If not, describe how the capability was simulated: \_\_\_\_\_

Identify alerting and notification methods used, if actually demonstrated:

Alert      Notification

- |                                                                     |                                                                                |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------|
| _____ Fixed siren system                                            | _____ Siren system with PA system                                              |
| _____ Mobile siren system                                           | _____ EBS                                                                      |
| _____ Tone alert radios                                             | _____ NOAA Weather Radio                                                       |
| _____ Route alerting (primary)                                      | _____ Tone alert radios                                                        |
| _____ Mobile PA alerting units (e.g., helicopter, boat or airplane) | _____ Mobile PA system notification units (e.g., helicopter, boat or airplane) |
| _____ Telephone calls to individuals or institutions                | _____ Telephone calls to individuals or institutions                           |
| _____ Other (specify): _____                                        | _____ Other (specify): _____                                                   |

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OBJECTIVE 12: ALERT, NOTIFICATION AND EMERGENCY INFORMATION - INITIAL ALERT AND NOTIFICATION

NUREG REF    POINTS OF REVIEW    YES    NO    N/A    N/O

Identify involved organizations:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

E.5  
E.6

2. If primary route alerting was demonstrated, answer the following questions:

How and when was the route alerting team(s) notified to initiate its functions?

How: \_\_\_\_\_

\_\_\_\_\_

When: \_\_\_\_\_

What route alerting vehicle(s) (e.g., police car) did you observe?

\_\_\_\_\_

For each route observed:

When did route alerting begin and when was it completed?

|         | <u>Time Initiated</u> | <u>Time Completed</u> |
|---------|-----------------------|-----------------------|
| Route 1 | _____                 | _____                 |
| Route 2 | _____                 | _____                 |
| Route 3 | _____                 | _____                 |

Was the route alerting completed within 15 minutes (or 45 minutes if for isolated area 5 to 10 miles from the plant)?

|         |       |       |       |       |
|---------|-------|-------|-------|-------|
| Route 1 | _____ | _____ | _____ | _____ |
| Route 2 | _____ | _____ | _____ | _____ |
| Route 3 | _____ | _____ | _____ | _____ |

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OBJECTIVE 12: ALERT, NOTIFICATION AND EMERGENCY INFORMATION - INITIAL ALERT AND NOTIFICATION

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| NUREG REF  | POINTS OF REVIEW                                                                                                             | YES | NO | N/A | N/O |
|------------|------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|
|            | Did route alerting team(s) have route maps?                                                                                  | —   | —  | —   | —   |
|            | Did route alerting team(s) have a written message to read over the PA system? (If so, secure a copy of the message.)         | —   | —  | —   | —   |
|            | Were the contents of the message accurate according to recommended protective actions?                                       | —   | —  | —   | —   |
|            | Was the PA system actually demonstrated?                                                                                     | —   | —  | —   | —   |
| E.5<br>E.6 | 3. Document the times associated with the following steps in the pre-agreed to 15-minute alerting and notification sequence. |     |    |     |     |

- | <u>Step</u>                                      | <u>Time</u> |
|--------------------------------------------------|-------------|
| a. Message from utility with PAR                 | _____       |
| b. Decision made by designated offsite officials | _____       |
| c. Alert signal activated                        | _____       |
| d. Instructional message begun                   | _____       |

|            |                                                                                                                                                                                                                                                                                                                                   |   |   |   |   |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|
| E.5<br>E.6 | 4. Did involved organizations demonstrate the capability to disseminate an alert signal and initiate instructional messages to special populations (e.g., extremely rural low-population areas; recreational areas and open water) from 5 to 10 miles from the plant within 45 minutes?                                           | — | — | — | — |
|            | (This demonstration is required for the pre-agreed to alert and notification sequence. Also, the timing of the 45-minute sequence starts with the designated offsite officials making the decision to implement a protective action or notify the public and ends with the initiation of an instructional message to the public.) |   |   |   |   |

