123 Main Street
White Plains, New York 10601
914 681.6240

NewYorkPower Authority

John C. Brons
Senior Vice President
Nuclear Generation

October 3, 1986
IPN-86-49

Ms. Leta Brown
Plant Systems Branch
U.S. Nuclear Regulatory Commission
Mail Stop 416
Washington, D.C. 20555

Subject: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
Submittal of Meteorological Data

References:
1. Letter from S.A. Varga to J.C. Brons, dated September 2, 1986.
2. IE Information Notice No. 84-91, "Quality Control Problems of Meteorological Measurements Programs," dated December 10, 1984.

Dear Ms. Brown:

Reference (1) requested one year of hourly meteorological data which was recently collected from the onsite meteorological equipment. The Power Authority understands that this data will be used for NRC review as follow-up action to Reference (2).

As requested, enclosed is one magnetic tape, a printout of the parameters used with sample data, and a sample dump from the tape. The magnetic tape may be kept for your use and need not be returned.

The tape data is for calendar year 1985 and provides all the parameters identified in Reference (2). Omitted from the tape are parameters such as solar radiation and precipitation which were not of concern in Reference (2). This data can be supplied on strip charts at your request.

8611190254 861003
PDR ADOCK 05000286
F PDR

Rec'd w/out Tape & Printout
A001
1/0

Add: Leta Brown
NRR PWR-A ADTS

Should you or your staff have any questions regarding this matter, please contact Mr. P. Kokolakis of my staff.

Very truly yours,

John C. Brons
Senior Vice President
Nuclear Generation

Enclosure

cc: Resident Inspector's Office
Indian Point Unit 3
U.S. Nuclear Regulatory Commission
Buchanan, N.Y. 10511

Don Neighbors, Senior Project Manager
PWR Project Directorate No. 3
Division of PWR Licensing-A
U.S. Nuclear Regulatory Commission
Bethesda, MD 20014

**** TSO FOREGROUND HARDCOPY ****
DSNAME=IEN6188.NYPA85.DATA

```
*********************************************
*        NEW YORK POWER AUTHORITY           *
*     INDIAN POINT STATION UNIT NO. 3       *
*          BUCHANAN, NEW YORK               *
* LATITUDE=41.2599 N, LONGITUDE=73.95001W   *
*********************************************
```

----------PARAMETERS----------

YY=YEAR MM=MONTH DD=DAY HH=HOUR(EST)
DT1=60-10 METER DELTA-T (DEGREES F)
DT2=122-10 METER DELTA-T (DEGREES F)
SP1=10 METER WIND SPEED (MILES/HOUR)
SP2=122 METER WIND SPEED (MILES/HOUR)
DR1=10 METER WIND DIRECTION (DEGREES)
DR2=122 METER WIND DIRECTION (DEGREES)
SP2=122 METER WIND SPEED (MILES/HOUR)
CALM WINDS HAVE 555 IN THE DIRECTION FIELD
MISSING DATA IS DESIGNATED BY ALL NINES(9999) IN THE DATA FIELD

ONSITE METEOROLOGICAL DATA
JANUARY 1 TO DECEMBER 31, 1985

YMMDDHH	DT1	DT2	SP1	DR1	SP2	DR2
85010101	-0.5	-1.3	3.5	40	7.0	25

**** TSO FOREGROUND HARDCOPY ****
DSNAME=IENG300.[redacted]

```
**********NEW YORK POWER AUTHORITY*************
* INDIAN POINT UNIT NO. 3,BUCHANAN,NEW YORK   *
* LATITUDE=41.2599 N, LONGITUDE=73.95001W     *
*********************************************
  WS(MPH) , DIR(DEGREES), DT(TEMP DIFF,DEG F)
  DT1=60-10 METERS,DT2=122-10 METERS
  SP1,DR1= 10 METER DATA;SP2,DR2= 122 METER DATA

   999=MISSING DATA , DR1=555 INDICATES CALM
   YY=YEAR MM=MONTH DD=DAY HH=HOUR(EST)
```

INDIAN POINT METEOROLOGICAL DATA
JANUARY 1 TO DECEMBER 31,1985

YYMMDDHH	DT1	DT2	SP1	DR1	SP2	DR2
85010101	-0.5	-1.3	3.5	40	7.0	25
85010102	-0.9	-1.7	4.0	30	6.0	35
85010103	-0.5	-0.7	2.0	35	6.0	40
85010104	-0.7	-1.1	2.0	55	4.5	60
85010105	-0.8	-1.1	1.0	55	3.0	75
85010106	-0.7	-1.0	2.0	25	3.0	50
85010107	-0.7	-1.0	2.5	25	2.5	45
85010108	-0.5	-0.2	2.0	10	7.5	120
85010109	-0.6	-0.3	1.5	35	4.5	145
85010110	-1.0	-0.7	2.0	350	2.5	170
85010111	-1.0	-1.0	2.0	10	2.5	240
85010112	-1.0	-1.0	2.0	330	3.5	215
85010113	-0.9	-0.7	2.0	340	1.0	210
85010114	-0.9	-0.6	1.5	20	2.0	220
85010115	-0.2	0.3	1.0	55	2.0	195
85010116	0.3	1.3	2.0	40	2.0	210
85010117	1.3	2.1	2.0	20	1.0	255
85010118	1.6	2.2	2.0	40	1.5	210
85010119	1.1	2.6	2.0	50	1.5	160
85010120	1.3	3.3	0.6	65	2.5	200
85010121	1.9	4.8	1.0	45	4.0	190
85010122	2.3	5.0	1.5	35	3.0	210
85010123	2.8	4.4	2.0	50	2.0	170
85010124	3.1	5.7	1.5	30	3.5	190
85010201	3.9	6.2	2.0	75	5.5	200
85010202	3.4	7.0	2.0	40	7.0	190
85010203	2.0	5.3	2.0	120	6.5	200
85010204	0.9	3.9	1.0	50	4.5	210
85010205	2.6	4.3	1.0	45	3.0	200
85010206	1.1	2.3	2.0	45	4.0	330
85010207	-1.0	-0.6	9.0	15	17.0	360
85010208	-0.5	-1.0	6.0	15	11.5	5
85010209	-0.6	-1.2	7.5	10	16.0	5
85010210	-0.8	-1.1	6.0	15	10.0	5
85010211	-0.8	-1.5	6.5	10	13.5	360
85010212	-1.0	-1.5	6.5	10	11.0	5
85010213	-0.9	-1.4	7.0	15	12.0	5
85010214	-1.1	-1.7	4.5	355	10.0	5
85010215	-0.9	-1.9	7.5	15	16.0	5
85010216	-0.9	-1.8	7.0	10	14.0	360
85010217	-0.9	-1.8	6.0	355	13.0	355
85010218	-0.9	-1.9	6.0	10	12.0	360

