REVISED 9-29-83

EMERGENCY PLAN IMPLEMENTING PROCEDURES

-Index-

Procedure #	TITLE	REVISION	DATE
EP-AD-1	Plant Emergency Organization	D	03-10-83
EP-AD-2	Emergency Class Determination	C	03-10-83
EP-AD-3	Unusual Event	C	09-29-83
EP-AD-4	Alert	C	09-29-83
EP-AD-5	Site Emergency	C	09-29-83
EP-AD-6	General Emergency	C	09-29-83
EP-AD-7	Notification of Unusual Event	G	8-16-83
EP-AD-8	Notification of Alert	G	8-16-83
EP-AD-9	Notification of Site Emergency	G	8-16-83
EP-AD-10	Notification of General Emergency	G	8-16-83
EP-AD-11	Emergency Radiation Controls	C	06-21-83
EP-AD-12	Personnel Assembly and Accountability	D	03-13-83
EP-AD-13	Personnel Evacuation		03-03-83
EP-AD-13A	Limited Area Evacuation	DELETED	03-1-83
EP-AD-13B	Emergency Assembly/Evacuation	DELETED	03-1-83
EP-AD-13C	Site Evacuation	DELETED	03-1-83
EP-AD-14	Search and Rescue	A	03-10-83
EP-AD-15	Recovery Planning	A	03-10-83
EP-AD-16	Occupational Injuries or Vehicle Accidents During Emergencies	A	03-10-83
EP-AD-17	Communications	E	8-16-83
EP-AD-18	Availability of Inorganic Iodine Salts for Iodine Saturation of the Human Thyroid Gland	A	03-10-83
EP-AD-19	Protective Action Guidelines		09-29-83
EP-ENV-1	Environmental Monitoring Team Organization	B	03-10-83
EP-ENV-2	Site Access Facility (SAF) Activation	B	03-10-83

REVISED 9-29-83

EMERGENCY PLAN IMPLEMENTING PROCEDURES
-Index-
(cont'd)

Procedure #	TITLE	REVISION	DATE
EP-ENV-3A	Environmental Protection Director Actions and Directives	H	06-21-83
EP-ENV-3B	EM Team Actions	E	06-21-83
EP-ENV-3C	Primary Dose Projection Calculation - IBM Personal Computer		06-21-83
EP-ENV-3D	Primary Determination of Meteorological Data		06-21-83
EP-ENV-3E	Manual Determination of X/Q (KNPP Meteorological Data)	E	06-21-83
EP-ENV-3F	Manual Determination of X/Q (Green Bay Meteorological Data)	D	06-21-83
EP-ENV-3G	Manual Dose Projection Calculation	D	06-21-83
EP-ENV-3H	Protective Action Recommendations	B	06-21-83
EP-ENV-4A	Sample Acquisition, Portable Instrument Use	C	03-10-83
EP-ENV-4B	Sample Acquisition, Air Monitoring Devices	B	05-21-82
EP-ENV-4C	Sample Acquisition, Environmental Sampling Techniques	B	05-21-82
EP-ENV-5A	LCS-1 Operation	B	4-21-83
EP-ENV-5B	MS-3 Operation	B	4-21-83
EP-ENV-5C	SAM II Operation	C	03-10-83
EP-ENV-5D	PAC-4G Operation	A	12-21-81
EP-ENV-5E	Reuter-Stokes Operation	A	03-10-83
EP-ENV-6	Data Analysis, Dose Projections and Protective Action Recommendations		DELETED
EP-ENV-6A	Relocation of Site Access Facility (Habitability)	A	03-10-83
EP-ENV-6B	SAF Environmental Sample Analysis Relocation	A	11-24-82
EP-ENV-7	Site Access Facility Communications	B	03-10-83
EP-ENV-8	Total Population Dose Estimate Calculations	A	7-26-83

REVISED 9-29-83

EMERGENCY PLAN IMPLEMENTING PROCEDURES
-Index-
(cont'd)

Procedure #	TITLE	REVISION	DATE
EP-EOF-1	Corporate Staff Emergency Response Organization	H	8-16-83
EP-EOF-2	Emergency Operations Facility (EOF) Activation	E	8-16-83
EP-EOF-3	Corporate Response to an Unusual Event	F	03-10-83
EP-EOF-4	Corporate Response to an Alert	H	8-16-83
EP-EOF-5	Corporate Response to a Site Emergency	H	8-16-83
EP-EOF-6	Corporate Response to a General Emergency	H	8-16-83
EP-EOF-7	Communications Documentation	E	03-10-83
EP-EOF-8	Relocation of EOF	DELETED	03-01-83
EP-EOF-9	Interface with Support Organizations	F	8-16-83

EP-OP-1	Control Room Emergency Organization	A	1-03-83
EP-OP-2	Emergency Control Room Activation for Emergency Response	B	1-03-83
EP-OP-3	Control Room Communications	A	1 03-83

EP-OSF-1	Operational Support Facility (OSF) Organization	A	1-15-82
EP-OSF-2	OSF Activation	A	05-21-82
EP-OSF-3	Work Requests During an Emergency	A	1-15-82
EP-OSF-4	OSF Communications	B	03-10-83

EP-RET-1	Radiation Emergency Team (RET) Organization	C	03-10-83
EP-RET-2	Inplant RET	D	09-29-83

EMERGENCY PLAN IMPLEMENTING PROCEDURES
-Index-
(cont'd)

Procedure #	TITLE	REVISION	DATE
EP-RET-2A	RPO/RAF Activation	C	03-10-83
EP-RET-2B	Gaseous Effluent Sample and Analysis	C	03-01-83
EP-RET-2C	Containment Air Sampling and Analysis	DELETED	03-01-83
EP-RET-2D	Emergency Radiation Entry, Controls and Implementation	B	03-10-83
EP-RET-2E	Handling of Injured Personnel	A	03-10-83
EP-RET-2F	Personnel Decontamination	B	03-10-83
EP-RET-3	Emergency Chemistry Team	C	03-10-83
EP-RET-3A	Liquid Effluent Release Paths	A	12-21-81
EP-RET-3B	Post-Accident Reactor Coolant Alternate Sampling Procedure	B	03-10-83
EP-RET-3C	Post Accident Operation of the High Radiation Sample Room	A	07-26-83
EP-RET-3D	Containment Air Sampling Analysis Using CASP	A	06-21-83
EP-RET-3E	Post Accident Operation of High Rad Sample Room inline Multiported Count Cave		07-26-83
EP-RET-4	Site RET	C	03-10-83
EP-RET-4B	Radiological Controls at Site Access Facility (SAF)	A	03-10-83
EP-RET-4C	Site Radiological Monitoring	A	03-10-83
EP-RET-5	Plume Projections	B	7-26-83
EP-RET-5A	Plume Projections (Backup Method)	B	9-20-83
EP-RET-6	Dose Projection	B	7-26-83
EP-RET-7	RAF/RPO Communications	A	03-10-83
EP-RET-8	Contamination Control at the Two Rivers Community Hospital	A	03-10-83

EMERGENCY PLAN IMPLEMENTING PROCEDURES
-Index-
(cont'd)

Procedure #	TITLE	REVISION	DATE
EP-SEC-1	Security Organization	A	03-10-83
EP-SEC-2	Security Force Response to Emergencies	C	03-01-83
EP-SEC-2(a)	Manual Activation of Emergency Sirens	DELETED	1-29-82
EP-SEC-3	Personnel Accountability (Initial and Maintaining)	D	03-10-83
EP-SEC-4	Dosimetry Issue at SAF	A	03-10-83

EP-TSC-1	Technical Support Center (TSC) Organization		12-21-81
EP-TSC-2	TSC Activation	C	03-10-83
EP-TSC-3	Plant Status Procedure	B	03-10-83
EP-TSC-4	Emergency Design Change, Major Equipment Repair		12-21-81
EP-TSC-5	TSC Communications	A	03-10-83
EP-TSC-6	Assessment of Reactor Core Damage	A	03-10-83

WISCONSIN PUBLIC SERVICE CORPORATION Kewaunee Nuclear Power Plant EMERGENCY PLAN IMPLEMENTING PROCEDURE	NO. EP-AD-3 REV. C TITLE Unusual Event DATE SEP 29 1983 PAGE 1 OF 6
REVIEWED BY [signature]	APPROVED BY [signature]

1.0 APPLICABILITY

Upon declaration of an Unusual Event, the Emergency Director (ED) is responsible for implementation of this procedure.

2.0 PRECAUTIONS

2.1 The Shift Supervisor is the initial Emergency Director in all situations. Any transfer of this responsibility should be documented in the Shift Supervisor's Log and communicated to all on-site directors.