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OBJECTIVE 12: ALERT, NOTIFICATION AND EMERGENCY INFORMATION - INITIAL ALERT AND NOTIFICATION

NUREG REF    POINTS OF REVIEW    YES    NO    N/A    N/O

Was this capability actually demonstrated by the involved organizations or simulated? (provide explanation below)

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Alert    Notification

- |                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>____ Mobile siren system</p> <p>____ Tone alert radios</p> <p>____ Route alerting (backup)</p> <p>____ Mobile PA alerting units (e.g., helicopter, boat or airplane)</p> <p>____ Telephone calls to individuals or institutions</p> <p>____ Other (specify): _____</p> | <p>____ EBS</p> <p>____ NOAA Weather Radio</p> <p>____ Tone alert radios</p> <p>____ Route alerting (backup)</p> <p>____ Mobile PA system notification units (e.g., helicopter, boat or airplane)</p> <p>____ Telephone calls to individuals or institutions</p> <p>____ Other (specify): _____</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Identify involved organizations:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

E.5  
 E.6

2. If backup route alerting was demonstrated, answer the following questions:

How and when was the route alerting team(s) notified to initiate its functions?

How: \_\_\_\_\_  
 \_\_\_\_\_

When: \_\_\_\_\_

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OBJECTIVE 12: ALERT, NOTIFICATION AND EMERGENCY INFORMATION - INITIAL ALERT AND NOTIFICATION

YES NO N/A N/O

NUREG REF POINTS OF REVIEW

What route alerting vehicle(s) (e.g., police car) did you observe?

For each route observed:

When did route alerting begin and when was it completed?

|         | <u>Time Initiated</u> | <u>Time Completed</u> |
|---------|-----------------------|-----------------------|
| Route 1 | _____                 | _____                 |
| Route 2 | _____                 | _____                 |
| Route 3 | _____                 | _____                 |

Did route alerting team(s) have route maps?

Did route alerting team(s) have a written message to read over the PA system? (If so, secure a copy of the message.)

Were the contents of the message accurate according to recommended protective actions?

Was the PA system actually demonstrated?

6. Document the times of the following steps for the pre-agreed to, 45-minute special alerting and notification sequence.

E.5  
E.6

Step

- a. Message from utility with PAR \_\_\_\_\_
- b. Decision made by designated offsite officials \_\_\_\_\_
- signal activated \_\_\_\_\_
- message begun \_\_\_\_\_

Time

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OBJECTIVE 12: ALERT, NOTIFICATION AND EMERGENCY INFORMATION - INITIAL ALERT AND NOTIFICATION

| NUREG REF  | POINTS OF REVIEW                                                                                                                                                                                                                                                                                                                                          | YES | NO | N/A | N/O |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|
| E.5<br>E.6 | 7. Who authorized the 15 and 45-minute alerting and notification?<br><br>_____                                                                                                                                                                                                                                                                            |     |    |     |     |
| E.5<br>E.6 | 8. Was the public notification process by the involved organizations effectively coordinated among involved organizations?<br><br>If not, describe coordination problems:<br><br>_____                                                                                                                                                                    |     |    |     |     |
| E.7        | 9. Obtain copies of all instructional messages and attach to this form (Objective 12).                                                                                                                                                                                                                                                                    |     |    |     |     |
| E.7        | 10. Was the content appropriate to protective action decisions?<br><br>Identify the scope of the instructional message:<br><br><input type="checkbox"/> Plume exposure pathway<br><input type="checkbox"/> Ingestion exposure pathway<br><input type="checkbox"/> Re-entry, resettlement and relocation<br><input type="checkbox"/> Other (specify) _____ |     |    |     |     |
| E.5<br>E.6 | 11. Were the timing of the alert signal and the instructional message coordinated to ensure that the alert signal came first, followed by the initiation of the instructional message within a few minutes?                                                                                                                                               |     |    |     |     |
| E.5        | 12. Were arrangements made to periodically rebroadcast the instructional message?                                                                                                                                                                                                                                                                         |     |    |     |     |

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OBJECTIVE 12: ALERT, NOTIFICATION AND EMERGENCY INFORMATION - INITIAL ALERT AND NOTIFICATION

|           |                  |     |    |     |     |
|-----------|------------------|-----|----|-----|-----|
| NUREG REF | POINTS OF REVIEW | YES | NO | N/A | N/O |
|-----------|------------------|-----|----|-----|-----|

What route alerting vehicle(s) (e.g., police car) did you observe?