85010219	-1.0-1.1	6.0	10	11.0	5
85010220	-1.0-2.1	5.0	10	11.5	360
85010221	-1.0-2.2	7.0	20	14.0	20
85010222	-0.9-2.0	6.0	360	12.0	360
85010223	-0.9-2.0	7.0	360	12.5	360
85010224	-0.9-2.0	6.0	10	15.0	360
85010301	-0.9-2.0	8.5	5	15.0	360
85010302	-0.9-2.0	6.5	10	12.5	10
85010303	-0.9-1.9	5.0	10	10.0	10
85010304	-0.9-1.9	8.0	15	14.0	15
85010305	-1.0-2.0	8.0	10	16.0	5
85010306	-0.9-2.1	7.5	10	14.0	10
85010307	-1.1-2.2	7.0	20	14.5	20
85010308	-0.9-2.2	8.0	20	14.0	20
85010309	-1.2-2.3	7.5	10	13.0	10
85010310	-1.1-2.4	7.0	15	12.5	5
85010311	-1.5-2.7	6.0	10	13.0	360
85010312	-1.3-2.6	7.0	10	12.0	10
85010313	-1.5-2.7	5.5	360	10.5	360
85010314	-1.4-2.5	6.0	360	9.0	5
85010315	-1.2-2.4	6.0	360	10.0	5
85010316	-1.0-2.2	6.0	15	10.0	20
85010317	-1.1-2.2	6.0	15	10.0	10
85010318	-1.0-2.1	7.0	10	11.0	10
85010319	-1.0-2.1	6.0	10	10.0	5
85010320	-0.9-2.0	6.5	20	11.0	10
85010321	-1.0-2.2	5.0	10	10.0	10
85010322	-1.0-2.2	7.0	5	11.5	5
85010323	-1.0-2.1	5.0	20	10.0	10
85010324	-1.0-2.1	6.5	10	10.5	10
85010401	-1.0-2.1	6.5	10	10.5	5
85010402	-1.0-2.1	5.5	15	10.0	15
85010403	-1.0-2.1	6.5	10	11.0	10
85010404	-1.1-2.2	7.0	15	12.0	15
85010405	-1.1-2.1	6.0	15	10.5	10
85010406	-1.0-2.1	7.0	20	11.0	15
85010407	-1.0-2.1	5.0	15	8.0	5
85010408	-1.1-2.1	7.5	10	11.0	10
85010409	-1.1-2.2	4.5	360	7.0	355
85010410	-1.2-2.2	4.0	30	5.0	25
85010411	-1.3-2.4	4.5	15	7.0	10
85010412	-1.1-2.1	2.5	360	2.0	210
85010413	-1.0-2.1	2.0	45	1.5	60
85010414	-0.9-1.8	1.5	30	2.0	320
85010415	-1.1-2.1	2.0	65	2.0	155
85010416	-1.1-2.1	2.0	115	2.5	190
85010417	-0.5-1.5	1.0	50	3.0	195
85010418	-0.8-1.6	3.0	5	3.5	355
85010419	-0.9-1.7	3.0	15	4.0	350
85010420	-1.0-1.5	4.0	10	4.0	360
85010421	-0.9-1.2	2.0	60	1.0	100
85010422	-0.7-0.9	1.5	50	4.0	15
85010423	-0.7-1.2	3.5	5	7.0	355
85010424	-0.5-0.8	7.0	10	12.0	5
85010501	-0.4-0.6	7.5	15	15.0	360
85010502	-0.6-1.3	8.5	10	14.5	10
85010503	-0.6-1.3	7.5	10	16.0	5
85010504	0.7-0.3	8.0	15	18.0	360
85010505	-0.7-1.3	7.0	345	18.0	350
85010506	-0.7-1.5	6.0	10	12.0	360
85010507	-0.9-1.7	6.0	360	14.0	360

Indian Point 3
Nuclear Power Plant
P.O. Box 215
Buchanan, New York 10511
914 739.8200

New York Power Authority

TO: NRC DOCUMENT CONTROL DESK CONTROL COPY NO.: 26

FROM: TERRY RYAN DATE: 02/03/87

SUBJECT: DISTRIBUTION OF THE INDIAN POINT #3 EMERGENCY PLAN REVISIONS

The enclosed sheets are revisions to your controlled copy of the IP-3 Emergency Plan. Please discard the old sheets, insert the attached sheets, initial and date this transmittal sheet, and return it to Ms. Terry Ryan, IP-3 Documents Supervisor.

VOLUME I - EMERGENCY PLAN

OLD: (Discard)	NEW:
AP-6, Rev. 16 Cover Sheet & Index	AP-6, Rev. 17 Cover Sheet & New Index
Vol. I, Table of Contents (No Date)	Vol. I, Table of Contents 02/03/87
Section 4.0 - Index & Pgs. 4-1 - 4/25	Section 4.0 (All) 02/03/87
Appendix F - Cover Sheet & Pgs. 1-5	Appendix F (All) 02/03/87

VOLUME II - EMERGENCY RESPONSE ACTIVATION

OLD: (Discard)	NEW:
Vol. II, Rev. 18 Cover Sheet	Vol. II, Rev. 19 Cover Sheet
Vol. II, Table of Contents (08/86)	Vol. II, Table of Contents 02/03/87
Initiating Conditions - All	Initiating Conditions (All) 02/03/87
Control Room - All	Control Room (All) 02/03/87
EOF - All	EOF (All) 02/03/87
OSC - All	OSC (All) 02/03/87
TSC - All	TSC (All) 02/03/87
Security - All	Security (All) 02/03/87
EP-Forms Index and All Forms	New EP-Forms Index/Forms - 02/03/87

VOLUME III - EMERGENCY PLAN IMPLEMENTING PROCEDURES

OLD: (Discard)	NEW:
Vol. III, Index - Rev. 42, 12/86	Vol. III, Index - Rev. 43, 02/87
IP-1017, Rev. 4	Ip-1017, Rev. 5

I acknowledge the receipt of these revisions to the IP-3 Emergency Plan.

_____ / _____
(Signature) (Date)

A045 0/1

Enclosures
MAC:mm

50-286

POWER AUTHORITY OF THE STATE OF NEW YORK

INDIAN POINT NO. 3 NUCLEAR POWER PLANT

AP-6, Rev. 16

EMERGENCY PLAN

Written by: Margaret McCough

Reviewed by: Mary Ann Chaubard

PORC Review J A Levin Date 7/15/86

Approved by: W A Fonga Date 7/15/86

Effective Date 7/16/86

NEW YORK POWER AUTHORITY
INDIAN POINT NO. 3 NUCLEAR POWER PLANT
EMERGENCY PLAN - VOLUME I

INDEX

SECTION

1.0 Definitions

2.0 Scope and Applicability

3.0 Summary of Emergency Planning Program

4.0 Emergency Conditions

5.0 Organizational Control of Emergencies

6.0 Emergency Measures

7.0 Emergency Facilities and Equipment

8.0 Maintaining Emergency Preparedness

APPENDICES

A Letters of Agreement

B Time-Dose-Distance Plots

C Evaluation of Core Degradation Using Containment Accident Monitors

D Listing of Immediate Action Guidelines and Implementing Procedures

E NUREG-0654, Rev. 1 - Emergency Plan Cross Reference

F Stored Emergency Plan Equipment and Supplies

G Supporting Plans

NEW YORK POWER AUTHORITY
INDIAN POINT NO. 3 NUCLEAR POWER PLANT
EMERGENCY PLAN - VOLUME I

TABLE OF CONTENTS

SECTION		TITLE
1.0		Definitions
2.0		Scope and Applicability
	2.1	Scope
	2.2	Applicability
3.0		Summary of the IP-3 Emergency Planning Program
	3.1	Volume I - The Emergency Plan
	3.2	Volume II - Emergency Response Activation
	3.3	Volume III - Emergency Plan Implementing Procedures
4.0		Emergency Conditions
	4.1	Notification of Unusual Event
	4.2	Alert Emergency
	4.3	Site Area Emergency
	4.4	General Emergency
	Table 4-1	Emergency Action Levels
5.0		Organizational Control of Emergencies
	5.1	Normal Operating Organization
	5.2	Onsite Emergency Organization
	5.3	Augmentation of the Onsite Emergency Organization
	5.4	Coordination with Participating Government Agencies
6.0		Emergency Measures
	6.1	Initial Classification of the Emergency
	6.2	Initial Response Actions
	6.3	Emergency Measures for Radiological Emergencies
	6.4	Corrective Actions
	6.5	Protective Actions
	6.6	Aid to Affected Personnel
7.0		Emergency Facilities and Equipment
	7.1	Licensee Emergency Facilities
	7.2	County and State Emergency Centers
	7.3	Communication Systems
	7.4	Monitoring/Assessment Facilities and Equipment