2.2 The following responsibilities of the Emergency Director may not be delegated:

2.2.1 Determination of Emergency Classification

2.2.2 Recommendations of Protective Actions to offsite authorities.

NOTE: This step becomes the responsibility of the Emergency Response Manager (ERM) after EOF activation.

2.2.3 Authorization of emergency exposures in excess of 10 CFR Part 20 limits.

2.3 As more information becomes available, initial protective action recommendations should be adjusted in accordance with dose projections, time available to evacuate, estimated evacuation times, and meteorological conditions.

2.4 If notified by pager, Emergency Response Organization directors should confirm contact by telephoning the plant at

3.0 REFERENCES

3.1 ACD 14.2 Fire Emergency

3.2 Emergency Plan Implementing Procedures

4.0 INSTRUCTIONS

NOTE: Sections 4.1 is not required following an emergency class de-escalation.

4.1 Emergency Director (Immediate Actions of Shift Supervisor)

4.1.1 Contact the Shift Technical Adviser and request that he report to the Control Room immediately.

4.1.2 IF FIRE EMERGENCY, actions required by ACD 14.2 should be implemented.

4.1.3 Determine IF PERSONNEL ASSEMBLY IS REQUIRED. For personnel assembly, direct a member of the operating crew to make the following announcement over the plant Gai-tronics.

"Attention all personnel. We are experiencing an Unusual Event. All personnel report to their emergency assembly areas."

NOTE: Also announce the location of any hazards (fire, abnormally high radiation area) so they can be avoided during personnel assembly.

Repeat the announcement and sound the plant emergency alarm.

4.14 Protective actions for the general public should not be required for an Unusual Event.

4.1.5 Direct a Communicator (or if one is not available, the Shift Technical Advisor)to perform the required notifications per EP-AD-7; Notification of Unusual Event.

4.1.6 Direct the Security Director or his alternate to implement EP-SEC-2, Security Force Response to Emergencies, for an Unusual Event.

4.1.7 Continue to make assessments of plant conditions and perform the required actions of the Emergency Director (Section 4.2 of this Procedure) unless relieved by the contacted Emergency Director.

4.2 Emergency Director (ED)

4.2.1 If offsite, contact the Shift Supervisor, evaluate the event, and determine the need to report to the site. Inform Shift Supervisor of your decision and maintain awareness of plant conditions.

4.2.2 If onsite or after arriving onsite, report to the Control Room and relieve the Shift Supervisor of Emergency Director responsibilities. Notify any onsite directors of this responsibility transfer.

4.2.3 Verify that steps 4.1.1 through 4.1.6 of this procedure have been performed.

4.2.4 Review the actions taken for the protection of plant personnel:

a. EP-AD-11, Emergency Radiation Controls
b. EP-AD-12, Personnel Assembly and Accountability
c. EP-AD-13, Personnel Evacuation (Areas greater than 100 mR/hr)
d. EP-AD-14, Search and Rescue
e. EP-AD-16, Personnel Injury or Vehicle Accidents

4.2.5 Determine if additional staff augmentation or emergency facility activation is desired.

4.2.6 Review the emergency class determination (EP-AD-2), make any needed change, and implement the corresponding procedure. For an emergency class escalation, verify that required notifications are made.

4.2.7 Inform the Emergency Response Manager of plant conditions; provide updates as necessary.

4.2.8 Review stack monitors for effluent releases (offsite dose consequences) and, if necessary, obtain an offsite dose assessment evaluation from RPD.

4.2.9 Ensure that off-site authorities are provided with protective action recommendations (EP-AD-19) and status updates as needed.

NOTE: Protective actions for the general public should not be required for an Unusual Event.

4.2.10 Close out the Unusual Event when the plant has been restored to a stable condition. Verify that required notifications are made and implement EP-AD-15, Recovery Planning, if needed.

NOTE: A written summary to offsite authorities is required within 24 hours.

4.3 Shift Technical Adviser

4.3.1 Report to the Control Room to be briefed on plant conditions.

4.3.2 Continue to monitor plant conditions and provide any assistance needed by the Shift Supervisor.

4.4 Communicator

4.4.1 When directed by the Shift Supervisor perform the required notifications per EP-AD-7, Notification of Unusual Event.

4.4.2 Assume responsibility for additional information contacts until relief is available.

4.5 Event Operations Director

4.5.1 If offsite, maintain awareness of plant conditions and report to the site at the request of the Emergency Director.

4.5.2 If onsite or after arrival onsite, report to the Control Room and assume the responsibilities of Event Operations Director.

4.5.3 Review equipment status and instrument indications to make an assessment of overall plant status.

4.5.4 Review corrective actions taken and make any additional recommendations to Shift Supervisor as necessary.

4.5.5 If personnel assembly has occurred, establish Control Room Personnel accountability per EP-AD-12.

4.5.6 Check communication links with TSC and OSF if activated.

4.5.7 Have additional operations support personnel contacted as needed and request that they report to the site.

4.5.8 Continue to keep Emergency Director informed of any changes in plant status and any planned evolutions.

4.6 Radiological Protection Director

4.6.1 If offsite, maintain awareness of plant conditions and report to the site at the request of the Emergency Director.

4.6.2 If onsite or after arrival onsite, report to the Radiation Protection Office (RPO) and assume the responsibilities of Radiological Protection Director. If RPO is inaccessible, report to Radiological Analysis Facility (RAF).

4.6.3 Contact the Shift Supervisor for area and process radiation monitor readings and meteorological information if needed.

4.6.4 If personnel assembly has occurred, establish personnel accountability in RPO or RAF as appropriate, per EP-AD-12. Provide assistance in search and rescue operations as needed.

4.6.5 Ensure that the requirements of EP-AD-11, Emergency Radiation Controls, are being implemented.

4.6.6 Have Radiation Emergency Team members contacted to augment the onshift personnel as needed. Establish Radiation Emergency Team Organization per EP-RET-1.

4.6.7 Implement In-Plant RET and Emergency Chemistry Team procedures as dictated by the emergency event.

4.6.8 Perform dose projections per EP-RET-5 and EP-RET-6, if a release has occurred or is in progress.

4.6.9 Provide continuing protective action evaluations to Emergency Director.

4.7 Technical Support Center Director

4.7.1 If offsite, maintain awareness of plant conditions and report to the site at the request of the Emergency Director.

4.7.2 If onsite or after arrival onsite, report to the Technical Support Center (TSC) and assume the responsiblities of TSC Director.

4.7.3 Contact the Event Operations Director for information on plant status.

4.7.4 If personnel assembly has occurred, establish personnel accountability per EP-AD-12.

4.7.5 Prepare to establish TSC organization per EP-TSC-1.

4.7.6 Prepare to activate Technical Support Center per EP-TSC-2.

4.8 Support Activities Director

4.8.1 If offsite, maintain awareness of plant conditions and report to the site at the request of the Emergency Director.

4.8.2 If onsite or after arrival onsite, report to the Operational Support Facility (OSF) and assume the responsiblities of Support Activites Director.

4.8.3 Contact the Emrgency Director for information on plant status and immediate actions.

4.8.4 If personnel assembly has occurred, establish personnel accountability per EP-AD-12. Provide assistance in search and rescue operations as needed.

4.8.5 Prepare to establish OSF Organization per EP-OSF-1.

4.8.6 Prepare to activate Operational Support Facility per EP-OSF-2.

4.9 Security Director

4.9.1 If offsite, maintain awareness of plant conditions and report to the site at the request of the Emergency Director.

4.9.2 If onsite or after arrival onsite, verify that EP-SEC-2, Security Force Response to Emergencies, is being implemented for an Unusual Event.

4.9.3 Contact additional Security Force personnel to augment the onshift personnel as needed.

4.10 Plant Personnel

4.10.1 If on-site, all personnel shall assemble at the Emergency Assembly Areas (Table AD-12.1) or emergency duty locations after Gai-tronics announcement and sounding of the plant emergency alarm.

4.10.2 After notification, off-site emergency response personnel should report to their emergency duty location. All personnel entries to the site should be via the Site Access Facility, if it is activated.

4.11 Final Conditions (One of the following)

4.11.1 The Unusual Event has been escalated to:

a. An Alert and EP-AD-4, Alert, is being implemented.

b. A Site Emergency and EP-AD-5, Site Emergency, is being implemented.

c. A General Emergency and EP-AD-6, General Emergency, is being implemented.

4.11.2 The Unusual Event has been closed out with no recovery operations needed and offsite agencies have been informed per EP-AD-7.