For each route observed:

When did route alerting begin and when was it completed?

|         | <u>Time Initiated</u> | <u>Time Completed</u> |
|---------|-----------------------|-----------------------|
| Route 1 | _____                 | _____                 |
| Route 2 | _____                 | _____                 |
| Route 3 | _____                 | _____                 |

Did route alerting team(s) have route maps? \_\_\_\_\_

Did route alerting team(s) have a written message to read over the PA system? (If so, secure a copy of the message.) \_\_\_\_\_

Were the contents of the message accurate according to recommended protective actions? \_\_\_\_\_

Was the PA system actually demonstrated? \_\_\_\_\_

- E.5 6. Document the times of the following steps for the pre-agreed  
E.6 to, 45-minute special alerting and notification sequence.

| <u>Step</u>                                      | <u>Time</u> |
|--------------------------------------------------|-------------|
| a. Message from utility with PAR                 | _____       |
| b. Decision made by designated offsite officials | _____       |
| c. Alert signal activated                        | _____       |
| d. Instructional message begun                   | _____       |

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OBJECTIVE 12: ALERT, NOTIFICATION AND EMERGENCY INFORMATION - INITIAL ALERT AND NOTIFICATION

NURFG REF POINTS OF REVIEW

E.5  
E.6  
E.7

13. Were the relevant functions and activities implemented in a manner that is consistent with the organization's emergency plan and procedures?

YES NO N/A N/O

If not, explain why the organization did not follow its emergency plan and procedures:

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EVALUATION: Objective 12 was: \_\_\_\_\_ met \_\_\_\_\_ not met

**NARRATIVE SUMMARY: (Describe play of objective, including points of review)**

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OBJECTIVE 13: ALERT, NOTIFICATION AND EMERGENCY INFORMATION - PUBLIC INSTRUCTIONS

Demonstrate the ability to coordinate the formulation and dissemination of accurate information to the public in a timely fashion.

| NUREG REF | POINTS OF REVIEW                                                                                                                                                                                                                              | YES | NO  | N/A | N/O |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|
| E.5       | 1. Did staff disseminate information to the public after the first alert and notification sequence?<br><br>If so, specify the times when these disseminations were initiated:<br><br>#1 _____<br>#2 _____<br>#3 _____<br>#4 _____<br>#5 _____ | --- | --- | --- | --- |
| E.5       | 2. What organization(s) was responsible for this function?<br><br>_____<br><br>_____                                                                                                                                                          |     |     |     |     |
| E.5       | 3. Did the staff have access to current, accurate and timely information?                                                                                                                                                                     | --- | --- | --- | --- |
| E.5       | 4. Describe how staff secured current information on protective action recommendations:<br><br>_____<br><br>_____<br><br>_____                                                                                                                |     |     |     |     |

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OBJECTIVE 13: ALERT, NOTIFICATION AND EMERGENCY INFORMATION - PUBLIC INSTRUCTIONS

