4000 SERIES

EMERGENCY PLAN IMPLEMENTING PROCEDURES

NUMBER	TITLE	REV.	EFF. DATE
4101	Unusual Event Actions	1	9/15/81
4102	Alert	7	8/31/82
4103	Site Area Emergency	7	8/31/82
4104	General Emergency	7	8/31/82
4105	Bomb Threat	0	7/20/82
4201	Radiological Dose Assessment	2	12/21/81
4202	Post Accident Sampling	2	3/1/82
4203	EMT #1-In Plant Radiological Sampling and Monitoring	2	6/8/82
4204	EMT #2-Protective Actions for Onsite Personnel	3	6/8/82
4205	EMT #3-Site Boundary Radiological Sampling/Monitoring	1	9/15/81
4206	EMT #4, #5 - Offsite Radiological Sampling and Monitoring	2	12/8/81
4207	Radiological Sampling During An Emergency	0	7/15/81
4208	Aid to Affected Personnel	0	7/15/81
4209	Emergency Operations Re-Entry	0	7/15/81
4210	Emergency Recovery	0	7/15/81
4211	On Call Procedure	2	6/8/82
4212	Drywell/Containment Curie Level Estimation	0	2/19/82
4213	Radiation Protection During Emergencies	0	3/1/82
4214	Unit 1 Reactor Coolant Post Accident Sampling	0	6/1/82
4215	Unit 1 Containment Air Post Accident Sampling	0	6/1/82

4602	Communications Telephone Test	4	8/31/82
4603	Emergency Radiological Equipment Maintenance and Inspection	1	3/18/82
4604	Emergency Call List Surveillance	0	7/15/81
4605	Emergency Operations Facility Ventilation System Filter Testing Annual	0	7/15/81
4606	EOF Emergency Diesel Generator Operability Test	0	7/15/81
4608	EOF Air Lock Operability Test	0	7/15/81
4609	EOF Fire Detection System Test	0	7/15/81
4610	Communications-Radiopaging and Callback Recorder Monthly Test	3	11/26/81
4611	Station PA Speaker Inspection	0	7/15/81
4612	Waterford, State and Tri Town Radio Test	1	10/13/81
4613	Communications-Radiopaging Daily Test	1	9/15/81

NORTHEAST UTILITIES

THE CONNECTICUT LIGHT AND POWER COMPANY
THE HARTFORD ELECTRIC LIGHT COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

MEMO

September 22, 1982
MP-S-3488

TO: E. J. Mroczka
Station Superintendent - Millstone

FROM: E. C. Farrell
Station Services Superintendent - Millstone

SUBJECT: EPIP 4218 "Use of Potassium Iodide (KI) Tablets..."

As you are aware, questions have arisen regarding the administration of KI tablets. I consider the questions significant enough to cancel the procedure.

After resolution of the questions, a revised procedure will be issued if applicable.

SORC Meeting: 82-39 Date: 9-22-82
Cancel EPIP 4218

Station Superintendent

ECF:cjh

cc: NNECo
List S
List SSS
J. A. Sloan
SSCF 12.2.1

NUSCo
J. F. Opeka
R. C. Rodgers
W. H. Buch

0570 2-81

500
UNIT 1 EMERGENCY PROCEDURES

NUMBER	TITLE	REV.	EFF. DATE
OP 501/2501	Emergency Plan Procedure	CANCELLED Replaced by OP 501 OP 2501, ACP 1.15, 4000 Series	7/15/81
OP 501	Incident Assessment and Classification Unit 1	3	10/1/82
OP 502A	Anticipated Transient without Scram	3	4/3/81
OP 502B	Emergency Plant Shutdown	3	9/1/82
OP 503A	Loss of 345KV Transmission	5	2/27/81
OP 503B	Loss of All Station AC Power	3	1/24/81
OP 503C	Loss of Off-Site and On-Site AC Power	0	7/20/81
OP 504	Recirculation System Failures	7	8/24/79
OP 505/2511	Emergency Procedure Fire	7	3/2/82
OP 506	Loss of Coolant	4	8/11/82
OP 507A	Potential Loss of Vacuum	1	7/15/81
OP 507B	Rapid Loss of Vacuum	1	10/17/81
OP 508	Fuel Cladding Failure	3	10/23/81
OP 509	Excessive Radioactivity Levels	5	4/3/81
OP 511A	Plant Shutdown from Outside the Control Room with Initial Phase Performed in Control Room	3	2/27/81
OP 511B	Plant Shutdown from Outside the Control Room	3	2/27/81
OP 511C	Plant Shutdown from Outside the Control Room with Initial Phase Performed in Control Room, Isolation Condenser Unavailable	4	2/27/81
OP 511D	Plant Shutdown from outside the Control Room Isolation Condenser Unavailable	4	2/27/81

