

EMERGENCY PROCEDURES

<u>Procedure #</u>	<u>TITLE</u>	<u>CLASSIFICATION</u>	<u>DATE</u>
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EP-AD-3	Unusual Event	B	03-10-83
EP-AD-4	Alert	B	03-10-83
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EP-AD-6	General Emergency	B	03-10-83
EP-AD-7	Notification of Unusual Event	F	03-10-83
EP-AD-8	Notification of Alert	F	03-10-83
EP-AD-9	Notification of Site Emergency	F	03-10-83
EP-AD-10	Notification of General Emergency	F	03-10-83
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WISCONSIN PUBLIC SERVICE CORPORATION

Kewaunee Nuclear Power Plant

EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-1

REV. B

TITLE: Plant Emergency Organization

DATE: MAR 10 1983

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1.0 PURPOSE

This procedure describes the plant emergency organization for the Kewaunee Nuclear Power Plant (see Figure EP-AD-1.1) and personnel responsibilities during an emergency.

2.0 APPLICABILITY

This procedure will apply to any declared emergency as defined in EP-AD-2, Emergency Classification.

3.0 REFERENCES

3.1 Kewaunee Nuclear Power Plant Emergency Plan.

4.0 RESPONSIBILITIES

4.1 Shift Supervisor is responsible for:

- 4.1.1 Evaluating plant conditions and determining if an emergency condition exists as defined in EP-AD-2, Emergency Class Determination.
- 4.1.2 Directing and coordinating the initial response to the emergency to control and limit its effects.
- 4.1.3 Initiating required notifications per EP-AD-7, 8, 9 or 10 as to the nature and classification of the emergency.
- 4.1.4 Performing any other immediate functions of the Emergency Director (ED) until relieved by a designated Emergency Director.
- 4.1.5 Providing information and making recommendations to the Event Operations Director (EOD) or Emergency Director and obtaining their concurrence before making any planned changes in plant operations.

4.2 Shift Technical Adviser is responsible for:

- 4.2.1 Assisting the Shift Supervisor in assessing abnormal plant conditions and determining when an emergency exists as defined in EP-AD-2, Emergency Class Determination.
- 4.2.2 Providing technical and analytical support in the Control Room to diagnose abnormal events and to ensure adequate core cooling.
- 4.2.3 Providing essential technical information to offsite response agencies on a limited basis until relieved of this function by the Technical Support Center Director.
- 4.2.4 Providing continued assistance to the Shift Supervisor in the assessment of plant conditions.

4.3 Shift Communicator (STA-Alternate) is responsible for:

- 4.3.1 Notifying members of the emergency response organization of the emergency.
- 4.3.2 Notifying offsite emergency response organizations of the emergency per EP-AD-7, 8, 9 or 10.

4.4 Emergency Director (ED) is responsible for:

- 4.4.1 Overall direction and supervision of the plant emergency response organization.
- 4.4.2 Verifying that the emergency classification is properly determined and evaluating plant conditions in order to reclassify the emergency if/when appropriate.

NOTE: This responsibility may not be delegated.
- 4.4.3 The implementation of necessary protective actions to safeguard plant personnel.
- 4.4.4 Continuous accident assessment and corrective actions throughout the duration of the emergency.
- 4.4.5 Protective action recommendations to appropriate State and Local authorities until the arrival of Emergency Response Manager.

- 4.4.6 Reviewing and approving all exposures in excess of 10 CFR Part 20 limits.

NOTE: This responsibility may not be delegated.

- 4.4.7 Maintaining communications contact with the Emergency Response Manager concerning plant conditions and changes in the emergency situation.

4.5 Event Operations Director (EOD) is responsible for:

- 4.5.1 Assisting the Shift Supervisor with Control Room functions.
- 4.5.2 Maintaining communications with the Emergency Director and the Technical Support Center relative to plant status.
- 4.5.3 Evaluating the technical needs of the Control Room and requesting support from the Tech Support Center.
- 4.5.4 Maintaining cognizance of plant radwaste operations.
- 4.5.5 Providing the Emergency Director with operational parameters for assessment evaluations.
- 4.5.6 Providing plant parameters and meteorological data to the Radiological Protection Director for use in performing onsite and offsite dose projections.
- 4.5.7 Monitoring fire fighting operations and keeping Shift Supervisor informed of fire status.