NUREG REF POINTS OF REVIEW

| NUREG REF | POINTS OF REVIEW                                                                                                                                                                                                                    | YES | NO | N/A | N/O |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|
| E.7       | 5. Were pre-scripted messages used?<br>If not, describe how messages were developed:<br>_____<br>_____<br>_____                                                                                                                     | —   | —  | —   | —   |
| G.4.a     | 6. Was the formulation and dissemination of the information to the public effectively coordinated by the involved organizations?<br>If not, describe the nature and extent of the coordination problems:<br>_____<br>_____<br>_____ | —   | —  | —   | —   |
| G.4.a     | 7. Did staff provide accurate and timely information to the public?                                                                                                                                                                 | —   | —  | —   | —   |
| G.4       | 8. Who authorized releases of information to the public?                                                                                                                                                                            | —   | —  | —   | —   |
| E.6       | 9. Was a log maintained of all releases disseminated to the public?<br>Were copies of all releases kept and accessible to all staff?                                                                                                | —   | —  | —   | —   |
| E.6       | 10. Did staff monitor radio and television broadcasts to keep track of information provided to the public?                                                                                                                          | —   | —  | —   | —   |
| G.4       | 11. Was there a return flow of information to the EGF and EOC's, so that staff at these locations were aware of what information had been given to the media?                                                                       | —   | —  | —   | —   |

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OBJECTIVE 13: ALERT, NOTIFICATION AND EMERGENCY INFORMATION - PUBLIC INSTRUCTIONS

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| NUREG REF                                  | POINTS OF REVIEW                                                                                                                                                                                                                                                                   | YES | NO  | N/A | N/O |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|
| G.4                                        | 12. Were press releases and results of press interviews exchanged with other spokespersons?<br><br>How was information exchanged? _____<br>_____<br>_____                                                                                                                          | --- | --- | --- | --- |
|                                            | Did the information management system provide for the effective and timely coordination of the formulation and dissemination of emergency information and instructions?<br><br>If not, describe problems:<br>_____<br>_____<br>_____                                               | --- | --- | --- | --- |
| E.5<br>E.6<br>E.7<br>G.4<br>G.4.a<br>G.4.c | 13. Were the relevant functions and activities implemented in a manner that is consistent with the organization's emergency plan and procedures?<br><br>If not, explain why the organization did not follow its emergency plan and procedures:<br>_____<br>_____<br>_____<br>_____ | --- | --- | --- | --- |

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OBJECTIVE 14: ALERT, NOTIFICATION AND EMERGENCY INFORMATION - MEDIA

Demonstrate the ability to brief the media in an accurate, coordinated and timely manner.

NUREG REF POINTS OF REVIEW

G.3.a 1. Did staff provide briefings to the "media"? YES NO N/A N/O  
 If so, specify the times when briefings were initiated:

- |                   |                    |
|-------------------|--------------------|
| Briefing #1 _____ | Briefing #6 _____  |
| Briefing #2 _____ | Briefing #7 _____  |
| Briefing #3 _____ | Briefing #8 _____  |
| Briefing #4 _____ | Briefing #9 _____  |
| Briefing #5 _____ | Briefing #10 _____ |

G.3.a 2. What organization(s) was responsible for this function?  
 \_\_\_\_\_  
 \_\_\_\_\_

G.3.a 3. How many staff were utilized for this function? \_\_\_\_\_

G.3.a 4. Did the staff have access to current, accurate and timely information?  
 \_\_\_\_\_

G.3.a 5. Describe how (source and method) staff secured current information on emergency response:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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OBJECTIVE 14: ALERT, NOTIFICATION AND EMERGENCY INFORMATION - MEDIA

| NUREG REF | POINTS OF REVIEW                                                                                                                                                | YES | NO | N/A | N/O |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|
| G.3.a     | 6. Was pre-scripted information used for the media briefings?                                                                                                   | —   | —  | —   | —   |
| G.3.a     | 7. Did staff provide accurate, responsive information to the media in a prompt manner?                                                                          | —   | —  | —   | —   |
| G.3.a     | 8. Who authorized release of information to the media?                                                                                                          | —   | —  | —   | —   |
| G.3.a     | 9. Did staff provide media with accurate information on the protective action recommendations for the public?                                                   | —   | —  | —   | —   |
| G.3.a     | 10. Were all protective action decisions described in terms of familiar landmarks and boundaries for affected planning areas?                                   | —   | —  | —   | —   |
| G.3.a     | 11. Did staff avoid use of technical jargon?                                                                                                                    | —   | —  | —   | —   |
| G.3.a     | 12. Were maps and other displays effectively used?                                                                                                              | —   | —  | —   | —   |
| G.3.a     | 13. Were copies of news releases provided to the "media"?<br>Were they provided in a timely manner?<br>(Obtain copies of news releases and note time released.) | —   | —  | —   | —   |
| G.3.a     | 14. Was a log maintained of information provided to the media?<br>Were copies of all releases kept and accessible to all staff?                                 | —   | —  | —   | —   |
| G.3.a     | 15. Did staff maintain sufficient contact with decision makers to keep abreast of current events and information?                                               | —   | —  | —   | —   |