16

NEW YORK POWER AUTHORITY
INDIAN POINT NO. 3 NUCLEAR POWER PLANT
EMERGENCY PLAN - VOLUME I

TABLE OF CONTENTS
(CONT'D)

SECTION		TITLE
8.0		Maintaining Emergency Preparedness
	8.1	Emergency Planning Coordinator
	8.2	Organizational Preparedness
	8.3	Maintenance and Inventory of Emergency Equipment and Supplies
	8.4	Review and Updating of the Emergency Plan
	8.5	Dissemination of Educational Information to the Public

Appendix A	Letters of Agreement
Appendix B	Time-Dose-Distance Plots
Appendix C	Evaluation of Core Degradation Using Containment Accident Monitors
Appendix D	Listing of Immediate Action Guidelines and Implementing Procedures
Appendix E	NUREG-0654, Rev. 1 / IP-3 Emergency Plan Cross Reference
Appendix F	Stored Emergency Plan Equipment and Supplies
Appendix G	Supporting Plans

16

SECTION 4.0

EMERGENCY CONDITIONS

SECTION	TOPIC	PAGE
4.0	EMERGENCY CONDITIONS	4-1
4.1	Notification of Unusual Event Classification	4-2
	4.1.1 Initiating Conditions for NUE	4-2
4.2	Alert Classification	4-4
	4.2.1 Initiating Conditions for an Alert Emergency	4-4
4.3	Site Area Emergency Classification	4-6
	4.3.1 Initiating Conditions for a Site Area Emergency	4-6
4.4	General Emergency Classification	4-9
	4.4.1 Initiating Conditions for a General Emergency	4-9
TABLE 4-1	Initiating Conditions and Emergency Action Levels	4-11
I.	REACTOR AND REACTOR COOLANT SYSTEM	4-11
	A. RCS Leakage and Loss of Coolant Accident (LOCA)	4-11,12,13
	B. Steam Generator Tube Leakage/Rupture	4-13,14
	C. Reactor Core Degradation and Fuel Damage	4-14,15,16
	D. Reactor Coolant System	4-16
II.	MAIN STEAM SYSTEM	4-16
III.	FIRE	4-17
IV.	RADIOLOGICAL EFFLUENT MONITORING AND RADIATION MONITORING	4-17,18,19
V.	CONTROL ROOM INACCESSIBILITY	4-19
VI.	ELECTRICAL DISTRIBUTION SYSTEM	4-20
VII.	NATURAL PHENOMENA	4-21
VIII.	MAN-MADE HAZARDS	4-22
IX.	CONTAMINATED INJURED INDIVIDUAL	4-23
X.	INDICATION AND ALARMS	4-23
XI.	EMERGENCY CORE COOLING SYSTEM (ECCS)	4-23
XII.	SECURITY	4-23,24
XIII.	PLANT PROTECTION SYSTEMS	4-24
XIV.	CONTAINMENT	4-24
XV.	ENGINEERED SAFETY FEATURE OR FIRE PROTECTION SYSTEM	4-25
XVI.	FEEDWATER AND CONDENSATE SYSTEMS	4-25
XVII.	GENERAL PLANT CONDITIONS	4-25,26
XVIII.	GENERAL EQUIPMENT DAMAGE	4-26
XIX.	RECOVERY PHASE	4-26

15

15

4.0 EMERGENCY CONDITIONS

Through the correct design, manufacturer, operation, and maintenance of the Indian Point No. 3 Nuclear Facility, the probability of a major and very serious emergency occuring with significant offsite consequences is considered to be extremely small. However, these emergencies, although considered unlikely, as well as other accidents and emergencies with a greater probability of occurrence, have been postulated and analyzed to ensure the IP-3 emergency organization and maintained emergency facilities and equipment will adequately mitigate any adverse radiological effects these emergencies may have on Indian Point Station personnel, the environment, and the general population.

The Emergency Plan characterizes four classes of emergency situations which consist of mutually exclusive groupings covering a spectrum of possible emergency situations. The four emergency classifications as described in NUREG-0654 (Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, Appendix 1), and this section are:

Notification of Unusual Event
Alert Emergency
Site Area Emergency
General Emergency

These classification descriptions will provide the individuals responsible for declaring an emergency class the guidance for, and an overall understanding of emergency action levels and associated implementation criteria. Sections 4.1, 4.2, 4.3 and 4.4 list each classification category and include a definition for that category, examples of initiating conditions and the individuals responsible for declaring the emergency class.

Table 4-1, "Initiating Conditions and Emergency Action Levels", provides a list of the initiating conditions pertaining to specific plant systems, the possible indications to operators of each of the initiating conditions, and the appropriate emergency classifications. Table 4-1 includes, in addition to initiating conditions for plant systems, initiating conditions for fires, natural phenomena, man-made hazards, contaminated injured individuals, and security compromises. Postulated accidents in Section 14 of the Indian Point No. 3 Final Safety Analysis Report (FSAR) have been incorporated into Table 4-1.

4.1 NOTIFICATION OF UNUSUAL EVENT CLASSIFICATION

Unusual Events are situations in progress or ones which have occurred which indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occur. In this classification, response may involve support from members of the plant staff and/or local services.

The Shift Supervisor or Senior Reactor Operator will declare an Unusual Event when any of the initiating conditions listed below exist or at any time in his judgement plant status warrants such a declaration.

4.1.1 Initiating Conditions for Notification of an Unusual Event

1. Emergency Core Cooling System (ECCS) initiated and discharged to vessel with respect to the following bonafide emergencies:

   a) Loss of reactor coolant to containment.

   b) Exceeding primary/secondary leak rate Technical Specification.

   c) Steam break upstream of the main steam line isolation valves or feedwater break downstream of check valve.

   d) Main steam break downstream of the main steam line isolation valves.

2. a) Instantaneous radiological gaseous effluent Technical Specification limits exceeded by a factor of 2 when averaged over one hour (Tech. Spec. Appendix B, Section 2.4.1).

   b) Accidental release of waste liquid in excess of two times the Technical Specification limits when averaged over one hour. (Tech. Spec. Appendix B, Section 2.3.1)

3. a) Fuel damage indication from RCS activity samples in excess of Technical Specifications (e.g. chemist sample or failed fuel monitor reading).

   b) High coolant activity sample (e.g. exceeding coolant Technical Specifications for iodine spike).