4.6 Technical Support Center Director (TSCD) is responsible for:

- 4.6.1 Supervising and coordinating the activities of the Technical Support Center Staff, including systems engineering, core physics, and quality control operations.
- 4.6.2 Inplant technical support and logistics planning.
- 4.6.3 The acquisition and documentation of plant data and the control of records.
- 4.6.4 Maintaining communications from the Technical Support Center to the Control Room and other Emergency Response Facilities (ERF).
- 4.6.5 Maintaining plant status monitoring, performing accident assessment evaluations, recommending course of action to EOD and/or ED.

- 4.7 Support Activities Director (SAD) is responsible for:
 - 4.7.1 Directing and coordinating the emergency activities of maintenance and support personnel.
 - 4.7.2 Procurement of emergency electrical and mechanical equipment needed for maintenance operations.
 - 4.7.3 Implementing requests by the Emergency Director for changes or modifications to systems or components required to stabilize plant conditions.
 - 4.7.4 Evaluating manpower, equipment, and material necessary to support the emergency organization.
 - 4.7.5 Reviewing all work requests and assigning proper priority levels to each. Planning and scheduling all work in a manner necessary to attain and maintain plant safety system reliability.
- 4.8 Security Director is responsible for:
 - 4.8.1 Directing plant security personnel in the performance of security activities during emergency situations.
 - 4.8.2 Access control operations to ensure that security is maintained at emergency response facilities.
 - 4.8.3 Providing personnel accountability of all onsite emergency response personnel.
 - 4.8.4 Issuance of personnel dosimetry to emergency response personnel.
- 4.9 Radiological Protection Director (RPD) is responsible for:
 - 4.9.1 Supervising and coordinating the activities of the Inplant Radiation Emergency Team(s), Emergency Chemistry Team(s), and Site Radiation Emergency Team(s).
 - 4.9.2 Inplant radiation surveys in support of fire fighting, maintenance, repair or other emergency support activities.
 - 4.9.3 Radiological assessments and radiation dose predictions.

- 4.9.4 Initiating Protective Action recommendations to the Emergency Director.
 - 4.9.5 Inplant sampling and analysis necessary for the determination of plant radiological conditions.
 - 4.9.6 Decontamination activities.
 - 4.9.7 Processing and controlling radioactive waste.
 - 4.9.8 First aid and rescue operations.
- 4.10 Fire Action Groups
- 4.10.1 The Fire Brigade members on shift are responsible for:
 - a. Responding to fire alarms by reporting to their fire assembly areas.
 - b. Fighting fires within the Protected Area.
 - c. Reporting to the Control Room the status of the fire and fire fighting progress.
 - 4.10.2 The Fire Team members are responsible for:
 - a. Responding to fire emergencies during work hours by reporting to their fire assembly area.
 - b. Reporting to the plant if offsite when receiving a pager signal/message or notification of a fire at the plant.
 - c. Fighting fires at the plant.
 - d. Reporting to the Control Room the status of the fire and the fire fighting progress.
- 4.11 Plant personnel are responsible for reporting to their emergency assembly areas.

5.0 REQUIREMENTS

- 5.1 After declaration of a plant emergency, each director will implement the actions specified in the respective procedure: EP-AD-3 - Unusual Event, EP-AD-4 - Alert, EP-AD-5 - Site Emergency, and EP-AD-6 - General Emergency.
- 5.2 If for some reason, in any emergency situation, any of the primary designates for the key director positions are unavailable, their duties will be assumed by an alternate, in the order of priority listed in Table AD-1.1.

- 5.3 If the Shift Supervisor is incapacitated, Control Operator A will take charge of Control Room operations and the Shift Technical Adviser will assume the duties of the Emergency Director until relieved.
- 5.4 The Shift Technical Adviser will be onsite at all times during plant operations above cold shutdown.
- 5.5 The Event Operations Director must be a licensed Senior Reactor Operator or a WPS engineer trained in nuclear operations.
- 5.6 The Radiological Protection Director will ensure personnel radiation dose monitoring by providing appropriate dosimetry and maintaining personnel exposure records.
- 5.7 The Radiological Protection Director will perform onsite and offsite dose projections needed to determine appropriate protective action recommendations prior to Emergency Operations Facility activation.