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OBJECTIVE 14: ALERT, NOTIFICATION AND EMERGENCY INFORMATION - MEDIA

| NUREG REF | POINTS OF REVIEW                                                                                                                                 | YES | NO  | N/A | N/O |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|
| G.3.a     | 16. Did staff monitor radio and television broadcasts to keep track of information provided to the public?                                       | --- | --- | --- | --- |
| G.3.a     | 17. Did staff provide kits to the media?                                                                                                         | --- | --- | --- | --- |
|           | If so, describe the types of information contained in the media kits:                                                                            |     |     |     |     |
|           | _____                                                                                                                                            |     |     |     |     |
|           | _____                                                                                                                                            |     |     |     |     |
| G.3.a     | 18. Were the relevant functions and activities implemented in a manner that is consistent with the organization's emergency plan and procedures? | --- | --- | --- | --- |
|           | If not, explain why the organization did not follow its emergency plan and procedures:                                                           |     |     |     |     |
|           | _____                                                                                                                                            |     |     |     |     |
|           | _____                                                                                                                                            |     |     |     |     |
|           | _____                                                                                                                                            |     |     |     |     |
|           | _____                                                                                                                                            |     |     |     |     |

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EVALUATION: Objective 14 was:        met        not met

NARRATIVE SUMMARY: (Describe play of objective, including points of review)

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OBJECTIVE 15: USE OF KI

Demonstrate the ability to make the decision to recommend the use of KI to emergency workers based on predetermined criteria, as well as to distribute and administer it once the decision is made, if necessitated by radioiodine releases.

| NUREG REF        | POINTS OF REVIEW                                                                                                                                                                                                                                               | YES | NO | N/A | N/O |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|
| J.10.e<br>J.10.f | 1. Did authorizing official(s) make decision to recommend use of KI?<br>What official(s) made the decisions?<br>_____<br>When was the decision made? _____<br>When were instructions to use KI transmitted?<br>_____<br>For what group?<br>-Emergency workers? | —   | —  | —   | —   |
| J.10.f           | 2. Was the decision made to use KI based on projected or actual dose to thyroid?<br>_____ Projected      _____ Actual<br>Was the decision to use KI made on the basis of FDA PAG's?                                                                            | —   | —  | —   | —   |
| J.10.f           | 3. Were the affected emergency workers/institutions informed of this decision/instructions in a timely manner?<br>For emergency workers?<br>When? _____                                                                                                        | —   | —  | —   | —   |

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OBJECTIVE 15: USE OF KI

| NUREG REF        | POINTS OF REVIEW                                                                                                                                                                                                                                                                  | YES | NO | N/A | N/O |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|
| J.10.e<br>J.10.f | 5. Did personnel responsible for direct administration/use of KI follow instructions given them by authorizing official(s)?<br><br>For emergency workers?                                                                                                                         | —   | —  | —   | —   |
| J.10.f           | 6. Was the KI distributed in sufficient quantities and in a timely manner according to decisions?<br><br>For emergency workers?<br>When? _____                                                                                                                                    | —   | —  | —   | —   |
| J.10.e<br>J.10.f | 7. If the administration (i.e., ingestion) of KI was simulated, was the date, time and dose for the use of KI for each individual recorded?                                                                                                                                       | —   | —  | —   | —   |
| J.10.e<br>J.10.f | 8. Were the relevant functions and activities implemented in a manner that is consistent with the organization's emergency plan and procedures?<br><br>If not, explain why the organization did not follow its emergency plan and procedures:<br>_____<br>_____<br>_____<br>_____ | —   | —  | —   | —   |

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EVALUATION: Objective 15 was: \_\_\_ met \_\_\_ not met

NARRATIVE SUMMARY: (Describe play of objective, including points of review)

Area with horizontal lines for writing the narrative summary.