OP 512	Rapid & Total Loss of Instrument Air	3	11/7/79
OP 513	Primary Containment High Pressure	8	9/15/82
OP 514A	Natural Occurrences	8	8/5/81
OP 514B	Freezing Temperatures Emergency	3	1/10/78
OP 514C	Procedure - Natural Occurrences Earthquake	1	10/17/81
OP 515	Chemical Monitoring	7	1/24/81
OP 516A	Loss of Feedwater	6	8/25/82
OP 516B	Nuclear Steam System Rupture	2	1/1/80
OP 516C	Control Rod Drive Hydraulic System Rupture	2	9/8/80
OP 516D	Isolation Condenser System Rupture	3	4/4/80
OP 516E	Reactor Clean-Up System Rupture	3	1/2/80
OP 516F	Loss of Feedwater when Operating at 40% Rated Power with the Isolation Condenser Out of Service	2	8/15/79
OP 516G	Scram Discharge Volume Rupture	0	3/10/82
OP 517	Auto Pressure Relief Valve Stuck Open	4	4/15/81
OP 518	Inadvertent Criticality	3	9/10/81
OP 519	Dropped Fuel Bundle	3	8/5/81
OP 520	Inadvertent Removal of Irradiated Parts or Components from the Reactor Vessel or Fuel Pool	0	11/14/76
OP 521	Loss of Water Inventory in Reactor Cavity or Fuel Pool	2	10/23/81
OP 522	Detonation in the Off-Gas System	0	12/22/77
OP 523	Loss of Feed Water Heating	0	7/17/82

E.J. Mroczka
Form Approved by Station Superintendent

12-28-81
Effective Date

STATION PROCEDURE COVER SHEET

A. IDENTIFICATION

Number OP 501 Rev. 3

Title INCIDENT ASSESSMENT AND CLASSIFICATION - UNIT 1

Prepared By Walt Buch

B. REVIEW

I have reviewed the above procedure and have found it to be satisfactory.

TITLE	SIGNATURE	DATE
DEPARTMENT HEAD	W O Ruby	9-28-82

C. UNREVIEWED SAFETY QUESTION EVALUATION DOCUMENTATION REQUIRED:

(Significant change in procedure method or scope as described in FSAR) (If yes, document in PORC/SORC meeting minutes) YES [ ] NO [✓]

ENVIRONMENTAL IMPACT

(Adverse environmental impact) (If yes, document in PORC/SORC meeting minutes) YES [ ] NO [✓]

D. PORC/SORC APPROVAL

PORC/SORC Meeting Number PORC 1-82-79

E. APPROVAL AND IMPLEMENTATION

The attached procedure is hereby approved, and effective on the date below:

R Herbert
Station/Service/Unit Superintendent

10/1/82
Effective Date

SF-301
Rev. 5

Incident Assessment and Classification - Unit 1

Page No.	Eff. Rev.
1 - 16	3

1. OBJECTIVE

This procedure provides guidance for the assessment of initiating events and conditions in order to accurately and efficiently classify emergencies.

2. DISCUSSION

2.1 A categorization of Emergency Action Levels (EAL's) by severity and emergency classification is provided in Table 1, "Incident Classification".

2.2 The authority and responsibility for the assessment, classification and declaration of emergencies initially resides with the Shift Supervisor of the affected Unit until he is relieved as the Director of Station Emergency Operations by the Station, Unit or Station Services Superintendent.

2.3 Emergencies are classified as to the relative hazard associated with the event and/or the potential of a hazardous condition occurring. This procedure enables the operator to determine two things: (1) the NRC emergency classification of an event and (2) the State Incident Class of the event.

2.4 Incidents are classified by referring to the matrix in Table 1 and finding in the INCIDENT DESCRIPTION column the words that best describe the type of incident that has occurred. To the right of the general incident description, specific descriptions for various emergency class events are listed. By matching the specific descriptions to the actual incident which has occurred the NRC emergency classification can be determined by the column heading.

2.5 If the incident is in the UNUSUAL EVENT column, it is then determined whether the State Class Code is ECHO or DELTA. The State Class Code is listed below the incident.
If the incident is in the ALERT column, the State Class Code is always CHARLIE-ONE. If the incident is in the SITE AREA EMERGENCY column, the State Class Code is always CHARLIE-TWO.
If the incident is in the GENERAL EMERGENCY column, it is determined whether the State Class Code is BRAVO or ALPHA. The

ECHO - Unusual event without radioactive releases

DELTA - Unusual event with radioactive releases

Determine the State Class Code for a General Emergency (BRAVO or ALPHA) using the below definitions:

BRAVO - General emergency without major breach in containment integrity, and the estimated site boundary dose is greater than 1 Rem whole body and 5 Rem thyroid.

ALPHA - General emergency with major breach in containment integrity, and the estimated site boundary dose is greater than 5 Rem whole body and 25 Rem thyroid.

NOTE: The State Class Code for an ALERT is CHARLIE-ONE and for a Site Area Emergency it is CHARLIE-TWO.

5.1.5 Use the State Class Code determined in the above steps to make the notifications specified in the 4100 series EPIPs. Always use it whenever discussing the incident severity with Corporate, State or local officials.

NOTE: The State Class Code is used in the State and local emergency plans to determine what protective actions to implement and when to man emergency operating centers.

5.1.5 Use the emergency classification determined above and refer to the appropriate EPIP for the next actions to be taken.