4.11.3 The Unusual Event has been closed out, EP-AD-15, Recovery Planning, is being implemented, and offsite support agencies have been informed per EP-AD-7.

WISCONSIN PUBLIC SERVICE CORPORATION Kewaunee Nuclear Power Plant EMERGENCY PLAN IMPLEMENTING PROCEDURE	NO. EP-AD-4 REV. C TITLE: Alert DATE: SEP 29 1983 PAGE 1 of 7
REVIEWED BY W. L. Marchi R. C. Lee	APPROVED BY [signature]

1.0 APPLICABILITY

Upon declaration of an Alert, the Emergency Director (ED) is responsible for implementation of this procedure.

2.0 PRECAUTIONS

2.1 The Shift Supervisor is the initial Emergency Director in all situations. Any transfer of this responsibility should be documented in the Shift Supervisor's Log and communicated to all onsite directors.

2.2 The following responsibilities of the Emergency Director may not be delegated:

2.2.1 Determination of Emergency Classification

2.2.2 Recommendations of Protective Actions to offsite authorities.

NOTE: This step becomes the responsibility of the Emergency Response Manager after EOF activation.

2.2.3 Authorization of emergency exposures in excess of 10 CFR Part 20 limits.

2.3 As more information becomes available, initial protective action recommendations should be adjusted in accordance with dose projections, time available to evacuate, estimated evacuation times, and meteorological conditions.

2.4 If notified by pager, Emergency Response Organization directors should confirm contact by telephoning the plant at

2.5 Only the following personnel may authorize support personnel without Kewaunee I.D. cards access to the site during an Alert:

Shift Supervisor	Support Activities Director (SAD)
Emergency Director (ED)	Security Director
Event Operations Director (EOD)	Emergency Response Manager (ERM)
Radiological Protection Director (RPD)	Environmental Protection Director (EPD)
Technical Support Center Director (TSCD)	Administrative/Logistics Director (ALD)

3.0 REFERENCES

3.1 ACD 14.2 Fire Emergency

3.2 Emergency Plan Implementing Procedures

4.0 INSTRUCTIONS

NOTE: Section 4.1 is not required following an emergency class de-escalation.

4.1 Emergency Director (Immediate Actions of Shift Supervisor)

4.1.1 Contact the Shift Technical Adviser and request that he report to the Control Room immediately.

4.1.2 IF FIRE EMERGENCY, actions required by ACD 14.2 should be implemented.

4.1.3 PERSONNEL ASSEMBLY IS REQUIRED. Direct a member of the operating crew to make the following announcement over the Gai-tronics

"Attention all personnel. We are experiencing an Alert. All personnel report to their emergency assembly areas."

NOTE: Also announce the location of any hazards (fire, abnormally high radiation area) so they can be avoided during personnel assembly.

Repeat the announcement and sound the plant emergency alarm

4.1.4 Protective actions for the general public should not be required for an Alert.

NOTE: As a precautionary measure onsite members of the general public (fishermen, tourists, farmers, etc.) will be directed to leave the site.

4.1.5 Direct a Communicator (or if one is not available, the Shift Technical Advisor) to perform the required notifications per EP-AD-8, Notification of Alert.

4.1.6 Implement EP-OP-2, Emergency Activation of Control Room.

4.1.7 Direct the Security Director or his alternate to implement EP-SEC-2, Security Force Response to Emergencies, for an Alert.

4.1.8 Continue to make assessments of plant conditions and perform the required actions of the Emergency Director (Section 4.2 of this procedure) until relieved by the contacted Emergency Director.

4.2 Emergency Director

4.2.1 If offsite, contact the Shift Supervisor, evaluate the event and report to the site, via the Site Access Facility (SAF).

4.2.2 If onsite or after arriving onsite, report to the Control Room and relieve the Shift Supervisor of Emergency Director responsibilities. Notify any onsite directors of this responsibility transfer.

4.2.3 Verify that steps 4.1.1 through 4.1.7 of this procedure have been performed.

4.2.4 Review the actions taken for the protection of plant personnel, including:

a) Verify that a personnel accountability check has been initiated. If needed, have search and rescue teams dispatched per EP-AD-14. Consider evacuation of non-essential personnel.

b) Ensure that emergency radiation controls are being followed per EP-AD-11.

c) Initiate a plant or site evacuation if required per EP-AD-13, Personnel Evacuation. (Areas greater than 100 mR/hr.)

4.2.5 Initiate additional staff augmentation or emergency facility activation as necessary.

4.2.6 Review the emergency class determination (EP-AD-2), make any needed change, and implement the corresponding procedure. For an emergency class escalation or de-escalation, verify that required notifications are made.

4.2.7 Inform the Emergency Response Manager of plant conditions; provide updates as necessary.

4.2.8 Review stack monitors for any effluent releases (potential offsite dose consequences) and, if necessary, obtain an offsite dose assessment evaluation from RPD.

4.2.9 Ensure that onsite members of the general public (fishermen, tourists, farmers, etc.) have been directed to leave the site.

4.2.10 Ensure that offsite authorities are provided with protective action recommendations (EP-AD-19) and status updates as needed.

NOTE: Protective actions for the general public should not be required for an Alert.

4.2.11 Close out the Alert when the plant has been restored to a stable condition. Verify that required notifications are made and implement EP-AD-15, Recovery Planning, if needed.

NOTE: A written summary to offsite authorities is required within 8 hours.

4.3 Shift Technical Adviser

4.3.1 Report to the Control Room to be briefed on plant conditions.

4.3.2 Continue to monitor plant conditions and provide any assistance needed by the Shift Supervisor.

4.4 Communicator

4.4.1 When directed by the Shift Supervisor perform the required notifications per EP-AD-8, Notification of Alert.

4.4.2 Assume responsibility for additional information contacts until relief is available or the TSC is activated.

4.5 Event Operations Director

4.5.1 If offsite, report to the site via the Site Acess Facility (SAF).

4.5.2 If onsite or after arrival onsite, report to the Control Room and assume the responsibilities of Event Operations Director.

4.5.3 Review equipment status and instrument indications to make an assessment of overall plant status.

4.5.4 Review corrective actions taken and make any additional recommendations to Shift Supervisor as necessary.

4.5.5 Establish control room personnel accountability per EP-AD-12.

4.5.6 Check communication links with TSC and OSF when activated.

4.5.7 Have additional operations support personnel contacted as needed and request that they report to the site via the Site Access Facility (SAF).

4.5.8 Continue to keep TSC Staff informed of any changes in plant status and any planned evolutions.

4.6 Radiological Protection Director

4.6.1 If offsite, report to the site via the Site Access Facility (SAF).

4.6.2 If onsite or after arrival onsite, report to the Radiation Protection Office and assume the responsibilities of Radiological Protection Director. If RPO is inaccessible, report to Radiological Analysis Facility (RAF).

4.6.3 Implement EP-RET-2A, RPO/RAF Activation.

4.6.4 Contact the Shift Supervisor for area and process radiation monitor readings and meteorological information if needed.

4.6.5 Establish personnel accountability in RPO or RAF as appropriate per EP-AD-12. Provide assistance in search and rescue as needed.

4.6.6 Ensure that the requirements of EP-AD-11, Emergency Radiation Controls, are being implemented.

4.6.7 Have Radiation Emergency Team (RET) members contacted to augment the onshift personnel as needed. Establish Radiation Emergency Team organization per EP-RET-1.

4.6.8 Ensure controlled area access control by implementing EP-RET-2D, Emergency Radiation Entry, Controls and Implementation.

4.6.9 Dispatch Site RET to ensure SAF and EOF habitability per EP-RET-4A and EP-RET-4B.

4.6.10 Implement additional in-Plant RET, and Emergency Chemistry Team and Site RET procedures as dictated by the emergency event.

4.6.11 Perform dose projections per EP-RET-5 and EP-RET-6, if a release has occurred or is in progress.

4.6.12 Provide continuing protective action evaluations to Emergency Director.

4.7 Technical Support Center Director

4.7.1 If offsite, report to the site via the Site Access Facility (SAF).

4.7.2 If onsite or after arrival onsite, report to the Technical Support Center and assume the responsiblities of TSC Director.

4.7.3 Establish personnel accountability at TSC per EP-AD-12.

4.7.4 Activate Technical Support Center per EP-TSC-2.

4.7.5 Establish TSC organization per EP-TSC-1.

4.7.6 Contact the Event Operations Director for information on plant status.

4.7.7 Implement EP-TSC-3, Plant Status Procedure, to provide Emergency Director and off-site authorities with status updates.