4. RCS temperature and/or pressure exceeding Technical Specification limits or RCS pressure greater than 2735 psig.

5. Exceeding RCS leak rate Technical Specification limits of 10 gpm from a known source or 1 gpm from an unknown source.

6. Failure of safety or relief valve in a safety related system to close following reduction to applicable pressure.

7. Loss of offsite power or loss of onsite AC power capability.

14

8. Loss of containment integrity requiring shutdown by Technical Specifications.

9. Loss of engineered safety feature or fire protection system function requiring shutdown by Technical Specifications.

10. Fire within the plant not affecting safety systems that lasts greater than 10 minutes.

11. Rod ejection.

12. Rapid depressurization of PWR secondary side.

13. Indications or alarms on process or effluent parameters not functional in Control Room to an extent requiring plant shutdown or other significant loss of assessment or communication ability.

14. Security threat, attempted entry or attempted sabotage. (Bomb threats specifically threatening the physical safety of the Indian Point Station which result in the actual discovery of a bomb or which require use of offsite assistance are included in this classification.)

15. Natural phenomenon, beyond usual levels, being experienced or projected at the plant (e.g. earthquake detected on station seismic instrumentation, hurricane, tornado, or flood).

16. Significant hazards being experienced or projected onsite or in close proximity to the site (e.g. aircraft crash, derailment of train onsite, near or onsite toxic or flammable gas release, near or onsite explosion, main turbine rotating component failure causing rapid plant shutdown).

17. Other plant conditions exist that warrant increased awareness on the part of NRC, State and Local offsite authorities or require plant shutdown under Appendix A Technical Specification requirements or involve other than controlled shutdown or trip.

18. Transportation of a radiologically contaminated injured individual from the site to an offsite hospital.

4.2 ALERT CLASSIFICATION

The Alert class involves specific events that are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels.

The Shift Supervisor or Senior Reactor Operator will declare an Alert Emergency when any of the initiating conditions listed below exist or at anytime in his judgement plant status warrants such a declaration.

4.2.1 Initiating Conditions for an Alert Emergency

1. Total loss of offsite power and a total loss of onsite AC power. (See Site Area Emergency for extended loss.)

2. Total loss of all onsite DC power. (See Site Area Emergency for extended loss.)

3. Complete loss of any function needed for plant cold shutdown.

4. Failure of the reactor protection system to initiate and complete a reactor trip which brings the reactor subcritical.

5. Fire potentially affecting safety systems.

6. Most or all alarms (annunciators) lost.

7. On-going security compromise.

8. Severe natural phenomena being experienced or projected at the plant:

   a) Earthquake, greater than design basis earthquake levels.
   b) Flood, near design levels.
   c) Any tornado striking facility.
   d) Hurricane winds near design basis level.

9. Hazards being experienced or projected on the facility:

   a) Aircraft crash on facility.

   b) Missile impacts from whatever source on facility.

   c) Known explosion damage to facility affecting plant operation.

   d) Entry into facility environs of toxic or flammable gases except normal operations and scheduled deliveries.

   e) Turbine failure causing casing penetration.

10. Evacuation of the Control Room is anticipated or required with control of shutdown systems established from local stations.

11. Severe loss of fuel cladding:

    a. Very high coolant activity sample (e.g. in excess of 300 uCi/cc equivalent of I-131).

    b. Failed fuel monitor indicates increase greater than 1% fuel failures within 30 minutes or 5% total fuel failures.

12. Rapid gross failure of one steam generator tube with loss of offsite power.

13. Rapid failure of steam generator tubes of sufficient magnitude to automatically initiate safety injection on low pressurizer pressure.

14. Main steam line break of significant proportion coincident with a primary to secondary leak rate that would release radioactive material to the environment in excess of Technical Specification limits.

15. Primary coolant leak rate greater than 50 gpm.

16. Radiation levels or airborne contamination which indicate a severe degradation in the control of radioactive materials (e.g. increase of a factor of 1000 in direct radiation readings within facility).

17. Reactor coolant pump with locked rotor which causes fuel failure.

18. Fuel damage accident with the release of radioactivity to containment and/or fuel handling building.

19. Radiological effluents greater than 10 times Technical Specification instantaneous limits when averaged over one hour. 15

20. Any abnormal plant conditions not covered above, which in the opinion of the Shift Supervisor warrant precautionary activation of the Technical Support Center (TSC), the Operations Support Center (OSC), and the Emergency Operations Facility (EOF).

4.3 SITE AREA EMERGENCY CLASSIFICATION

A Site Area Emergency is a class which involves events that are in process or have occured which involve actual or likely major failures of plant functions needed for protection of the public. Radiological conditions outside of the IP-3 protected area but within the exclusion area could possibly present a radiological hazard to personnel, and in this instance, the IP-3 Emergency Director may assume control of emergency actions on both sites including shutdown and evacuation as required.

The Shift Supervisor or Senior Reactor Operator will declare a Site Area Emergency when any of the initiating conditions listed below exist or at any time in his judgement plant status warrants such a declaration.

4.3.1 Initiating Conditions for a Site Area Emergency

1. Loss of coolant accident that exceeds the capacity of the two operable charging pumps.

2. Degraded core with possible loss of coolable geometry.

3. Rapid failure of steam generator tubes (greater than 200 gpm leakage) with loss of offsite power.

4. Main steam line break with greater than 50 gpm primary to secondary leak and indication of fuel damage.

5. Loss of offsite power and loss of onsite AC power for more than 15 minutes.

6. Loss of all vital onsite DC power for more than 15 minutes.

7. Complete loss of any function needed for plant hot shutdown condition.

8. Transient requiring operation of shutdown systems with the failure of the reactor to trip (continued power generation but no core damage immediately evident).

9. a. Major damage to spent fuel in either the containment or fuel storage building. (This will cause the plant vent radiation monitor (R-14) to peg offscale.)

   b. Loss of spent fuel coolant.

10. Fire compromising the functions of safety systems.

11. Most or all alarms (annunciators) lost and plant transient initiated or in progress.

12. Effluent monitors (R-14, R-24/R-24A, R-27 or H.P. reading on plant vent) detect levels corresponding to greater than 50 mR/hr. for ½ hour <u>or</u> greater than 500 mR/hr. WB for 2 minutes (or five times these levels to the thyroid) at the site boundary for <u>adverse meteorology</u>. (Any one or more of the following conditions would be cause for a declaration of a Site Area Emergency.)

    a. R-14 offscale for ½ hour.
       Plant vent reading greater than 40 mR/hr. on contact for 2 minutes.
       R-24/R-24A onscale.
       R-27 reads greater than 1.28 E+5 uCi/sec. for ½ hr.
       R-27 reads greater than 1.28 E+6 uCi/sec. for more than 2 minutes.

    b. R-25, R-26 greater than or equal to 1000 R/hr.

    c. Site Boundary surveys detect:

       WB (Gamma): Greater than 50 mR/hr. for ½ hr.
       Greater than 500 mR/hr. for 2 minutes.
       Iodine : Greater than 250 mR/hr. breathed for ½ hr. (based on dose projection).
       Greater than 2500 mR/hr. breathed for 2 minutes (based on dose projection).