Emergency Classification	EPIP
UNUSUAL EVENT	4101
ALERT	4102
SITE AREA EMERGENCY	4103
GENERAL EMERGENCY	4104

6. SUBSEQUENT ACTION

6.1 As conditions change, consider escalation or de-escalation of the emergency classification and State Class Code using the EAL's and guidance contained in this procedure and applicable Emergency Operating Procedures.

7. FIGURES

Table 1 - Incident Classification - Unit 1.

WB:jms

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
DEFINITION	Events in progress or have occurred which indicate a potential degradation of the level of safety of the plant.	Events in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant.	Events in progress or have occurred which involve actual or likely major failures of plant functions needed for protection of the public.	Events in progress or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity.
STATE CLASS	ECHO or DELTA	CHARLIE ONE	CHARLIE TWO	BRAVO or ALPHA
INCIDENT DESCRIPTION	EMERGENCY ACTION LEVELS			
1. Natural Phenomenon (earthquake, tornado, hurricane, flood)	Direct observation or notification by external agencies or seismic monitors greater than 0.07g or sustained wind speed greater than 75 mph (measured at the 142 ft. elevation) ECHO			

NRC CLASS / INCIDENT DESCRIPTION	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
II. Physical Hazards (Fire, Explosion, toxic or flammable gas release)	Fire lasting more than 10 minutes within the unit. 1. Fire alarms as appropriate or 2. Fire pump start alarms ECHO	Fire having potential of or affecting safety systems. 1. Fire alarm from areas which could affect safety related equipment. CHARLIE-ONE	NA	NA
	Direct observation of other hazards which could endanger the facility (e.g. onsite plane crash, train derailment, explosion, onsite toxic or flammable gas release. ECHO	Direct observation of unanticipated significant hazard which has a relatively high degree of potential for affecting reactor safety and/or significant release. (i.e., aircraft crash, explosion damaging plant structures, uncontrolled entry of toxic or flammable gases onsite) CHARLIE-ONE	NA	NA

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION				
III. Security Threat/ Compromise	Notification by Security of a security threat. ECHO	Notification by Security of an ongoing security compromise. CHARLIE-ONE	Notification by Security of the imminent loss of physical control of station. CHARLIE-TWO	Notification by Security of loss of physical control of the station due to a security incident. BRAVO
IV. Loss of Station Services Power (AC or DC)	AC loss of offsite power or total loss of onsite AC power capability. 1. 4-KV bus trips and reserve Station Service transformer (RSST) undervoltage alarms or 2. Gas turbine and diesels not ready for auto start alarms. ECHO	Loss of offsite power and loss of all onsite AC power. 1. 4-KV bus trips and RSST undervoltage alarms and 2. Gas turbine and diesels not ready for auto start alarms. CHARLIE-ONE	Loss of offsite power and loss of AC power for more than 15 minutes. 1. 4-KV bus trips and RSST undervoltage alarms and 2. Gas turbines and diesels not ready for auto start. CHARLIE-TWO	NA
	DC NA	Loss of all onsite DC power. 1. Battery trouble alarms. CHARLIE-ONE	Loss of all onsite DC power for more than 15 minutes. 1. Battery trouble alarms. CHARLIE-TWO	NA

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION				
V. Plant Safety or Protection System Functions	ECCS initiated with discharge to vessel 1. ECCS pump running annunciator and 2. a. Drywell pressure greater than 2 psig or b. Reactor water level less than 79" above the core ECHO	NA	NA	NA
	Failure of a primary system safety relief valve to close 1. Relief valve discharge high temperature alarm or 2. Torus water high temperature alarm or 3. Relief valve open indication or 4. Acoustic monitor alarm ECHO	NA	NA	NA

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION				
V. Plant Safety or Protection System Functions (contd.)	Loss of engineered safety feature or fire protection system function requiring shutdown by Technical Specifications 1. Determine by Technical Specification LCO's. ECHO	Loss of functions needed for plant cold shutdown 1. Operation beyond the action statements in the Technical Specifications for systems required for cold shutdown. (CHARLIE-ONE) Failure of reactor protection system to initiate and complete a reactor scram which brings the reactor subcritical. 1. Reactor scram alarm with continued indication of power level. (CHARLIE-ONE)	NA	NA
		Loss of all alarms and annuciators for greater than 15 minutes. 1. Direct observation. (CHARLIE-ONE)	All alarms (annunciators) lost and significant abnormal transients in progress. (CHARLIE-TWO)	NA

NRC CLASS / INCIDENT DESCRIPTION	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
V. Plant Safety or Protection System Functions (contd.)	NA	Evacuation of control room anticipated or required with control of shutdown systems from local stations 1. Control room fire occurs or 2. Control room area radiation monitor alarm CHARLIE-ONE	Evacuation of Control room and control of shutdown systems not established from local stations in 15 minutes. 1. Direct observation CHARLIE-TWO	NA
VI. Release of Radioactivity/ High Radiation Levels	NA	High radiation level or high airborne contamination which indicates a severe degradation in the control of radioactive material. For example: Fuel handling accident with release of radioactivity to the reactor building CHARLIE-ONE	NA	NA