4.7.8 Continue to direct TSC activities in support of plant operations.

4.8 Support Activities Director

4.8.1 If offsite, report to the site via the Site Access Facility (SAF).

4.8.2 If onsite or after arrival onsite, report to the Operational Support Facility and assume the responsiblities of Support Activites Director.

4.8.3 Establish personnel accountability at OSF per EP-AD-12. Provide assistance in search and rescue operations as needed.

4.8.4 Contact the Emergency Director for information on plant status and immediate actions.

4.8.5 Activate Operational Support Facility per EP-OSF-2.

4.8.6 Establish OSF organization per EP-OSF-1.

4.8.7 Continue to direct emergency maintenance activities.

4.9 Security Director

4.9.1 If offsite, report to the site via the Site Access Facility (SAF).

4.9.2 If onsite or after arrival onsite verify that EP-SEC-2, Security Force Response to Emergencies is being implemented for an ALERT.

4.9.3 Contact additional Security Force personnel to augment the on-shift personnel as needed.

4.10 Plant Personnel

4.10.1 If onsite, all personnel shall assemble at the Emergency Assembly Areas (Table AD-12.1) or emergency duty locatons after Gai-tronics announcement and sounding of the plant emergency alarm.

4.10.2 After notification, offsite emergency response perrsonnel should report to their emergency duty location. All personnel entries to the site should be via the Site Access Facility.

4.11 Final Conditions (One of the following)

4.11.1 The Alert Event has been escalated to:

a. A Site Emergency and EP-AD-5, Site Emergency is being implemented.

b. A General Emergency and EP-AD-6, General Emergency, is being implemented.

4.11.2 The Alert has been de-escalated to and Unusual Event, and EP-AD-3, Unusual Event, is being implemented.

4.11.3 The Alert has been closed out with no recovery operations needed and offsite agencies have been informed per EP-AD-8.

4.11.4 The Alert has been closed out, EP-AD-15, Recovery Planning, is being implemented, and offsite support agencies have been informed per EP-AD-8.

WISCONSIN PUBLIC SERVICE CORPORATION Kewaunee Nuclear Power Plant EMERGENCY PLAN IMPLEMENTING PROCEDURE	NO. EP-AD-5 REV. C TITLE: Site Emergency DATE: SEP 29 1983 PAGE 1 of 7
REVIEWED BY M L Marchi R R Grace	APPROVED BY [signature]

1.0 APPLICABILITY

Upon declaration of a Site Emergency, the Emergency Director (ED) is responsible for implementation of this procedure.

2.0 PRECAUTIONS

2.1 The Shift Supervisor is the initial Emergency Director in all situations. Any transfer of this responsibility should be documented in the Shift Supervisor's Log and communicated to all onsite directors.

2.2 The following responsibilities of the Emergency Director may not be delegated:

2.2.1 Determination of Emergency Classification

2.2.2 Recommendations of Protective Actions to offsite authorities.

NOTE: This step becomes the responsibility of the Emergency Response Manager after EOF activation.

2.2.3 Review and approval of emergency exposures in excess of 10 CFR Part 20 limits.

2.3 As more information becomes available, initial protective action recommendations should be adjusted in accordance with dose projections, time available to evacuate, estimated evacuation times, and meteorological conditions.

2.4 If notified by pager, Emergency Response Organization directors should confirm contact by telephoning the plant at

2.5 Only the following personnel may authorize support personnel without Kewaunee I.D. cards access to the site during a Site Emergency.

Shift Supervisor	Support Activities Director (SAD)
Emergency Director (ED)	Security Director
Event Operations Director (EOD)	Emergency Response Manager (ERM)
Radiological Protection Director (RPD)	Environmental Protection Director (EPD)
Technical Support Center Director (TSCD)	Administrative/Logistics Director (ALD)

3.0 REFERENCES

3.1 ACD 14.2 Fire Emergency

3.2 Emergency Plan Implementing Procedures

4.0 INSTRUCTIONS

NOTE: Sections 4.1 is not required following an emergency class de-escalation.

4.1 Emergency Director (Immediate Actions of Shift Supervisor)

4.1.1 Contact the Shift Technical Adviser and request that he report to the Control Room immediately.

4.1.2 IF FIRE EMERGENCY, actions required by ACD 14.2 should be implemented.

4.1.3 PERSONNEL ASSEMBLY IS REQUIRED. Direct a member of the operating crew to make the following announcement over the plant Gai-tronics.

"Attention all personnel. We are experiencing a Site Emergency. All personnel report to their emergency assembly areas."

NOTE: Also announce the location of any hazards (fire, abnormally high radiation area) so they can be avoided during personnel assembly.

Repeat the announcement and sound the plant emergency alarm.

4.1.4 Direct a Communicator (or if one is not available, the Shift Technical Advisor) to perform the required notifications per EP-AD-9; Notification of Site Emergency.

4.1.5 Protective Actions

a. If projected doses or field sample analyses are available, recommend protective actions to offsite authorities using EP-AD-19

OR

b. If this information is not available and the Site Emergency is the result of a radioactive release or a significant release is imminent, recommend to offsite authorities that personnel within a two mile radius of the plant take shelter. If not, protective actions for the general public should not be required.

4.1.6 Implement EP-OP-2, Emergency Activation of Control Room.

4.1.7 Direct the Security Director or his alternate to implement EP-SEC-2, Security Force Response to Emergencies, for a Site Emergency.

4.1.8 Ensure onsite members of the general public (fishermen, tourists, farmers, etc.) have been directed to leave the site.

4.1.9 Continue to make assessments of plant conditions and perform the required actions of the Emergency Director (Section 4.2 of this procedure) until relieved by the contacted Emergency Director.

4.2 Emergency Director

4.2.1 If offsite, contact the Shift Supervisor, evaluate the event, and report to the site, via the Site Access Facility (SAF).

4.2.2 If onsite or after arriving onsite, report to the Control Room and relieve the Shift Supervisor of Emergency Director responsibilities. Notify any onsite directors of this responsibility transfer.

4.2.3 Verify that steps 4.1.1 through 4.1.8 of this procedure have been performed.

4.2.4 Review the actions taken for the protection of plant personnel, including:

a) After personnel assembly has occurred, verify that a personnel accountability check has been initiated. If needed, have search and rescue teams dispatched per EP-AD-14.

b) Initiate a plant or site evacuation if required per EP-AD-13, Personnel Evacuation. All non-essential personnel should be evacuated from the site.

c) Ensure that emergency radiation controls are being followed per EP-AD-11.

4.2.5 Verify that staff augmentation and emergency facility activation are under way.

4.2.6 Review the emergency class determination (EP-AD-2), make any needed change, and implement the corresponding procedure. For an emergency class escalation or de-escalation, verify that required notifications are made.

4.2.7 Inform the Emergency Response Manager of plant conditions; verify that updates are provided periodically.

4.2.8 Review stack monitors for effluent releases (potential offsite dose consequences) and, if necessary, obtain an offsite dose assessment evaluation from RPD.

4 2.9 Ensure that offsite authorities are provided with protective action recommendations (EP-AD-19) and status updates.

4.2.10 Close out the Site Emergency when the plant has been restored to a stable condition. Verify that required notifications are made and implement EP-AD-15, Recovery Planning, if needed.

NOTE: A written summary to offsite authorities is required within 8 hours.

4.3 Shift Technical Adviser

4.3.1 Report to the Control Room to be briefed on plant conditions.

4.2.3 Continue to monitor plant conditions and provide any assistance needed by the Shift Supervisor.

4.4 Communicator

4.4.1 If not assumed by the TSC and EOF staffs, perform the required notifications per EP-AD-9, Notification of Site Emergency.

4.4.2 Assume responsibility for additional information contacts until a Communicator is available or the TSC is activated.

4.5 Event Operations Director

4.5.1 If offsite, report to the site via the Site Acess Facility (SAF).

4.5.2 If onsite or after arrival onsite, report to the Control Room and assume the responsibilities of Event Operations Director.

4.5.3 Review equipment status and instrument indications to make an assessment of overall plant status.

4.5.4 Review corrective actions taken and make any additional recommendation to Shift Supervisor as necessary.

4.5.5 Establish Control Room Personnel accountability per EP-AD-12.

4.5.6 Check communication links with TSC and OSF when activated.

4.5.7 Have additional operations support personnel contacted as needed and request that they report to the site via the Site Access Facility (SAF).