13. Security threat involving the imminent loss of physical control of the plant.

14. Severe natural phenomena being experienced while plant is not in cold shutdown:

    a) Earthquake greater than design basis levels (0.15g horizontal and 0.10g vertical).

    b) Flood greater than design levels (12.5 feet) causing loss of protection of vital equipment at lower levels.

    c) Winds in excess of design levels (90 mph) which affect the facility.

15. Hazards being experienced or projected with plant not in cold shutdown:

    a) Aircraft crash affecting vital structures by impact or fire.

    b) Severe damage to safe shutdown equipment from missiles or explosion.

    c) Entry of uncontrolled flammable gases into vital areas. Entry of uncontrolled toxic gases into areas where lack of access to the area constitutes a safety problem.

16. Evacuation of Control Room and control of shutdown systems established from local stations in 15 minutes.

13

4.4 GENERAL EMERGENCY

A General Emergency is a class which involves events that are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity.

Thyroid and/or whole body doses outside of the protected area but within the exclusion area may present a radiological hazard to personnel, and in that instance, the IP-3 Emergency Director may assume control of emergency actions on both the IP-3 and IP-2 sites including shutdown and/or evacuation as required.

The Shift Supervisor or Senior Reactor Operator will declare a General Emergency when any of the initiating conditions listed below exist or at any time in his judgement plant status warrants such a declaration.

4.4.1 Initiating Conditions for a General Emergency

1. Effluent monitors (R-14, R-24/R-24A, R-27, or HP reading on plant vent) detect levels corresponding to 1 R/hr. WB or 5 R/hr. thyroid at the site boundary under actual meteorological conditions or high range containment monitors (R-25, R-26) indicate levels corresponding to the above and with an anticipated loss of containment integrity. 13

   a. Indications from effluent monitors or environmental survey results:

      Noble Gas dose rate greater than or equal to 1 R/hr. (limiting case).
      Iodine dose rate greater than or equal to 5 R/hr. (use chemistry sample ratio do not use assumed ratio).

   b. High Range Containment Monitor (R-25, R-26) (R/hr.)

where R-25, R-26	Greater than or equal to	1000 R/hr. and	anticipated loss of containment integrity.

13

2. Loss of two out of three fission product barriers with a potential loss of the third barrier (e.g. LOCA with substantial core damage and a potential loss of containment integrity).

3. Loss of physical control of the plant.

4. Other plant conditions exist, from whatever the source, that make the release of large amounts of radioactivity in a short period of time possible (e.g.,

   a) Small and large LOCA's with failure of ECCS to perform leading to severe core degradation or melt in from minutes to hours. Ultimate failure of containment likely for melt sequences. (Several hours likely to be available to complete protective actions unless containment is not isolated.)

b) Any transient initiated by loss of feedwater and condensate systems followed by failure of auxiliary feedwater system for extended periods that makes the release of large amounts of radioactivity in a short period of time probable.

c) Transient requiring operation of shutdown systems with failure to trip which results in core damage or additional failure of core cooling and makeup systems (which could lead to core melt).

d) Any failure of offsite and onsite power along with total loss of auxiliary feedwater for several hours, would lead to eventual core melt and likely failure of containment.

e) Small LOCA and initially successful ECCS. (Subsequent failure of containment heat removal systems over several hours could lead to core melt and likely failure of containment.)

5. Fire which causes plant conditions that make the release of large amounts of radioactivity in a short period of time probable or the loss of physical control of the plant.

6. Any major natural phenomenon that makes the release of large amounts of radioactivity in a short period of time probable.

7. Any major internal or external hazards which could cause massive common damage to plant systems resulting in plant conditions that make the release of large amounts of radioactivity in a short period of time probable.

TABLE 4-1
INITIATING CONDITIONS AND EMERGENCY ACTION LEVELS

INITIATING CONDITIONS	POSSIBLE INDICATIONS TO OPERATORS	EMERGENCY CLASSIFICATION	REFERENCE PLANT EMERGENCY PROCEDURES	PROTECTIVE ACTION RECOMMENDATIONS*
I. RFACTOR AND REACTOR COOLANT SYSTEM				
A. RCS Leakage and Loss of Coolant Accident (LOCA)				
1. Exceeding primary system leak rate Technical Specifications.	a. Uncontrolled leakage from unknown source > 1 gpm (excluding RCP seal leakage and leakage to closed systems). b. Uncontrolled leakage from known sources > 10 gpm (excluding RCP seal leakage and leakage to closed systems).	NOTIFICATION OF UNUSUAL EVENT	E-0 E-1 SOP-RCS-4	
2. Failure of safety or relief valve in a safety related system to close following reduction to applicable pressure.	a. Pressurizer relief valve open, indications: i. Valve position indicator ii. Accoustical monitor iii. Temperature indicator b. Pressurizer safeties open, indications: i. Temperature indicator ii. Accoustical monitor	NOTIFICATION OF UNUSUAL EVENT	E-0 E-1 SOP-RCS-5 SOP-RCS-4 ONOP-RCS-2	
3. Rod ejection.	a. Rod position indicators - off normal. b. High and increasing V.C. temperature, pressure, and humidity. c. High containment radiation alarms.	ALERT	ONOP-RC-1B E-0 E-1	
4. Primary coolant leak rate greater than 50 gpm.	a. Leakage calculations per SOP-RCS-5 indicate greater than 50 gpm. b. Excessive charging flow. c. Increasing readings on containment radioactivity monitors (R-11 & R-12). d. Increasing containment humidity.	ALERT	E-0 E-1 SOP-RCS-5	

* The recommendations listed here are extremely conservative and are based on worst case plant conditions and meteorology and no prognosis for the termination of the emergency in the short term. Each accident must be reviewed independently and protective actions based on that reality.

13

TABLE 4-1
INITIATING CONDITIONS AND EMERGENCY ACTION LEVELS

INITIATING CONDITIONS	POSSIBLE INDICATIONS TO OPERATORS	EMERGENCY CLASSIFICATION	REFERENCE PLANT EMERGENCY PROCEDURES	PROTECTIVE ACTION RECOMMENDATIONS*
I. REACTOR AND REACTOR COOLANT SYSTEM (CONT'D)				
A. RCS Leakage and Loss of Coolant Accident (LOCA) (Cont'd)				
5. Known loss of coolant Accident that exceeds the capacity of the two operable charging pumps.	a. Pressurizer low pressure reactor trip. b. Pressurizer low pressure safety injection signal. c. Increasing containment pressure. d. Increasing containment humidity. e. Increasing recirculation and containment sump levels. f. High containment radiation levels.	SITE AREA EMERGENCY	E-0 E-1	
6. Any plant condition following a LOCA that makes the release of large amounts of radioactivity in a short period of time possible. Examples:				
a. Loss of two out of three fission product barriers with a potential loss of the third barrier, (e.g., LOCA with substantial clad damage and a potential loss of containment integrity).	a. LOCA identified above, and R-25/R-26 > 1000 R/hr.	GENERAL EMERGENCY	E-0	-Shelter 2 mile radius. -Shelter 5 miles downwind. -See Attachment 6.1 of IP-1017.
b. Known small LOCA and initially successful ECCS. Subsequent failure of containment heat removal systems over several hours could lead to core melt and likely failure of containment.	b. Calculation in IP-1001 indicates: 1. NG dose rate > 1R/hr. at Site Boundary. 2. I dose rate > 5R/hr. at Site Boundary.	GENERAL EMERGENCY	E-0 E-1	-Shelter 2 mile radius. -Shelter 5 miles downwind.