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OBJECTIVE 16: SUPPLEMENTARY ASSISTANCE (FEDERAL/OTHER)

Demonstrate the ability to identify the need for and call upon Federal and other outside agencies' assistance.

NUREG REF POINTS OF REVIEW

YES NO N/A N/O

C.1.a 1. Was Federal assistance requested?

— — — —

If so, did an authorized official make this request?

— — — —

Identify this official and his/hr organization:

C.1.a 2. Which Federal agency(ies) was contacted to request assistance?

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

C.1.a 3. What Federal assistance was requested and when was it expected to be provided?  
 C.1.b

Assistance

When Expected

|       |       |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

C.1.c 4. What actions and resources were required by the requesting organization(s) to support the Federal response?

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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OBJECTIVE 16: SUPPLEMENTARY ASSISTANCE (FEDERAL/OTHER)

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NUREG REF POINTS OF REVIEW

YES NO N/A N/O

Were these actions taken and resources provided?

If not, why were they not provided?

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

C.4 5. Was other assistance and resources requested from non-Federal organizations or individuals?

If so, which organization(s) requested assistance and resources?

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

C.4 6. From what non-Federal sources was assistance and resources expected?

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

C.4 7. What assistance was requested from non-Federal sources and when was it expected?

Assistance

When Expected

|       |       |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

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OBJECTIVE 16: SUPPLEMENTARY ASSISTANCE (FEDERAL/OTHER)

| NUREG REF                      | POINTS OF REVIEW                                                                                                                                                                                                                                                                                       | YES | NO | N/A | N/O |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|
| C.4                            | <p>8. What actions and resources were required by the requesting organization(s) to support non-Federal response?</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Were these actions taken and resources provided?</p> <p>If not, why were they not provided?</p> <p>_____</p> <p>_____</p> <p>_____</p> |     |    |     |     |
| C.1.b                          | <p>9. Was appropriate assistance and resources requested from Federal and/or non-Federal sources?</p> <p>Was this assistance requested in a timely manner?</p>                                                                                                                                         |     |    |     |     |
| C.1.a<br>C.1.b<br>C.1.c<br>C.4 | <p>10. Were the relevant functions and activities implemented in a manner that is consistent with the organization's emergency plan and procedures?</p> <p>If not, explain why the organization did not follow its emergency plan and procedures:</p> <p>_____</p> <p>_____</p> <p>_____</p>           |     |    |     |     |

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EVALUATION: Objective 16 was: \_\_\_\_\_ met \_\_\_\_\_ not met

NARRATIVE SUMMARY: (Describe play of objective, including points of review)

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OBJECTIVE 17: EVACUATION OF ONSITE PERSONNEL

Demonstrate the ability to coordinate the evacuation of onsite personnel.

| NUREG REF | POINTS OF REVIEW                                                                                                                             | YES | NO | N/A | N/O |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|
| J.2       | 1. Was evacuation of onsite individuals demonstrated?                                                                                        | —   | —  | —   | —   |
| J.2       | 2. If so, was it:<br>Promptly activated?<br>Well organized?                                                                                  | —   | —  | —   | —   |
| J.2       | 3. Did the licensee contact offsite authorities to coordinate evacuation of onsite individuals?                                              | —   | —  | —   | —   |
| J.2       | 4. Was an evacuation route specified?                                                                                                        | —   | —  | —   | —   |
| J.2       | 5. Was monitoring and decontamination provided for, if appropriate?                                                                          | —   | —  | —   | —   |
|           | Were the relevant functions and activities implemented in a manner that is consistent with the organization's emergency plan and procedures? | —   | —  | —   | —   |
|           | If not, explain why the organization did not follow its emergency plan and procedures:                                                       |     |    |     |     |
|           | _____                                                                                                                                        |     |    |     |     |
|           | _____                                                                                                                                        |     |    |     |     |
|           | _____                                                                                                                                        |     |    |     |     |
|           | _____                                                                                                                                        |     |    |     |     |