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
DESCRIPTION		EMERGENCY ACTION LEVEL		
VI. Release of Radioactivity/ High Radiation Levels (contd.)	NA	Fuel handling accident with release of radioactivity to the reactor building. 1. High range refueling floor area radiation monitor alarm or Continuous air monitor alarm and 2. Direct observation of fuel handling accident. CHARLIE-ONE	Major damage to spent fuel. 1. Area radiation monitor on refueling floor reads greater than 1000 mr/hr. and 2. Direct observation of fuel handling accident. CHARLIE-TWO	NA
	Instantaneous radiological effluent Technical Specification limit exceeded. 1. Liquid effluent monitor alarm or Stack RMS alarm and 2. Analyses indicate limit was exceeded. DELTA	Radiological effluents greater than 10 times technical specification instantaneous limits for more than 15 minutes. 1. Stack radiation monitor alarm. or 2. Liquid effluent radiation monitor alarm. CHARLIE-ONE	Actual or estimated releases corresponding to greater than 50 mr/hr whole body dose at the site boundary, or 250 mr/hr thyroid dose. 1. Stack gas monitor between 4×10^4 cps and 7×10^5 cps or 2. EMT's detect levels of: (cont.)	Radiation monitors detect levels corresponding to 1 to 5 rem whole body dose or 5 to 25 rem thyroid close at the site boundary. 1. Unit 1 stack gas monitor greater than 7×10^5 cps* or offscale * or 2. EMT's detect levels of: (cont'd) *If necessary, dispatch EMT#1 to determine I-131 concentrations and whole body dose rate at the site boundary.

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION	EMERGENCY ACTION LEVEL			
VI. Release of Radioactivity/ High Radiation Levels (contd)	See previous page	See previous page	2. (Cont'd) a. Dose rate greater than 50 mrem/hr OR b. I-131 concentrations greater than $5x10^{-7}$ uCi/cc. CHARLIE-TWO	2. (con't) a. Dose rates greater than 1 rem/hr. b. I-131 concentrations greater than $1x10^{-5}$ uCi/cc. BRAVO Radiation monitors detect levels corresponding to greater than 5 rem whole body dose or greater than 25 rem thyroid dose at the site boundary. OR Unit conditions indicate the probability of 5 rem/hr whole body at site boundary. 1. Unit 1 stack gas monitor offscale* AND 2. EMT's detect levels of: a. Dose rates greater than 5 rem/hr. b. I-131 concentrations greater than $5x10^{-5}$ uCi/cc. ALPHA *If necessary, dispatch EMT #1 to determine I-131 concentrations and whole body dose rate at site boundary.

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION				
I. Primary System/Loss of Fission Product Boundary	NA	Main steam line break 1. Steam flow mismatch alarm and 2. Steam tunnel high temperature alarm (195) and 3. Steam line high radiation alarm (3xN) CHARLIE-ONE	Steamline break outside containment without isolation. 1. Steam flow mismatch alarm and Steam tunnel high temperature alarm (200) and 2. Main steam isolation valve position indication - open. and 3. Steam line high radiation alarm (7xN) CHARLIE-TWO	NA
	Abnormal coolant temperature and/or pressure 1. Primary pressure greater than 1125 psig or 2. Primary temp. less than Technical Specification Limits ECHO	NA	NA	NA

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION	EMERGENCY ACTION LEVEL			
VII. Primary System/Loss of Fission Product Boundary (cont'd)	Exceeding the primary system leak rate Technical Specifications 1. Total drywell leakage greater than 25 gpm or 2. Unidentified leakage greater than 2.5 gpm ECHO	Primary coolant leak rate exceeding 50 gpm 1. Total drywell leakage greater than 50 gpm CHARLIE-ONE	Loss of coolant accident (LOCA) 1. High drywell pressure (2 psi) or 2. Low low reactor water level (79") and ECCS pump running CHARLIE-TWO	LOCA and failure to isolate containment or potential to rupture containment. 1. LOCA (as in site emergency) and 2.a. Drywell pressure remains normal or b. Isolation valve open light indication or c. Drywell pressure exceeded 62 psig BRAVO
	Loss of containment integrity requiring shutdown by Technical Specifications 1. Loss of drywell integrity as determined by Technical Specification LCO's or 2. Equipment failure resulting in inability to isolate containment penetrations. ECHO	NA	NA	NA

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION	EMERGENCY ACTION LEVEL			
VII. Primary System/Loss of Fission Product Boundary (cont.)	Sudden fuel damage indication 1. Air ejector RMS trip ECHO	Severe loss of fuel cladding 1. Offgas air ejector monitor greater than $1x10^5$ mr/hr or 2. Chemistry sampling yields an I-131 dose equivalent greater than 300 uCi/ml in primary coolant CHARLIE-ONE	Degraded core with possible loss of coolable geometry 1. Core less than 2/3 covered alarm. CHARLIE-TWO	Any potential core melt situation 1. LOCA and a. Partial failure of ECCS as indicated by pump and valve status indicators or b. Failure to shutdown as indicated by neutron monitor or 2. Total loss of long term cooling as indicated by pump and valve status indicators for the ECCS and shutdown cooling systems. BRAVO