4.5.8 Continue to keep TSC Staff informed of any changes in plant status and any planned evolutions.

4.6 Radiological Protection Director

4.6.1 If offsite, report to the site via the Site Access Facility (SAF).

4.6.2 If onsite or after arrival onsite, report to the Radiation Protection Office (RPO) and assume the responsibilities of Radiological Protection Director. If the RPO is inaccessible, report to the Radiological Analysis Facility (RAF).

4.6.3 Establish personnel accountability in RPO or RAF as appropriate per EP-AD-12. Provide assistance in search and rescue operations as needed.

4.6.4 Implement EP-RET-2A, RPO/RAF Activation.

4.6.5 Contact the Shift Supervisor for area and process radiation monitor readings and meteorological information.

4.6.6 Ensure that the requirements of EP-AD-11, Emergency Radiation Controls, are being implemented.

4.6.7 Have Radiation Emergency Team (RET) members contacted to augment the onshift personnel as needed. Establish Radiation Emergency Team organization per EP-RET-1.

4.6.8 Ensure controlled area access control by implementing EP-RET-2D, Emergency Radiation Entry, Controls and Implementation.

4.6.9 Dispatch Site RET to ensure SAF and EOF habitability per EP-RET-4A and EP-RET-4B.

4.6.10 Implement additional in-plant RET, and Emergency Chemistry Team, and Site RET procedures as dictated by the emergency event.

4.6.11 Perform initial dose projections per EP-RET-5 and EP-RET-6, if a release has occurred or is in progress. Inform Environmental Protection Director of release data and projections after his arrival at the EOF.

4.6.12 Provide continuing protective action evaluations to Emergency Director and Emergency Response Manager.

4.7 Technical Support Center Director

4.7.1 If offsite, report to the site via the Site Access Facility (SAF).

4.7.2 If onsite or after arrival onsite, report to the Technical Support Center and assume the responsiblities of TSC Director.

4.7.3 Establish personnel accountability at TSC per EP-AD-12.

4.7.4 Activate Technical Support Center per EP-TSC-2.

4.7.5 Establish TSC organization per EP-TSC-1.

4.7.6 Contact the Event Operations Director for information on plant status.

4.7.7 Implement EP-TSC-3, Plant Status Procedure, to provide Emergency Director and off-site authorities with status updates.

4.7.8 Continue to direct TSC activities in support of plant operations.

4.8 Support Activities Director

4.8.1 If offsite, report to the site via the Site Access Facility (SAF).

4.8.2 If onsite or after arrival onsite, report to the Operational Support Facility and assume the responsiblities of Support Activites Director.

4.8.3 Establish personnel accountability at OSF per EP-AD-12. Provide assistance in search and rescue operations as needed.

4.8.4 Activate Operational Support Facility per EP-OSF-2.

4.8.5 Establish OSF organization per EP-OSF-1.

4.8.6 Contact the Emergency Director for information on plant status and immediate actions.

4.8.7 Continue to direct emergency maintenance activities.

4.9 Security Director

4.9.1 If offsite, report to the site via the Site Access Facility (SAF).

4.9.2 If onsite or after arrival onsite verify that EP-SEC-2, Security Force Response to Emergencies is being implemented for a Site Emergency.

4.9.3 Contact additional Security Force personnel to augment the onshift personnel as needed.

4.10 Plant Personnel

4.10.1 If on site, all personnel shall assemble at the Emergency Assembly Areas (Table AD-12.1) or emergency duty locations after Gai-tronics announcement and sounding of the plant emergency alarm.

4.10.2 After notification, offsite emergency response personnel should report to their emergency duty location. All personnel entries to the site should be via the Site Access Facility.

4.11 Final Conditions (One of the following)

4.11.1 The Site Emergency has been escalated to a General Emergency and EP-AD-6, General Emergency, is being implemented.

4.11.2 The Site Emergency has been de-escalated to:

a. an Unusual Event and EP-AD-3, Unusual Event, is being implemented.

b. an Alert and EP-AD-4, Alert, is being implemented.

4.11.3 The Site Emergency has been closed out with no recovery operations needed and offsite agencies have been informed per EP-AD-9.

4.11.4 The Site Emergency has been closed out, EP-AD-15 Recovery Planning, is being implemented, and offsite support agencies have been informed per EP-AD-9.

WISCONSIN PUBLIC SERVICE CORPORATION Kewaunee Nuclear Power Plant EMERGENCY PLAN IMPLEMENTING PROCEDURE	NO. EP-AD-6 REV. C TITLE: General Emergency DATE: SEP 29 1983 PAGE 1 of 7
REVIEWED BY M. L. Marchi R. Rulec	APPROVED BY Sitt

1.0 APPLICABILITY

Upon declaration of a General Emergency, the Emergency Director (ED) is responsible for implementation of this procedure.

2.0 PRECAUTIONS

2.1 The Shift Supervisor is the initial Emergency Director in all situations. Any transfer of this responsibility should be documented in the Shift Supervisor's Log and communicated to all onsite directors.

2.2 The following responsibilities of the Emergency Director may not be delegated:

2.2.1 Determination of Emergency Classification

2.2.2 Recommendations of Protective Actions to offsite authorities.

NOTE: This step becomes the responsibility of the Emergency Response Manager after EOF activation.

2.2.3 Authorization of emergency exposures in excess of 10 CFR Part 20 limits.

2.3 As more information becomes available, initial protective action recommendations should be adjusted in accordance with those projections, time available to evacuate, estimated evacuation times, and meteorological conditions.

2.4 If notified by pager, Emergency Response Organization directors should confirm contact by tlephoning the plant at

2.5 Only the following personnel may authorize support personnel without Kewaunee I.D. cards access to the site during a General Emergency:

Shift Supervisor	Support Activities Director (SAD)
Emergency Director (ED)	Security Director
Event Operations Director (EOD)	Emergency Response Manager (ERM)
Radiological Protection Director (RPD)	Environmental Protection Director (EPD)
Technical Support Center Director (TSCD)	Administrative/Logistics Director (ALD)

3.0 REFERENCES

3.1 ACD 14.2 Fire Emergency

3.2 Emergency Plan Implementing Procedures

4.0 INSTRUCTIONS

4.1 Emergency Director (Immediate Actions of Shift Supervisor)

4.1.1 Contact the Shift Technical Adviser and request that he report to the Control Room immediately.

4.1.2 IF FIRE EMERGENCY, actions required by ACD 14.2 should be implemented.

4.1.3 PERSONNEL ASSEMBLY IS REQUIRED. Direct a member of the operating crew to make the following announcement over the plant Gai-tronics.

"Attention all personnel. We are experiencing a General Emergency. All personnel report to their emergency assembly areas.

NOTE: Also announce the location of any hazards (fire, abnormally high radiation area) so they can be avoided during personnel assembly.

Repeat the announcement and sound the plant emergency alarm.

4.1.4 Direct a Communicator (or a if one is not available, the Shift Technical Advisor) to perform the required notifications per EP-AD-10, Notification of General Emergency.

4.1.5 Protective Actions

a. If projected doses or field sample analyses are available, recommend protective actions to offsite authorities using EP-AD-19

OR

b. If this information is not available and minimal or no core damage exists, recommend to offsite authorities that personnel within a 2 mile radius and the three 5 mile downwind sectors of the plant take shelter.

OR

c. If this information is not available and substantial core damage is evident, recommend to offsite authorities that personnel within a 2 mile radius of the plant be evacuated and within the three 10 mile downwind sectors of the plant take shelter.

4.1.6 Implement EP-OP-2, Emergency Activation of Control Room.

4.1.7 Direct the Security Director or his alternate to implement EP-SEC-2, Security Force Response to Emergencies, for a General Emergency.

NOTE: Onsite members of the public (fishermen, tourists, farmers, etc.) will be directed to leave the site.

4.1.8 Continue to make assessments of plant conditions and perform the required actions of the Emergency Director (Section 4.2 of this procedure) until relieved by the contacted Emergency Director.

4.2 Emergency Director

4.2.1 If offsite, contact the Shift Supervisor, evaluate the event, and report to the site, via the Site Access Facility (SAF).

4.2.2 If onsite or after arriving onsite, report to the Control Room and relieve the Shift Supervisor of Emergency Director responsibilities. Notify any on-site directors of this responsibility transfer.

4.2.3 Verify that steps 4.1.1 through 4.1.7 of this procedure have been performed.

4.2.4 Review actions taken for the protection of plant personnel including:

a) After personnel assembly has occurred, verify that a personnel accountability check has been initiated. If needed, have search and rescue teams dispatched per EP-AD-14.

b) Initiate a plant or site evacuation if required per EP-AD-13, Personnel Evacuation. All non-essential personnel should be evacuated from the site.

c) Verify that emergency radiation controls are being followed per EP-AD-11.