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OBJECTIVE 18: OFFSITE RESPONSE ORGANIZATIONS

Demonstrate the capability of offsite response organization personnel to interface with through their mobilization and provision of advice and assistance.

NUREG REF    POINTS OF REVIEW    YES    NO    N/A    N/O

1. Identify utility offsite response organization liaisons contacted.

Liaison                      Time Notified

|       |       |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

- C.5                      2. At what time did the liaisons arrive at their assigned duty station?  
N.1.b

Liaison                      Time of Arrival

|       |       |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

- C.5                      3. Did liaisons provide advice and information to the control cell?  
N.1.b

If yes, indicate the nature of the advice and information provided.

Nature of Advice/Assistance

|       |
|-------|
| _____ |
| _____ |
| _____ |
| _____ |

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OBJECTIVE 18: UTILITY OFFSITE RESPONSE ORGANIZATIONS

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| NUREG REF    | POINTS OF REVIEW                                                                                                                                | YES | NO | N/A | N/O |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|-----|
| C.5          | 4. Did the liaisons provide accurate and timely information, if appropriate?                                                                    | —   | —  | —   | —   |
| C.5<br>N.1.b | 5. Were the relevant functions and activities implemented in a manner that is consistent with the organization's emergency plan and procedures? | —   | —  | —   | —   |
|              | If not, explain why the organization did not follow its emergency plan and procedures:<br><hr/> <hr/> <hr/> <hr/>                               |     |    |     |     |

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EMERGENCY PLAN CORRECTIVE ACTION REPORT

Prepared By: \_\_\_\_\_ Date: \_\_\_\_\_  
Name/Title

Approved: \_\_\_\_\_  
Superintendent of Power

Individual Assigned to  
Correct Deficiency \_\_\_\_\_  
Name/Title

Reviewed: \_\_\_\_\_  
PORC \_\_\_\_\_ Date \_\_\_\_\_

TO BE COMPLETED BY INDIVIDUAL PREPARING FORM

ITEM DEFICIENCY-

\_\_\_\_\_  
DESCRIPTION AND/OR CAUSE-

\_\_\_\_\_  
RECOMMENDED CORRECTIVE ACTION-

CORRECTIVE ACTION TO BE COMPLETED BY \_\_\_\_\_  
DATE

TO BE COMPLETED BY INDIVIDUAL ASSIGNED TO CORRECT DEFICIENCY

RESOLUTION- (Include Applicable Work Authorization Numbers or  
Purchase Authorizations)

SIGNATURE: \_\_\_\_\_  
DATE: \_\_\_\_\_

PLEASE RETURN COMPLETED FORM TO THE JAFNPP EMERGENCY PLANNING  
COORDINATOR.

FORM SAP 6.4

EMERGENCY PLAN CORRECTIVE ACTION LOG

| NO. | DEFICIENCY<br>(Include references<br>to forms, memos,<br>etc.) | SCHEDULED<br>COMPLETION<br>DATE | PERSON<br>ASSIGNED | ACTION TAKEN | DATE<br>EVALUATED |
|-----|----------------------------------------------------------------|---------------------------------|--------------------|--------------|-------------------|
|-----|----------------------------------------------------------------|---------------------------------|--------------------|--------------|-------------------|

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EMERGENCY PLANNING COORDINATOR \_\_\_\_\_

DATE REVIEWED \_\_\_\_\_