Unit 2
2500 EMERGENCY PROCEDURES INDEX

NUMBER	TITLE	REV.	EFF. DATE
501/2501	Emergency Plan Procedure	CANCELLED Replaced by OP 501, OP 2501, ACP 1.15, 4000 Series	7/15/81
OP 2501	Incident Assessment and Classification Unit 2	3	10/1/82
2502	Emergency Shutdown (Reactor Trip)	12	11/30/81
2503	Electrical Emergency (Loss of Normal Power)	7	9/3/81
2504	Loss of Reactor Coolant Flow	6	10/23/81
2505	Primary System Leakage	4	7/23/82
2506	Loss-of-Coolant Incident	10	8/13/81
2507	Loss of Condenser Vacuum	4	2/18/81
2508	Loss of Reactor Bldg. Closed Cooling Water	2	2/16/77
2509	Steam Line Rupture	7	10/23/81
2510	Natural Occurrences	5	8/19/80
505/2511	Emergency Procedure Fire	6	4/31/81
2512	Loss of Instrument Air	3	10/24/78
2513	Shutdown from Outside the Control Room	6	4/23/81
2514	Emergency Boration	4	10/23/81
2515	Steam Generator Tube Rupture	9	3/10/82
2516	Steam Generator Chemistry	6	11/28/79
2517	Earthquake	3	9/15/82
2518	Loss of Service Water	3	4/9/82
2519	Electrical Emergency (Loss of Main DC Bus)	4	10/1/82

2520	Fuel Handling Accident Inside Containment	2	4/1/81
2521	Loss of Feedwater/Steam Generators	0	1/1/80

E.J. Mroczka
Form Approved by Station Superintendent

12-28-81
Effective Date

STATION PROCEDURE COVER SHEET

A. IDENTIFICATION

Number OP 2501 Rev. 3

Title INCIDENT ASSESSMENT AND CLASSIFICATION - UNIT 2

Prepared By W. Buch

B. REVIEW

I have reviewed the above procedure and have found it to be satisfactory.

TITLE	SIGNATURE	DATE
DEPARTMENT HEAD	D Scace	9/28/82

C. UNREVIEWED SAFETY QUESTION EVALUATION DOCUMENTATION REQUIRED:

(Significant change in procedure method or scope as described in FSAR) YES [ ] NO [~~X~~]
(If yes, document in PORC/SORC meeting minutes)

ENVIRONMENTAL IMPACT

(Adverse environmental impact) YES [ ] NO [~~X~~]
(If yes, document in PORC/SORC meeting minutes)

D. PORC/~~SORC~~ APPROVAL

PORC/~~SORC~~ Meeting Number 2-82-140

E. APPROVAL AND IMPLEMENTATION

The attached procedure is hereby approved, and effective on the date below:

J. Mallay Jr
Station/Service/Unit Superintendent

10/1/82
Effective Date

SF-301
Rev. 5

INCIDENT ASSESSMENT AND CLASSIFICATION - UNIT 2

Page No	Eff. Rev.
1 - 21	3

1. OBJECTIVE

This procedure provides guidance for the assessment of initiating events and conditions in order to accurately and efficiently classify emergencies.

2. DISCUSSION

2.1 A categorization of Emergency Action Levels (EAL's) by severity and emergency classification is provided in Table 1, "Incident Classification".

2.2 The authority and responsibility for the assessment, classification and declaration of emergencies initially resides with the Shift Supervisor of the affected Unit until he is relieved as the Director of Station Emergency Operations by the on-call Director.

2.3 Emergencies are classified as to the relative hazard associated with the event and or the potential of a hazardous condition occurring. This procedure enables the operator to determine two things: (1) the NRC emergency classification of an event, and (2) the State Incident Class for the event.

2.4 Incidents are classified by referring to the matrix in Table 1 and finding in the INCIDENT DESCRIPTION column the words that best describe the type of incident that has occurred.
To the right of the general incident description, specific descriptions for various emergency class events are listed. By matching the specific descriptions to the actual incident which has occurred the NRC emergency classification can be determined by the column heading.

2.5 If the incident is in the UNUSUAL EVENT column, it is then determined whether the State Class Code is ECHO or DELTA. The State Class Code is listed below the incident.
If the incident is in the ALERT column, the State Class Code is always CHARLIE-ONE. If the incident is in the SITE AREA EMERGENCY column, the State Class Code is always CHARLIE-TWO.
If the incident is in the GENERAL EMERGENCY column, it is determined whether the State Class Code is BRAVO or ALPHA. The

State Class Code is listed below the incident.

3. SYMPTOMS

3.1 Events are in progress or have occured that either indicate an acutal emergency or have the probability of escalating to a level of degradation that affects the level of safety of the unit and/or impacts up on the safety of the public. The potential of an incident escalating must always be considered when classifying the emergency. Table 1 describes various types of events. Symptoms are provided which offer guidance to the Shift Supervisor or Director of Station Emergency Operations in the classification of an incident.

3.2 The Shift Supervisor may have been referred to this procedure by one of the Unit Emergency Procedures.

4. AUTOMATIC ACTION

None

5. IMMEDIATE ACTION

5.1 Shift Supervisor of the Affected Unit

5.1.1 Evaluate conditions, instrument readings and alarms with the assistance of other licensed operators and Plant Equipment Operators. Contact the Shift Technical Advisor for assistance.