* The recommendations listed here are extremely conservative and are based on worst case plant conditions and meteorology and no prognosis for the termination of the emergency in the short term. Each accident must be reviewed independently and protective actions based on that reality.

TABLE 4-1
INITIATING CONDITIONS AND EMERGENCY ACTION LEVELS

INITIATING CONDITIONS	POSSIBLE INDICATIONS TO OPERATORS	EMERGENCY CLASSIFICATION	REFERENCE PLANT EMERGENCY PROCEDURES	PROTECTIVE ACTION RECOMMENDATIONS*
I. REACTOR AND REACTOR COOLANT SYSTEM (CONT'D)				
A. RCS Leakage and Loss of Coolant Accident (LOCA) (Cont'd)				
c. Small and large LOCAs with failure of ECCS to perform, leading to severe clad degradation or melt in from minutes to hours. Ultimate failure of containment likely for melt sequences. (Several hours likely to be available to complete protective actions unless containment is not isolated.)	c. R-25, R-26 readings > 1000 R/hr.	GENERAL EMERGENCY (Cont'd)	E-0 E-1	-See Attachment 6.1 of IP-1017.
B. Steam Generator Tube Leakage/Rupture				
1. Exceeding primary/secondary leak rate Technical Specification with ECCS initiation.	a. > 0.3 gpm leakage per steam generator > 1 gpm total leakage and ECCS initiation.	NOTIFICATION OF UNUSUAL EVENT	ONOP-SG-1	
2. Rapid gross failure of one steam generator tube with loss of offsite power.	a. Increasing readings or alarm on steam generator blowdown radiation monitor (R-19), steam line monitors R62A, B, C or D. b. Increasing readings or alarm on steam jet air ejector radiation monitor (R-15) and, c. Loss of offsite power.	ALERT	E-0 E-3 ONOP-EL-4 ONOP-SG-1	
3. Rapid failure of steam generator tubes of sufficient magnitude to automatically initiate safety injection on low pressurizer pressure.	a. Low pressurizer pressure safety injection. b. Increasing reading or alarm on steam generator blowdown radiation monitor (R-19) or steam line monitors R62A, B, C or D. c. Increasing readings or alarm on steam jet air injector radiation monitor (R-15).	ALERT	E-0 E-3	

* The recommendations listed here are extremely conservative and are based on worst case plant conditions and meteorology and no prognosis for the termination of the emergency in the short term. Each accident must be reviewed independently and protective actions based on that reality.

13

TABLE 4-1
INITIATING CONDITIONS AND EMERGENCY ACTION LEVELS

INITIATING CONDITIONS	POSSIBLE INDICATIONS TO OPERATORS	EMERGENCY CLASSIFICATION	REFERENCE PLANT EMERGENCY PROCEDURES	PROTECTIVE ACTION RECOMMENDATIONS*
I. REACTOR AND REACTOR COOLANT SYSTEM (CONT'D)				
B. Steam Generator Tube Leakage/Rupture (Cont'd)				
4. Rapid failure of steam generator tubes as described above, with a loss of offsite power.	a. Same as 5 above, with loss of offsite power.	SITE AREA EMERGENCY	E-0 E-3 ONOP-EL-4	
C. Reactor Core Degradation and Fuel Damage				
1. Fuel damage as indicated by:				
a. High coolant activity sample (e.g., exceeding coolant Technical Specifications for Iodine spike).	a. Same as initiating conditions. b. GFFD alarm and lab analysis which indicates an increase on failed fuel.	NOTIFICATION OF UNUSUAL EVENT	ONOP-RCS-4	
2. Severe loss of fuel cladding:				
a. Very high coolant activity sample (e.g., in excess of 300 uCi/cc equivalent of I-131).	a. Same as initiating conditions.	ALERT	ONOP-RCS-4	
3. Fuel damage accident with release of radioactivity to containment and/or fuel storage building.	a. Observation of fuel damage. b. Iodine in plant vent > 300 uCi/cc I-131. c. High and increasing V.C. temperature, pressure and humidity. d. High containment or fuel handling building radiation alarms.	ALERT	ONOP-RM-2 ONOP-RP-1 ONOP-RP-2 ONOP-RCS-4	

* The recommendations listed here are extremely conservative and are based on worst case plant conditions and meteorology and no prognosis for the termination of the emergency in the short term. Each accident must be reviewed independently and protective actions based on that reality.

TABLE 4-1
INITIATING CONDITIONS AND EMERGENCY ACTION LEVELS

INITIATING CONDITIONS	POSSIBLE INDICATIONS TO OPERATORS	EMERGENCY CLASSIFICATION	REFERENCE PLANT EMERGENCY PROCEDURES	PROTECTIVE ACTION RECOMMENDATIONS*
I. REACTOR AND REACTOR COOLANT SYSTEM (CONT'D)				
C. Reactor Core Degradation and Fuel Damage (Cont'd)				
4. Main steam line break with greater than 50 gpm primary to secondary leak and indication of fuel damage.	a. Main steam line break, and b. Primary to secondary leak > 50 gpm. c. Fuel damage as indicated in Step C.1.	SITE AREA EMERGENCY	E-0 E-3 E-1/E-2 ONOP-ES-1 ONOP-SG-1	-Consider Protective Actions based on actual magnitude of damage or expected damage. -Precautionary shelter out to 5 miles (downwind ERPAs).
5. Degraded core with possible loss of coolable geometry.	a. Core exit thermocouples > 600°F, or b. RCS temperature approaching saturation or saturated and c. Degraded core are indicated in Steps C.1 and C.2 above.	SITE AREA EMERGENCY	E-0 FR-C.1	
6. Major damage to spent fuel in either the Containment or Fuel Storage Building (it will cause the plant vent radiation monitor (R-14) to peg offscale).	a. R-14 offscale. b. R-5 (Fuel Storage Building) > 15 mR/hr. c. R-2 (Containment) > 75 mR/hr. d. R-7 (Containment) > 75 mR/hr. e. R-25, R-26 show increase. f. Increasing readings or alarms on containment radioactivity monitors (R-11 and R-12).	SITE AREA EMERGENCY	ONOP-RM-2 ONOP-RP-1 ONOP-RP-2	
7. Loss of spent fuel coolant.	a. Spend fuel pool level alarm with water level anticipated to decrease below top of fuel. b. High radiation alarm ARM-R-5.	SITE AREA EMERGENCY	ONOP-SFP-1	-Consider precautionary sheltering out to 2 miles depending on age of fuel and expected time to reinstitute cooling.

* The recommendations listed here are extremely conservative and are based on worst case plant conditions and meteorology and no prognosis for the termination of the emergency in the short term. Each accident must be reviewed independently and protective actions based on that reality.