4.2.5 Ensure that staff augmentation and emergency facility activation are under way.

4.2.6 Review the emergency class determination (EP-AD-2), make any needed change, and implement the corresponding procedure. For an emergency class de-escalation, verify that required notifications are made.

4.2.7 Inform the Emergency Response Manager of plant conditions; verify that updates are provided periodically.

4.2.8 Review stack monitors for effluent releases (offsite dose consequences) and, if necessary, obtain an offsite dose assessment evluation from RPD.

4.2.9 Ensure that off-site authorities are provided with protective action recommendations (EP-AD-19) and status updates.

4.2.10 Close out the General Emergency when the plant has been restored to a stable condition. Verify that required notifications are made and implement EP-AD-15, Recovery Planning, if needed.

NOTE: A written summary to offsite authorities within 8 hours.

4.3 Shift Technical Adviser

4.3.1 Report to the Control Room to be briefed on plant conditions.

4.3.2 Continue to monitor plant conditions and provide any assistance needed by the Shift Supervisor.

4.4 Communicator

4.4.1 If not assumed by the TSC and EOF staffs, perform the required notifications per EP-AD-9, Notification of General Emergency.

4.4.2 Assume responsibility for additional information contacts until a Communicator is available or the TSC is activated.

4.5 Event Operations Director

4.5.1 If offsite, report to the site via the Site Acess Facility (SAF).

4.5.2 If onsite or after arrival onsite, report to the Control Room and assume the responsibilities of Event Operations Director.

4.5.3 Establish Control Room Personnel accountability per EP-AD-12.

4.5.4 Review equipment status and instrument indications to make an assessment of overall plant status.

4.5.5 Review corrective actions taken and make any additional recommendation to Shift Supervisor as necessary.

4.5.6 Check communication links with TSC and OSF when activated.

4.5.7 Have additional operations support personnel contacted as needed and request that they report to the site via the Site Access Facility (SAF).

4.5.8 Continue to keep TSC Staff informed of any changes in plant status and any planned evolutions.

4.6 Radiological Protection Director

4.6.1 If offsite, report to the site via the Site Access Facility (SAF).

4.6.2 If onsite or after RPO arrival onsite, report to the Radiation Protection Office and assume the responsibilities of Radiological Protection Director. If the RPO is inaccessible, report to the Radiological Analysis Facility (RAF).

4.6.3 Establish personnel accountability in RPO or RAF as appropriate per EP-AD-12. Provide assistance in search and rescue operations as needed.

4.6.4 Implement EP-RET-2A, RPO/RAF Activation.

4.6.5 Contact the Shift Supervisor for radiation area and process monitors readings and meteorological information.

4.6.6 Ensure that the requirments of EP-AD-11, Emergency Radiation Controls are being implemented.

4.6.7 Have Radiation Emergency Team (RET) members contacted to augment the onshift personnel as needed. Establish Radiation Emergency Team organization per EP-RET-1.

4.6.8 Ensure controlled area access control by implementing EP-RET-2D, Emergency Radiation Entry, Controls and Implementation.

4.6.9 Dispatch Site Team to ensure SAF and EOF habitability per EP-RET-4A and EP-RET-4B.

4.6.10 Implement additional in-plant RET, Emergency Chemistry Team, and Site RET procedures as dictated by the emergency event.

4.6.11 Perform initial dose projections per EP-RET-5 and EP-RET-6, if a release has occurred or is in progress. Inform Environmental Protection Director of release data and projections after his arrival at the EOF.

4.6.12 Provide continuing protective action evaluations to the Emergency Director and the Emergency Response Manager.

4.7 Technical Support Center Director

4.7.1 If offsite, report to the site via the Site Access Facility (SAF).

4.7.2 If onsite or after arrival onsite, report to the Technical Support Center and assume the responsibilities of TSC Director.

4.7.3 Establish personnel accountability at TSC per EP-AD-12.

4.7.4 Activate Technical Support Center per EP-TSC-2.

4.7.5 Establish TSC organization per EP-TSC-1.

4.7.6 Contact the Event Operations Director for information on plant status.

4.7.7 Implement EP-TSC-3, Plant Status Procedure, to provide Emergency Director and off-site authorities with status updates.

4.7.8 Continue to direct TSC activities in support of plant operations.

4.8 Support Activities Director

4.8.1 If offsite, report to the site via the Site Access Facility (SAF).

4.8.2 If onsite or after arrival onsite, report to the Operational Support Facility and assume the responsiblities of Support Activites Director.

4.8.3 Establish personnel accountability at OSF per EP-AD-12. Provide assistance in search and rescue operations as needed.

4.8.4 Activate Operational Support Facility per EP-OSF-2.

4.8.5 Establish OSF organization per EP-OSF-1.

4.8.6 Contact the Emergency Director for information on plant status and immediate actions.

4.8.7 Continue to direct emergency maintenance activities.

4.9 Security Director

4.9.1 If offsite, report to the site via the Site Access Facility (SAF).

4.9.2 If onsite or after arrival onsite verify that EP-SEC-?, Security Force Response to Emergencies is being implemented for a General Emergency.

4.9.3 Contact additional Security Force personnel to augment the onshift staff as needed.

4.10 Plant Personnel

4.10.1 If on site, all personnel shall assemble at the Emergency Assembly Areas (Table AD-12.1) or emergency duty location after Gai-tronics announcement and sounding of the plant emergency alarm.

4.10.2 After notification, offsite emrgency response personnel should report to their emergency duty locations. All personnel entries to the site should be via the Site Access Facility.

4.11 Final Conditions (One of the following)

4.11.1 The General Emergency has been de-escalated to:

a. an Unusual Event and EP-AD-3, Unusual Event, is being implemented.

b. an Alert and EP-AD-4, Alert, is being implemented.

c. a Site Emergency and EP-AD-5, Site Emergency, is being implemented.

4.11.2 The General Emergency has been closed out with no recovery operations needed and offsite agencies have been informed per EP-AD-10.

4.11.3 The General Emergency has been closed out, EP-AD-14 Recovery Planning is being implemented, and offsite support agencies have been contacted, per EP-AD-10.

WISCONSIN PUBLIC SERVICE CORPORATION Kewaunee Nuclear Power Plant EMERGENCY PLAN IMPLEMENTING PROCEDURE	NO. EP-AD-19 TITLE: Protective Action Guidelines DATE: SEP 29 1983 | PAGE 1 of 7
REVIEWED BY M L March R C Bulley	APPROVED BY [signature]

1.0 APPLICABILITY

Upon declaration of a plant emergency, the Emergency Director is responsible for using this procedure to provide offsite authorities with protective action recommendations.

2.0 PRECAUTIONS

2.1 The Shift Supervisor is the initial Emergency Director in all situations. Any transfer of this responsibility should be documented in the Shift Supervisor's log and communicated to all onsite directors.

2.2 The responsibility for protective action recommendations to offsite authorities may not be delegated by the Emergency Director.

NOTE: This becomes the responsibility of the Emergency Response Manager after EOF activation.

2.3 As more information becomes available, initial protective action recommendations should be adjusted in accordance with dose projections, time available to evacuate, estimated evacuation times, and meteorological conditions.

3.0 REFERENCES

3.1 EPA-52011-75-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents (June 1980).

3.2 NUREG/CR-2925, In-Plant Considerations for Optimal Offsite Response to Reactor Accidents (November 1982).

3.3 21 CFR Part 1090, U.S. Food and Drug Administration.

4.0 INSTRUCTIONS

4.1 Initial Protective Action Recommendations

4.1.1 If projected doses or field sample analyses are available, protective action recommendations should be determined implementing Section 4.2 and the following recommendations are not mandatory.

4.1.2 Unusual Event - Protective actions for the general public should not be required.

4.1.3 Alert

a. As a precautionary measure, onsite members of the general public (visitors, fishermen, tourists, farmers, etc.) will be directed to leave the site.

b. Control measures for site access/egress will be established.

c. Protective actions for the general public should not be required.

4.1.4 Site Emergency

a. Onsite members of the general public will be directed to leave the site.

b. Control measures for site access/egress will be established.

c. If the Site Emergency is the result of a release or a significant release is imminent, recommend to offsite authorities that personnel within a two mile radius of the plant take shelter. If not, protective actions for the general public should not be required.

4.1.5 General Emergency (Minimal or No Core Damage)

a. Onsite members of the general public will be directed to leave the site.

b. Control measures for site access/egress will be established.

c. Recommend to offsite authorities that personnel within a 2 mile radius and the three 5 mile downwind sectors of the plant take shelter.