5.1.2 Carry out the immediate actions of the applicable emergency procedures.

5.1.3 Refer to the matrix in Table 1 and determine the NRC emergency classification and State emergency classification.

5.1.4 If the incident is not described in the Matrix, make a determination of the NRC emergency classification by using the definitions at the beginning of the table. Then determine the State Class Code. For an Unusual Event (ECHO or DELTA) use the below definitions:

ECHO - Unusual event without radioactive releases

DELTA - Unusual event with radioactive releases

Determine the State Class Code for a General Emergency (BRAVO or ALPHA) using the below definitions:

BRAVO - General emergency without major breach in containment integrity, and the estimated site boundary dose is greater than 1 Rem whole body and 5 rem thyroid.

ALPHA - General emergency with major breach in containment integrity, and the estimated site boundary dose is greater than 5 Rem whole body and 25 Rem thyroid.

The State Class Code for an ALERT is CHARLIE-ONE and for a SITE AREA EMERGENCY it is CHARLIE-TWO.

5.1.5 Use the State Class Code determined in the above steps to make the notifications specified in the 4100 series EPIPs. Always use it whenever discussing the incident severity with Corporate, State or local officials.

NOTE: The State Class Code is used in the State and local emergency plans to determine what protective actions to implement and when to man emergency operating centers.

5.1.6 Use the emergency classification determined above and refer to the appropriate EPIP for the next actions to be taken.

Emergency Classification	EPIP
UNUSUAL EVENT	4101
ALERT	4102
SITE AREA EMERGENCY	4103
GENERAL EMERGENCY	4104

6. SUBSEQUENT ACTION

6.1 As conditions change, consider escalation of the emergency classification and State Class Code using the EAL's and guidance contained in this procedure and applicable Emergency Operating Procedures.

7. FIGURES

Table 1 - Incident Classification - Unit 2.

WB:jms

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
DEFINITION	Events in progress or have occurred which indicate a potential degradation of the level of safety of the plant.	Events in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant.	Events in progress or have occurred which involve actual or likely major failures of plant functions needed for protection of the public	Events in progress or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity
STATE CLASS	ECHO or DELTA	CHARLIE ONE	CHARLIE TWO	BRAVO or ALPHA
INCIDENT DESCRIPTION	EMERGENCY ACTION LEVELS			
I. Natural phenomenon (earthquake, tornado, hurricane, flood)	With the potential to affect the level of safety 1. Direct observation or 2. Notification by external agencies or 3. Seismic monitor >0.07g or 4. Sustained wind speed >75 mph (measured at 142 ft. elevation) ECHO	NA	NA	NA

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION				
II. Physical hazards (fire, explosion, toxic or flammable gas release)	Fire lasting >10 minutes within the unit. 1.a. Fire detection panel alarms or b. Fire pump running alarms and 2. Leads to investigation which determines an actual fire is in progress. ECHO	Fire having potential of or affecting safety systems. 1. Indications of actual fire are received - a. Fire detection panel alarm(s) or b. Fire pump running alarm or c. Visual confirmation and 2. Fire is verified to be in immediate vicinity of safety related systems CHARLIE-ONE	NA	NA
	Hazards which could endanger the facility (e.g. train derailment, explosion, onsite toxic or flammable gas release) ECHO	Unanticipated significant hazard having relatively high degree of potential for affecting reactor safety and/or significant releases to the environment. (e.g. aircraft crash, explosion damaging plant, etc.) CHARLIE-ONE	NA	NA

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION				
III. Security Threat	Notification by Security of a security threat. ECHO	Notification by Security of an ongoing security compromise. CHARLIE-ONE	Notification by Security of the imminent loss of physical control of the station. CHARLIE-TWO	Notification by Security of loss of physical control of the station. BRAVO
IV. Loss of Station Services Power (AC or DC)	AC Loss of all tie lines between switchyard and 345 KV grid, or Total loss of onsite AC power capability 1. All offsite line isolation breakers open or 2.a. Both diesel generators declared inoperable and b. Normal Station Service Transformer unavailable ECHO	Loss of offsite power and Loss of all onsite AC power 1. All offsite line isolation breakers open and 2. Both diesel generator trouble alarms CHARLIE-ONE	Loss of offsite power and Loss of onsite AC power for more than 15 minutes 1. Open breaker indications for offsite lines on the switchyard status panel and 2. Trouble/disabled alarms on both diesel generators CHARLIE-TWO	NA

NRC · CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION				
IV. Loss of Station Services Power (AC or DC)	DC NA	Loss of all onsite vital DC power 1. Both battery trouble alarms CHARLIE-ONE	Loss of all onsite DC power for more than 15 minutes 1. Both battery trouble alarms CHARLIE-TWO	NA
V. Plant Safety or Protection System Functions	ECCS initiated with discharge to vessel 1. SIAS annunciation and 2.a. Pressurizer pressure <1600 psia or b. Containment pressure >5 psig ECHO	NA	NA	NA
	NA	Loss of all alarms or annunciators for greater than 15 minutes. 1. Direct observation CHARLIE-ONE	All alarms (annunciators) lost and significant abnormal transient in progress 1. Direct observation CHARLIE-TWO	NA