13

TABLE 4-1
INITIATING CONDITIONS AND EMERGENCY ACTION LEVELS

INITIATING CONDITIONS	POSSIBLE INDICATIONS TO OPERATORS	EMERGENCY CLASSIFICATION	REFERENCE PLANT EMERGENCY PROCEDURES	PROTECTIVE ACTION RECOMMENDATIONS*
I. REACTOR AND REACTOR COOLANT SYSTEM (CONT'D)				
C. Reactor Core Degradation and Fuel Damage (Cont'd)				
8. Loss of two out of three fission product barriers with a potential loss of the third barrier, (e.g., LOCA with substantial clad damage and a potential loss of containment integrity.	a. LOCA identified in Section I, Step A.4, R-25, R-26 readings > 1000 R/hr.	GENERAL EMERGENCY	E-0 E-1	-Shelter 2 mile radius. -Shelter 5 miles downwind. -See Attachment 6.1 of IP-1017.
D. Reactor Coolant System				
1. RCS temperature and/or pressure exceeding Technical Specification limits in Figure 2.1-1 of the Tech. Specs. or RCS pressure 2735 psig.	a. Same as initiating conditions.	NOTIFICATION OF UNUSUAL EVENT	ONOP-RCS-2	
2. Reactor coolant pump locked rotor which causes fuel failure.	a. RCP locked rotor, and b. Fuel failure as defined in Section I, Step C.1.	ALERT	ONOP-RCS-1 ONOP-RCS-4	
II. MAIN STEAM SYSTEM				
1. Rapid depressurization of PWR secondary side.	a. Same as initiating conditions.	NOTIFICATION OF UNUSUAL EVENT	E-0 E-1/E-2 ONOP-ES-1	
2. Main steam line break of significant proportion coincident with a primary to secondary leak rate that would release radioactive material to the environment in excess of Technical Specification limits.	a. Major steam break (e.g., piping > 6" diameter). b. Significant primary to secondary leakage (e.g., > 10 gpm). c. Increasing readings on one or more steam line monitors (R62A, B, C, D)	ALERT	E-0 E-1/E-2 E-3 ONOP-SG-1 ONOP-ES-1	

* The recommendations listed here are extremely conservative and are based on worst case plant conditions and meteorology and no prognosis for the termination of the emergency in the short term. Each accident must be reviewed independently and protective actions based on that reality.

13

TABLE 4-1
INITIATING CONDITIONS AND EMERGENCY ACTION LEVELS

INITIATING CONDITIONS	POSSIBLE INDICATIONS TO OPERATORS	EMERGENCY CLASSIFICATION	REFERENCE PLANT EMERGENCY PROCEDURES	PROTECTIVE ACTION RECOMMENDATIONS*
III. FIRE				
1. Fire within the plant, not affecting safety systems that lasts 10 minutes.	a. Same as initiating conditions.	NOTIFICATION OF UNUSUAL EVENT	ONOP-FP-1	
2. Fire potentially affecting safety systems.	a. Same as initiating conditions.	ALERT	ONOP-FP-1	
3. Fire compromising the functions of safety systems.	a. Same as initiating conditions.	SITE AREA EMERGENCY	ONOP-FP-1 ONOP-FP-1A	
4. Fire which causes plant conditions that make the release of large amounts of radioactivity in a short period of time probable, or the loss of physical control of the plant.	a. Same as initiating conditions.	GENERAL EMERGENCY	ONOP-FP-1 ONOP-FP-1A	-Evacuate 2 mile radius. -Evacuate 5 miles downwind. -See Attachment 6.1 of IP-1017.
IV. RADIOLOGICAL EFFLUENT MONITORING AND RADIATION MONITORING				
1. Instantaneous radiological effluent Tech. Spec. limits exceeded by a factor of 2 averaged over one hour.	a. Exceeds instantaneous setpoint of R-14 or R-27 by a factor of two. (Tech Spec, Appendix B, Section 2.4.1) (over one hour)	NOTIFICATION OF UNUSUAL EVENT	ONOP-RM-2	
2. Accidental release of waste liquid in excess of two times the Tech. Spec. limits, averaged over one hour.	a. See Technical Specifications, Appendix B, Section 2.3.1. R-18, R-19	NOTIFICATION OF UNUSUAL EVENT		
3. Radiation levels of airborne contamination which indicate a severe degradation in the control of radioactive materials (e.g., increase of a factor of 1000 in direct radiation readings within the facility).	a. Same as initiating conditions.	ALERT		

* The recommendations listed here are extremely conservative and are based on worst case plant conditions and meteorology and no prognosis for the termination of the emergency in the short term. Each accident must be reviewed independently and protective actions based on that reality.

TABLE 4-1
INITIATING CONDITIONS AND EMERGENCY ACTION LEVELS

INITIATING CONDITIONS	POSSIBLE INDICATIONS TO OPERATORS	EMERGENCY CLASSIFICATION	REFERENCE PLANT EMERGENCY PROCEDURES	PROTECTIVE ACTION RECOMMENDATIONS*
IV. RADIOLOGICAL EFFLUENT MONITORING AND RADIATION MONITORING (CONT'D)				
4. Radiological effluents greater than 10 times Technical Specification limits when averaged over one hour. 15	a. R-14, R-27 reading averaged over one hour. Reading at site boundary of greater than .5 mR/hr. for one hour. 15	ALERT		
5. Effluent monitors (R-14, R-24 and R-24A, R-27) H.P. reading on plant vent detect levels corresponding to greater than 50 mR/hr. for ½ hour or greater than 500 mR/hr. WB for 2 minutes (or five times these levels to the thyroid) at the site boundary for adverse meteorology. No loss of Containment is anticipated.	a. Any one or more of the following conditions would be cause for a declaration of a Site Area Emergency. i. R-14 offscale for ½ hour. Plant vent reading > 40 mR/hr. on contact for 2 minutes. R-24 and R-24A onscale. R-27 reads ≥ 1.28 E5 uCi/sec. for ½ hr. R-27 reads ≥ 1.28 E6 uCi/sec. for more than 2 minutes. ii. R-25, R-26 ≥ 7.9×10^4 R/hr. for ½ hr. or more. R-26, R-26 ≥ 7.9×10^5 R/hr. for 2 minutes or more. iii. Site Boundary surveys detect: WB(γ): > 50 mR/hr. for ½ hour; > 500 mR/hr. for 2 minutes Iodine: > 250 mR/hr. breathed for ½ hr. (based on dose projection); > 2500 mR/hr. breathed for 2 minutes (based on dose projection)	SITE AREA EMERGENCY		-See Attachment 6.3 of IP-1017 (PAGs).

* The recommendations listed here are extremely conservative and are based on worst case plant conditions and meteorology and no prognosis for the termination of the emergency in the short term. Each accident must be reviewed independently and protective actions based on that reality.