4.1.6 General Emergency (Substantial Core Damage)

a. Onsite members of the general public will be directed to leave the site.

b. Control measures for site access/egress will be established.

c. Recommend to offsite authorities that personnel within a 2 mile radius of the plant be evacuated and within the three 10 mile downwind sectors of the plant take shelter.

4.2 Subsequent Protective Action Recommendations

4.2.1 Obtain current meteorological information from Technical Support Center.

4.2.2 Obtain most recent dose projections from Radiological Protection Director (RPD) or Environmental Protection Director (EPD).

4.2.3 Obtain field survey and sample results from EPD.

4.2.4 Compare all information obtained with Tables AD-19.1, AD-19.2, and AD-19.3 to determine offsite protective action recommendations.

4.2.5 Forward final recommendations to offsite authorities via the offsite agency communicator.

4.2.6 Continue to revise and adjust protective action recommendations as additional dose projections, surveys, and sample information becomes available.

TABLE AD-19.1

- Recommended protective actions to reduce whole body and thyroid dose from exposure to a gaseous plume

Projected Dose (Rem) to the Population	Recommended Actions[a]	Comments
Whole body <1 Thyroid <5	No planned protective actions.[b] State may issue an advisory to seek shelter and await further instructions. Monitor environmental radiation levels.	Previously recommended protective actions may be reconsidered or terminated.
Whole body 1 to <5 Thyroid 5 to <25	Seek shelter as a minimum. Consider evacuation. Evacuate unless constraints make it impractical. Monitor environmental radiation levels. Control access.	If constraints exist, special consideration should be given for evacuation of children and pregnant women.
Whole body 5 and above Thyroid 25 and above	Conduct mandatory evacuation. Monitor environmental radiation levels and adjust area for mandatory evacuation based on these levels. Control access.	Seeking shelter would be an alternative if evacuation were not immediately possible.
Projected Dose (Rem) to Emergency Team Workers		
Whole body 25 Thyroid 125	Control exposure of emergency team members to these levels except for lifesaving missions. (Appropriate controls for emergency workers, include time limitations, respirators, and stable iodine.)	Although respirators and stable iodine should be used where effective to control dose to emergency team workers, thyroid dose may not be a limiting factor for lifesaving missions.
Whole body 75	Control exposure of emergency team members performing lifesaving missions to this level. (Control of time of exposure will be most effective.)	

(a) These actions are recommended for planning purposes. Protective action decisions at the time of the incident must take existing conditions into consideration.

(b) At the time of the incident, officials may implement low-impact protective actions in keeping with the principle of maintaining radiation exposures as low as reasonably achievable.

TABLE AD-19.2

GUIDELINES FOR PROTECTION AGAINST INGESTION OF CONTAMINATION

I. GROUND CONTAMINATION

A. Action Levels

1. Projected whole-body dose above the ground $\geq$ 1 REM.

2. Ground Contamination levels $\geq 4.4 \times 10^7$ DPM/100cm^2 at t = 1 hr post-accident

3. Exposure rate $\geq$12 mR/hr at 1 meter above ground at t = 1 hr post-accident

B. Recommended Protective Actions

1. Evacuation of affected areas.

2. Restriction of entry to contaminated offsite areas until radiation level has decreased to State approved levels.

II. FOOD AND WATER CONTAMINATION

A. Action Levels

Preventive Level: 0.5 REM WB or bone, 1.5 REM thyroid

Emergency Level: 5 REM WB or bone, 15 REM thyroid

	Concentration in Milk or Water		Total Intake via all Food and Water Pathways		Pasture Grass (Fresh Weight)	
Nuclide*	Preventive Level (uCi/l)	Emergency Level (uCi/l)	Preventive Level (uCi)	Emergency Level (uCi)	Preventive Level (uCi/kg)	Emergency Level (uCi/kg)
I-131 (thyroid)	0.012	0.12	0.09	0.9	0.27	2.7
Cs-137 (whole body)	0.34	3.4	7	70	3.5	35
Sr-90 (bone)	0.007	0.08	0.2	2.0	0.7	7
Sr-89 (bone)	0.13	1.3	2.6	26	13	130

* If other nuclides are present, Reg. Guide 1.109 will be used to calculate the dose to the critical organ(s). Infants are the critical segment of the population.

TABLE AD-19.2 (cont.)

GUIDELINES FOR PROTECTION AGAINST INGESTION OF CONTAMINATION

B. Recommended Protective Actions

Preventive Level	Emergency
1. Removal of lactating dairy cows from contaminated pasture and substitution of uncontaminated stored feed.	Isolate feed and water from its introduction into commerce after considering:
2. Substitute source of uncontaminated water.	a. availability of other possible actions;
3. Withhold contaminated milk from market to allow radioactive decay.	b. importance of particular food in nutrition;
4. Divert fluid milk to production of dry whole milk, butter, etc.	c. time and effort to take action;
	d. availability of other foods.

TABLE AD-19.3

EVACUATION TIME ESTIMATES

DISTANCE FROM PLANT (MILES)	MAP SECTORS	RESIDENT POPULATION	RESIDENT POPULATION VEHICLES	AREA SQ. (MILES)	NORMAL CONDITIONS				ADVERSE CONDITIONS			
					NOTIFICATION TIME (MINUTES)	EVACUATION TIME (MINUTES)	TOTAL (MINUTES)	EVACUATION CONFIRMATION (MINUTES)	NOTIFICATION TIME (MINUTES)	EVACUATION TIME (MINUTES)	TOTAL (MINUTES)	EVACUATION CONFIRMATION (MINUTES)
2	B,A,R,Q,P, N,M,L,K (202 ½°)	51	68	7	15 [75]	60	75 [135]	15	20 [100]	80	100 [180]	20
5	B,A,R,Q,P (112 ½°)	632	280	25	30	60	90	30	40	80	120	40
5	N,M,L,K,J (112 ½°)	632	424	25	30	60	90	30	40	80	120	40
10	B,A,R,Q,P (112 ½°)	5,703	2,316	100	120	60	180	120	160	80	120	160
10	N,M,L,K,J (112 ½°)	4,674	2,796	100	120	60	180	120	160	80	120	160
POINT BEACH STATE PARK	J	UP TO 1,200*	250	N/A	90	60	150	60	15	45	60	15

[ ] INCLUDES TIME REQUIRED FOR ASSEMBLY OF NOTIFICATION TEAMS AT PLANT SITE.

NOTE: EVACUATION OUTSIDE THE TWO-MILE ZONE (LPZ) INVOLVED A DELIBERATE DECISION MAKING PROCESS WITH INTERACTION BETWEEN WPSC AND THE STATE DIVISION OF EMERGENCY GOVERNMENT, AND A FINAL DECISION BY THE GOVERNOR. THIS PROCESS AND THE ASSEMBLY OF NOTIFICATION TEAMS WOULD BE PERFORMED CONCURRENTLY; THEREFORE, ASSEMBLY TIME IS NOT INCLUDED IN THE EVACUATION TIME ESTIMATES OUTSIDE THE TWO-MILE ZONE.

* ONLY ABOUT 100 PERSONS ARE ASSUMED TO BE IN THE STATE FOREST DURING ADVERSE WEATHER CONDITIONS.

WISCONSIN PUBLIC SERVICE CORPORATION Kewaunee Nuclear Power Plant EMERGENCY PLAN IMPLEMENTING PROCEDURE	NO. EP-RET-2 REV. D TITLE: Inplant Radiation Emergency Team DATE: SEP 29 1983 / PAGE 1 of 4
REVIEWED BY [signature]	APPROVED BY [signature]

1.0 APPLICABILITY

The Inplant Radiation Emergency Team (RET) will be activated upon declaration of an Alert, Site Emergency or General Emergency, or at the discretion of the Radiological Protection Director (RPD) or Emergency Director (ED).

2.0 PRECAUTIONS

Generally, but depending on the nature, class and magnitude of the emergency, the following list of priorities should be followed by the Inplant RET:

2.1 Protection of personnel from excessive or overexposure to radiation and radioactive materials through radiation surveys and air activity surveys.