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION				
V. Plant Safety or Protection System Functions (cont.)	Failure of a reactor coolant system safety or relief valve to close 1. High temperature alarms (> 180°F) on discharge piping from relief/safety valves and 2.a. Quench tank level, temperature and/or pressure increasing or b. Acoustic monitor alarms ECHO	NA	NA	NA
	NA	Evacuation of control room anticipated or required with control of shutdown systems from local stations. 1. Control Room Chlorine Alarm or 2. Control Room Fire or 3. Control Room ARM alarm. CHARLIE-ONE	Evacuation of control room and control of minimum shutdown systems not established from local stations in 15 minutes. 1. Direct observation CHARLIE-TWO	NA

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION				
V. Plant Safety or Protection System Functions (cont.)	Loss of engineered safety reature or fire protection system function requiring shutdown by technical specification 1. As determined by technical specification LCO's. ECHO	Loss of functions needed for plant cold shutdown 1. Operation beyond the action statements in Technical Specifications for systems required for cold shutdown. CHARLIE-ONE Failure of reactor protection system to initiate and complete a reactor trip which brings the reactor subcritical. 1. Core mimic display indicates a significant number of control element assemblies remaining out of core, coincident with a reactor trip alarm. Temperature (Tavg) or primary system pressure remaining high or rising. CHARLIE-ONE	NA	NA

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION				
VI. Release of Radioactivity/ High Radiation Levels	Instantaneous radiological effluent technical specification limit exceeded. 1.a. MP2 stack monitor alarm or b. Liquid Effluent Monitor Alarm and 2. Analysis indicates limit was exceeded DELTA	Radiological effluents greater than 10 times technical specification instantaneous limits for more than 15 minutes. 1. Stack radiation monitor or liquid effluent radiation monitor alarms CHARLIE-ONE	Actual or estimated releases corresponding to greater than 50 mr/hr whole body dose rate or 250 mr/hr thyroid 1. Unit #1 stack gas monitor between $4x10^4$ cps and $7x10^5$ cps or 2. Unit #2 stack gas monitor greater than $1x10^5$ cps but still on scale or 3. Unit #2 stack interim high range monitor greater than 100 mr/hr and less than 2000 mr/hr or 4. Atmospheric steam dump EMT survey result greater than 20 mr/hr but less than 400 mr/hr or (cont.)	Radiation monitors detect levels corresponding to 1-5 rem whole body dose or 5-25 rem thyroid dose at the site boundary. 1. Unit #1 stack gas monitor greater than $7x10^5$ cps or offscale * or 2. Unit #2 stack gas monitor offscale* or 3. Unit #2 stack interim high range monitor greater than 2 R/Hr or 4. Atmospheric steam dump EMT survey result greater than 400 mr/hr or (cont.) *If necessary, dispatch EMT#1 to determine I-131 concentrations and whole body dose rate at the site boundary.

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION				
VI. Release of Radioactivity/ High Radiation Levels (cont'd)	NA		5. Containment post accident area monitor between 10 R/Hr and 80 R/Hr or 6. EMT's detect levels anywhere offsite of: a. dose rates greater than 50 mrem/hr or b. Iodine-131 concentrations greater than $5x10^{-7}$ uCi/cc. CHARLIE-TWO	5. Containment post accident area monitor greater than 80 R/Hr. 6. EMT's detect levels anywhere offsite of: dose rates greater than 1 rem/hr. or Iodine-131 concentrations greater than $1x10^{-5}$ uCi/cc. BRAVO Radiation Monitors detect levels corresponding to greater than 5 rem whole body or 25 rem thyroid at the site boundary. 1. Unit 1 stack gas monitor offscale* or 2. Unit 2 stack gas interim high range monitor greater than 10 R/hr or 3. Unit 2 stack gas monitor offscale* or (cont'd)

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION				
VI. Release of Radioactivity/ High Radiation Levels (cont'd)	NA	NA	NA	or 4. Atmospheric steam dumps EMT survey result greater than 2000 mR/hr or 5. Containment post accident area monitor greater than 400 R/hr or EMT's detect levels anywhere offsite of dose rates greater than 1 Rem/hr or I-131 concentrations greater than 5 x 10-5 uCi/cc. OR Unit conditions indicate the probability of 5 rem/hr whole body at site boundary. *If necessary, dispatch EMT #1 to determine I-131 to condentrations and whole body dose rate at the site boundary. ALPHA

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION				
VI. Release of Radioactivity/ High Radiation Levels (cont'd)	NA	High radiation level or high airborne contamination which indicates a severe degradation in the control of radioactive material. 1. Unplanned area radiation monitor alarms or 2. Continuous air monitors offscale or greater than 1000 times normal reading CHARLIE-ONE	NA	NA