TABLE 4-1
INITIATING CONDITIONS AND EMERGENCY ACTION LEVELS

INITIATING CONDITIONS	POSSIBLE INDICATIONS TO OPERATORS	EMERGENCY CLASSIFICATION	REFERENCE PLANT EMERGENCY PROCEDURES	PROTECTIVE ACTION RECOMMENDATIONS*
IV. RADIOLOGICAL EFFLUENT MONITORING AND RADIATION MONITORING (CONT'D)				
6. Effluent monitors, (R-14, R-24 and R-24A, R-27) H.P. reading on plant vent detect levels corresponding to 1 R/hr. WB or 5 R/hr. thyroid at the site boundary under actual meteorological conditions or R-10, R-25, R-26 indicate levels corresponding to the above conditions and anticipated loss of containment integrity.	i. Indications from effluent monitors or environmental survey results: Noble gas dose rate ≥ 1 R/hr. (limiting case) Iodine dose rate ≥ 5 R/hr. (use chemistry sample ratio do not use assumed ratio). ii. Readings on R-25, R-26 > 1000 R/hr.	GENERAL EMERGENCY	ONOP-RM-2	-Evacuate 2 miles downwind. -Shelter 2 miles radius. -Shelter 5 miles downwind. -See Attachment 6.1 of IP-1017.
V. CONTROL ROOM INACCESSIBILITY				
1. Evacuation of the Control Room is anticipated or required with control of shutdown systems established from local stations.	a. Same as initiating conditions.	ALERT	ONOP-RPC-2	
2. Evacuation of the Control Room and control of shutdown systems not established from local stations in 15 minutes.	a. Same as initiating conditions.	SITE AREA EMERGENCY	ONOP-RPC-2	
3. Loss of physical control of the plant.	a. Same as initiating conditions.	GENERAL EMERGENCY	ONOP-RPC-2	-Evacuate 2 mile radius. -Evacuate 5 miles downwind. -See Attachment 6.1 of IP-1017.

* The recommendations listed here are extremely conservative and are based on worst case plant conditions and meteorology and no prognosis for the termination of the emergency in the short term. Each accident must be reviewed independently and protective actions based on that reality.

13

TABLE 4-1
INITIATING CONDITIONS AND EMERGENCY ACTION LEVELS

INITIATING CONDITIONS	POSSIBLE INDICATIONS TO OPERATORS	EMERGENCY CLASSIFICATION	REFERENCE PLANT EMERGENCY PROCEDURES	PROTECTIVE ACTION RECOMMENDATIONS*
VI. ELECTRICAL DISTRIBUTION SYSTEM				
1. Loss of offsite power or loss of onsite AC power capability.	a. Same as initiating conditions.	NOTIFICATION OF UNUSUAL EVENT	ONOP-EL-4	
2. Loss of offsite power and a loss of all onsite AC power (see Site Area Emergency for extended loss).	a. Same as initiating conditions.	ALERT	ONOP-EL-4	
3. Loss of all onsite DC power (see Site Area Emergency for extended loss).	a. Same as initiating conditions.	ALERT	ONOP-EL-4	
4. Loss of offsite power and loss of onsite AC power for more than 15 minutes.	a. Same as initiating conditions.	SITE AREA EMERGENCY	ONOP-EL-4	
5. Loss of all vital onsite DC power for more than 15 mins.	a. Same as initiating conditions.	SITE AREA EMERGENCY	ONOP-EL-4	
6. Any failure of offsite and onsite power along with a total loss of auxiliary feedwater, for several hours, would lead to eventual core melt and likely failure of Containment.	a. Same as initiating conditions.	GENERAL EMERGENCY	FR-H.1 ONOP-EL-4	-Shelter 2 mile radius. -Shelter 5 miles downwind. -See Attachment 6.1 of IP-1017.

* The recommendations listed here are extremely conservative and are based on worst case plant conditions and meteorology and no prognosis for the termination of the emergency in the short term. Each accident must be reviewed independently and protective actions based on that reality.

TABLE 4-1
INITIATING CONDITIONS AND EMERGENCY ACTION LEVELS

INITIATING CONDITIONS	POSSIBLE INDICATIONS TO OPERATORS	EMERGENCY CLASSIFICATION	REFERENCE PLANT EMERGENCY PROCEDURES	PROTECTIVE ACTION RECOMMENDATIONS*
VII. NATURAL PHENOMENA				
1. Natural phenomenon, beyond usual levels, being experienced or projected at the plant (e.g. earthquake - detected on station seismic instrumentation, hurricane, tornado or flood).	a. Same as initiating conditions.	NOTIFICATION OF UNUSUAL EVENT	ONOP-S-1 ONOP-RW-3	
2. Severe natural phenomena being experienced or projected at the plant: a. Earthquake, greater than design basis earthquake levels. b. Flood, near design levels. c. Any tornado striking facility. d. Hurricane winds near design basis level. (sustained winds greater than 80mph)	a. Same as initiating conditions.	ALERT	ONOP-S-1 ONOP-RW-3	
3. Severe natural phenomena being experienced or projected at the plant while not in cold shutdown: a. Earthquake greater than design basis levels (0.15g horizontal and 0.10g vertical). b. Flood greater than design levels (12.5 feet) causing loss of protection of vital equipment at lower levels. c. Sustained winds in excess of design levels (90 mph) or tornadoes that affect the facility.	a. Same as initiating conditions.	SITE AREA EMERGENCY	ONOP-S-1 ONOP-RW-3	
4. Any major natural phenomenon that makes the release of large amounts of radioactivity in a short period of time probable.	a. Same as initiating conditions.	GENERAL EMERGENCY	ONOP-S-1 ONOP-RW-3	-Shelter 2 mile radius. -Shelter 5 miles downwind. -See Attachment 6.1 of IP-1017.

* The recommendations listed here are extremely conservative and are based on worst case plant conditions and meteorology and no prognosis for the termination of the emergency in the short term. Each accident must be reviewed independently and protective actions based on that reality.

TABLE 4-1
INITIATING CONDITIONS AND EMERGENCY ACTION LEVELS

INITIATING CONDITIONS	POSSIBLE INDICATIONS TO OPERATORS	EMERGENCY CLASSIFICATION	REFERENCE PLANT EMERGENCY PROCEDURES	PROTECTIVE ACTION RECOMMENDATIONS*
VIII. MAN-MADE HAZARDS				
1. Significant hazards being experienced or projected onsite or in close proximity to the site.	a. Aircraft crash onsite. b. Uncontrolled toxic or flammable gas release near or onsite. c. Explosion near or onsite. d. Turbine rotating component failure causing rapid plant shutdown. e. Unusual aircraft activity onsite or near the facility.	NOTIFICATION OF UNUSUAL EVENT	ONOP-TG-2 ONOP-FP-1	
2. Hazards being experienced or projected on the facility.	a. Aircraft crash on facility. b. Missile impacts from whatever source on facility. c. Known explosion damage to facility affecting plant operation. d. Entry into facility environs of uncontrolled toxic or flammable gases. e. Turbine failure causing casing penetration.	ALERT	ONOP-TG-2 ONOP-FP-1	
3. Hazards being experienced or projected with plant not in cold shutdown.	a. Aircraft crash affecting vital structures by impact or fire. b. Severe damage to safe shutdown equipment from missiles or explosions. c. Entry of uncontrolled flammable gases into vital areas. Entry of uncontrolled toxic gases into areas where lack of access to the area constitutes a safety problem.	SITE AREA EMERGENCY	ONOP-TG-2 ONOP-FP-1	
4. Any major internal or external hazards which could cause massive common damage to plant systems resulting in plant conditions that make the release of large amounts of radioactivity in a short period of time probable.	a. Same as initiating conditions.	GENERAL EMERGENCY	ONOP-TG-2 ONOP-FP-1	-Shelter 2 mile radius. -Shelter 5 miles downwind. -See Attachment 6.1 of IP-1017.

* The recommendations listed here are extremely conservative and are based on worst case plant conditions and meteorology and no prognosis for the termination of the emergency in the short term. Each accident must be reviewed independently and protective actions based on that reality.

13