2.2 Search and rescue for life saving.

2.3 First aid.

2.4 Issue dosimetry respiratory equipment; document radiation exposures to personnel.

2.5 Health Physics (HP) coverage for operation or repair of vital equipment.

2.6 Controlled Area access restrictions.

2.7 Assist Fire Brigade.

2.8 Location, sampling, and gaseous effluent release characterization.

2.9 Off-site Dose Prediction.

2.10 Assist chemistry personnel for primary coolant and containment post-accident sampling and analysis.

2.11 Assist and support the site and environmental monitoring teams as required.

3.0 REFERENCES

3.1 EP-RET-1, Radiation Emergency Team Organization

3.2 EP-RET-4B, Radiological Controls at Site Access Facility (SAF)

3.3 EP-SEC-2, Security Force Response to Emergencies

3.4 EP-SEC-4, Dosimetry Issue at SAF

3.5 EP-AD-11, Emergency Radiation Controls

4.0 INSTRUCTIONS

4.1 Immediate Action

4.1.1 If on site, assemble in the Radiation Protection Office (RPO). If this area is not habitable, report to the Radiological Analysis Facility (RAF).

4.1.2 If notified when off-site, report to the plant site from the West, stopping first at the Site Access Facility (SAF). Contact the RPO for instructions on entry routes into the plant and to be advised as to the nature, class and magnitude of the emergency.

4.1.3 Obtain necessary dosimetry, protective clothing and equipment at the SAF prior to entering the plant (EP-RET-4B).

4.1.4 Cooperate with Security for maintaining personnel accountability records upon arrival at SAF. (EP-SEC-2, EP-SEC-4)

4.1.5 If on-shift or on-site immediately implement procedure EP-RET-2A, "RPO/RAF Activation." Check that all emergency equipment requirements are met and perform initial tests and checks as required.

4.1.6 Contact the Technical Support Center for meteorological conditions (wind speed, wind direction, Delta T, and temperature). Record all values in the RPO log.

4.1.7 Determine if any abnormal airborne gaseous radioactive releases are occurring (EP-RET-2B).

4.1.8 Restrict access into the Controlled Area except as authorized by the Emergency Director or the Radiological Protection Director for immediate operation or repairs to vital equipment.

4.1.9 Issue emergency dosimetry and respiratory equipment as required.

4.1.10 Accompany emergency repair teams entering the auxiliary building or areas of unknown dose rates and provide radiological protection coverage. Document all entries performed for immediate repair/ operation or search and rescue on an Emergency Radiation Work Permit. (see EP-AD-11)

NOTE: Follow emergency radiation dose guidelines listed in part 2.0 of EP-RET-2D.

4.2 Subsequent Actions

The following actions are not immediate responses but rather are subsequent actions that can be taken to mitigate the emergency condition. Any or all of the following actions may be performed by the Inplant RET when directed by the RPD or Emergency Director.

4.2.1 Emergency entries into high radiation and contamination areas for surveying and dose rate documentation purposes. (EP-RET-2D)

4.2.2 Sampling of airborne gaseous radioactive release paths to the environment (EP-RET-2B).

4.2.3 Plume predictions and Off-site Dose Projections. (EP-RET-5 or 5A, EP-RET-6)

4.2.4 Documentation of doses received, entries made and work performed under emergency conditions. (EP-AD-11)

4.2.5 Recovery Planning. (EP-AD-15)

4.2.6 Monitoring for continued habitability of Site Facilities. (EP-RET-4C)

4.2.7 Contamination Control at the Two Rivers Hospital. (EP-RET-8)

4.2.8 Interface with Point Beach Nuclear Plant for sample analysis, additional emergency equipment requirements, sample transportation, assisting with injuries, etc.

4.2.9 Interim storage for highly contaminated samples.

4.2.10 Implementation and distribution of thyroid blocking agents.

4.2.11 Availability and procurement of additional spare parts which may be required.

4.2.12 Source check/calibration checks of radiation detection instruments to assure proper operation.

4.2.13 Storage or disposal of contaminated items and clothing, operation of decon laundry, area maintenance of stepoff pads.

4.2.14 Surveys to control the spread of contamination out of the Controlled Area and the plant.

4.2.15 Availability of sufficient decontamination equipment.

4.2.16 Interface with Teledyne Laboratories for sample analysis if requested.

4.2.17 Decontamination and cleaning of respiratory equipment. If the respirator cleaning room is not habitable, set up an area in the RAF for respirator cleaning and decon. Refer to RC-HP-32D, paragraph 3.2.

WISCONSIN PUBLIC SERVICE CORPORATION Kewaunee Nuclear Power Plant EMERGENCY PLAN IMPLEMENTING PROCEDURE	NO. EP-RET-5A REV. B TITLE: Plume Projection (Backup Method DATE: SEP 20 1983 PAGE 1 of 3
REVIEWED BY [signature]	APPROVED BY [signature]

1.0 APPLICABILITY

This procedure can be utilized during any incident that involves a significant release of radioactive materials to the environment for the purpose of projecting a radiological dose impact.

2.0 PRECAUTIONS

2.1 If both the IBM personal computer and the IBM mainframe computer are not available for use, proceed to ENV-3E, 3F, and 3G for performing dose projection calculations.

2.2 Meteorological data should be re-evaluated every 30 minutes, or whenever significant changes occur, to determine if dose projection should be recalculated.

3.0 REFERENCE

3.1 U.S. NRC Regulatory Guide 1.109, Calculation of Annual Doses to Man from Routine Release of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR 50, Appendix I, Revision 1, October 1977.

3.2 U.S. EPA, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, EPA-520/1-75-001, September 1975. Appendix D Technical Bases for Methods to Estimate the Projected Thyroid Dose and Projected Whole Body Gamma Dose from Exposure to Airborne Radioiodines and Radioactive Noble Gases.

4.0 PRELIMINARY INSTRUCTIONS

4.1 Acquire the plant release data and meteorological data on Form RET-5.A.

4.2 For field sample data, acquire sample data on Form ENV-3C.2 and meteorological data on Form RET-5.A.

4.3 Acquire the 5 1/2 inch diskette labeled KNPP Emergency Dose Projection Program from the RAF or Rad Chem Clerk's file.

4.4 Turn on the IBM Personal Computer (P/C) and associated printer.

5.0 PROGRAM OPERATION

5.1 Insert the diskette into the P/C disk drive labeled A with the paper label up and towards you on the right front corner.

5.2 If the program does not auto load, press the CONTRol, ALTernate and DELete keys simultaneously to load the program. Update the clock if required. The P/C should then display a menu screen.

5.3 Data Entry

5.3.1 The program accepts engineering notation and inserts zeros where appropriate. Therefore, 3E3 will appear as 3.00E+03 or 2.5E-2 will appear as 2.50E+02.

5.3.2 The F1 key allows you to enter wind speed. Minimum acceptable speed is 0.7 mph.

5.3.3 The F2 key allows you to enter wind direction.

5.3.4 The F3 key allows you to determine stability class from Delta T, Sigma Theta, or National Weather Service (EP-ENV-3F).

5.3.5 The F4 key allows you to enter a positive or negative value for Delta T, Sigma theta, or a letter designation of stability class.

5.3.6 The F5 key allows you to enter release duration.

5.3.7 The F6 key activates the line printer. If OFF is selected the dose projection will be displayed on the screen and can be printed with the PRTSC key.

5.3.8 The F8 key is for future graphics display.

5.3.9 The F9 key allows you to account for the lake breeze effect and requests the data (see Form ENV 3.F1).

5.3.10 The F10 key allows you to enter plant or field data from RET-5.1 or ENV-3C.2.

5.4 After all data is entered, press F7 to execute the program. The selections remain the same from one run to the next unless changed by the operator. Analytical data has to be re-entered for each run.

5.5 To exit the program, return to the menu screen, press Control & Break simultaneously, and remove the diskette.

5.6 Transmit all results to the Radiological Protection Director.

FORM RET-5A
PLUME PROJECTION DATA SHEET

Reactor Trip Date _____ Time _____

MET Conditions: $\pm\Delta T$ _____ °F Wind Speed _____ mph

Sigma Theta _____ °

NWS Stability _____ Wind Direction _____ °

Expected Release Duration _____ hrs

Operating Fans Aux A Aux B Both SVA SVB Both None (circle one)

Stack Analytical Results:

Isotope	Conc.(uCi/cc)
Kr 85	
Kr 85m	
Kr 87	
Kr 88	
Xe 133	
Xe 133m	
Xe 135	
Xe 135m	
I-131	

Flow Rates cc/sec	Aux A	Aux B	Both	SVA	SVB	Both
	2.04E+7	1.96E+7	3.36E+7	4.36E+6	4.00E+6	8.61E+6

SPING RESULTS

Latest 10 min Iodine Average _____ uCi/cc Latest 10 min Gas Average _____ uCi/cc

---

STEAM RELEASE

Main Steam Line Monitor _____ R/hr SI flow rate _____ gpm

BY _____ DATE _____ TIME _____