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION				
VI. Release of Radioactivity/ High Radiation Levels (cont'd)	NA	Fuel handling accident with release of radioactivity to containment or fuel handling building 1.a. Containment ARM alarm or b. Containment air monitor alarm or c. Spent Fuel Pool ARM Alarm or d. Spent Fuel Pool Air Monitor Alarm and 2. Direct observation of fuel handling accident. CHARLIE-ONE	Major damage to spent fuel in containment or fuel handling building 1.a. Containment ARM greater than 1000 mr/hr. or b. Spent fuel ARM greater than 1000 mr/hr. and 2. Direct observation of fuel handling accident. CHARLIE-TWO	NA
VII. Secondary System Failure	Unplanned depressurization of secondary side of steam generators. 1. Steam generator pressure less than 500 psia. ECHO	Steam line break with significant primary to secondary leakage. A. Break Inside Containment 1. Steam generator pressure low alarm and (cont.)	Steamline break with significant primary to secondary leakage and indication of fuel damage. 1. Steam generator pressure low alarm and (cont.)	NA

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION				
VII. Secondary System Failure (cont.)	(See previous page)	2. Containment high pressure/temperature alarm and 3. Containment area or atmosphere radiation monitor alarm and 4. Main steam isolation signal B. Break Outside of Containment 1. Steam generator pressure low alarm and 2. VCT low level alarm and 3. Main steam isolation signal. CHARLIE-ONE	2.a. Air ejector radiation monitor alarm or b. Blowdown radiation monitor alarm and 3. Letdown radiation monitor alarm CHARLIE-TWO	NA

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION				
VIII. Primary System/Loss of Fission Product Boundary	Suddenly exceeding either primary to secondary leak rate technical specification or primary system leak rate technical specification. 1. Primary to secondary leak in either steam generator greater than 0.5 gpm or 2. Primary unidentified leakage greater than 1 gpm or 3. Identified leakage greater than 10 gpm. ECHO	Reactor coolant leak rate greater than the capacity of 1 charging pump 1. Containment atmosphere radiation monitors alarm and 2. Pressurizer level program calls for additional charging pump(s) to start. CHARLIE-ONE	LOCA of coolant accident (LOCA) 1. Low pressurizer pressure alarm and 2. Containment ARM alarm and 3. Air particulate monitor alarms CHARLIE-TWO	LOCA and failure to isolate containment or potential to rupture containment. 1. Low pressurizer pressure alarm and 2. Low pressurizer level alarm and 3. Containment ARM alarms and 4.a. Containment pressure remains normal or b. Isolation valve open light indication or c. Containment hydrogen concentration greater than 4% or c. Containment pressure exceeded 54 psig. BRAVO

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION				
VIII. Primary System/Loss of Fission Product Boundary (cont.)	NA	Rapid failure of many steam generator tubes (e.g. several hundred gpm primary to secondary leak rate) 1. Air ejector radiation monitor alarm and 2. Pressurizer low level alarm and 3. Auto start of additional charging pump. CHARLIE-ONE Rapid gross failure of steam generator tube(s) with loss of offsite power 1. Air ejector monitor alarm and 2.a. Switchyard status panel indicates breakers open for all offsite lines or (cont.)	Rapid failure of many steam generator tubes with loss of offsite power. 1. Air ejector radiation monitor alarm and 2. Sustained depressurization of pressurizer and 3. Low voltage or open breaker indication for all offsite lines. CHARLIE-TWO	NA

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION				
VIII. Primary System/Loss of Fission Product Boundry (cont.)	NA	2.b. Reserve station services transformer fails as indicated by trouble alarm and direct observation CHARLIE-ONE	(See previous page)	NA
	Sudden fuel damage indication 1. Letdown system radiation monitor alarm and Reactor Coolant Analysis indicates >1 uCi/ml dose equivalent Iodine 131. ECHO	Severe loss of fuel cladding greater than 1% fuel failure 1. Chemistry Dept. sampling indicates dose equivalent Iodine - 131 greater than 300 uCi/ml in primary coolant. CHARLIE-ONE	Degraded core with possible loss of coolable geometry 1. Subcooling monitor less than or equal to zero and 2. Incore thermo-couple greater than 700 F. CHARLIE-TWO	Any potential core melt situation 1.a. LOCA and b. Partial failure of ECCS or failure to shutdown or 2.a. Total loss of feedwater and b. Failure of auxiliary feedwater and c. Failure of ECCS BRAVO
	Abnormal coolant temperature and/or pressure 1. Tc greater than 549° alarm or (cont.)	NA	NA	NA

NRC CLASS	UNUSUAL EVENT	ALERT	SITE AREA EMERGENCY	GENERAL EMERGENCY
INCIDENT DESCRIPTION	EMERGENCY ACTION LEVEL			
VIII. Primary system/Loss of Fission Product Boundary (cont'd)	2. Pressurizer pressure greater than 2350 psia for greater than 2 hours. OR 3. Pressurizer pressure greater than 2400 psia. OR 4. Pressurizer pressure less than 2255 psia for greater than 2 hrs.	NA	NA	NA
	Significant loss of containment integrity requiring shutdown by technical specification 1. Equipment failure resulting in inability to isolate containment penetrations OR 2. Loss of containment integrity as determined by technical specification LCO's.	NA	NA	NA