FIGURE AD-1.1
PLANT EMERGENCY ORGANIZATION

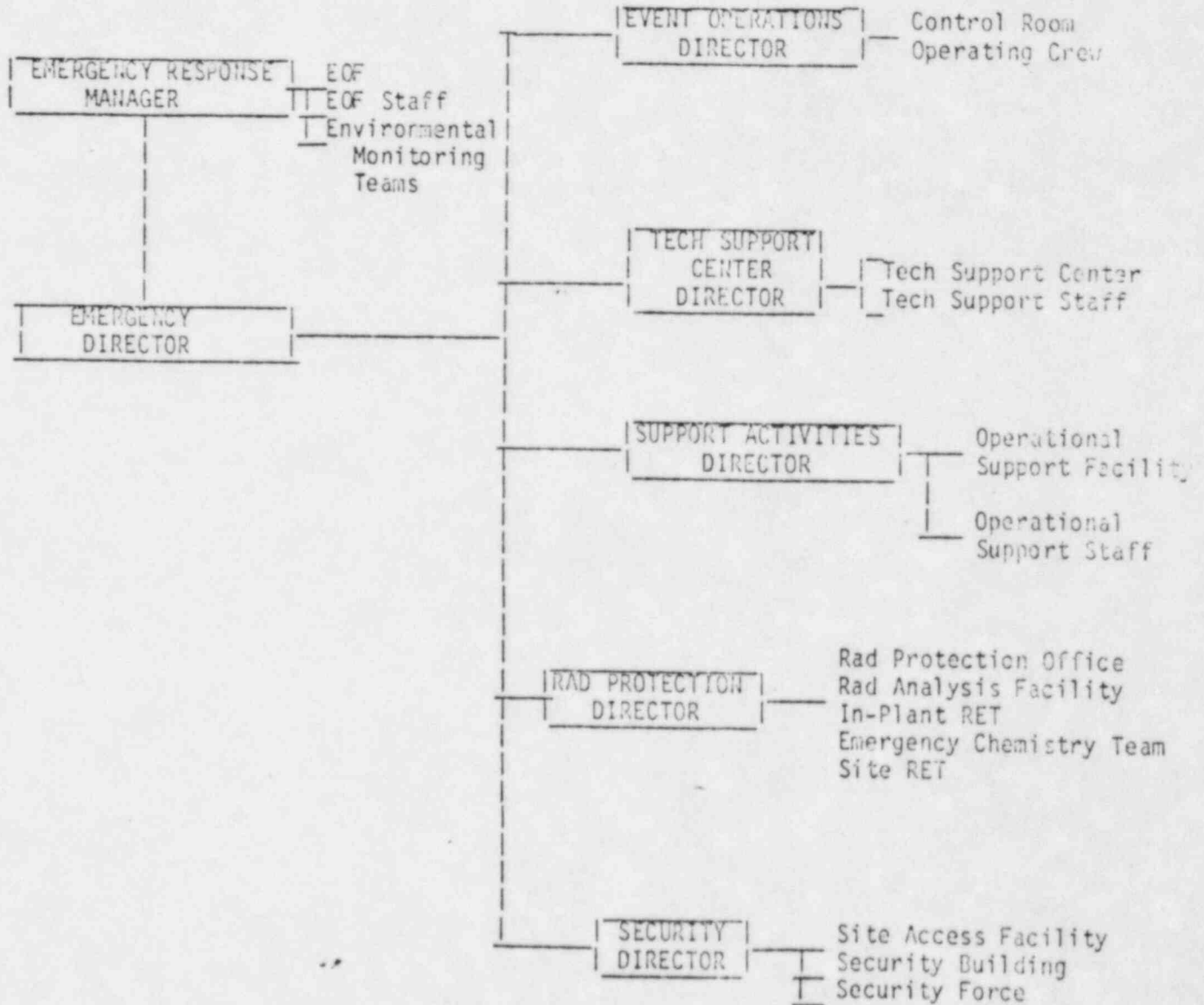


TABLE AD-1.1

PLANT EMERGENCY ORGANIZATION
CORRELATION BETWEEN NORMAL AND EMERGENCY ORGANIZATION TITLES

<u>EMERGENCY ORGANIZATION</u>	<u>NORMAL ORGANIZATION TITLE</u>	
	<u>PRINCIPAL</u>	<u>ALTERNATE</u>
Emergency Director	Plant Manager	1. Maintenance Superintendent 2. Operations Superintendent 3. Assist. Supt.- Operations 4. Plant Services Superintendent
Event Operations Director	Operations Superintendent	1. Assist. Supt.- Operations 2. Operations Supervisor 3. Operations Engineer 4. Training Supervisor
Technical Support Center Director	Technical Supervisor	1. Reactor Supervisor 2. Plant Nuclear Engineer 3. Reactor Engineer 4. Nuclear Systems Supervisor
Radiological Prot. Director	Plant Services Supt.	1. Health Physics Supervisor 2. Radiochemistry Supervisor 3. Asst. HP Supervisor 4. Plant Nuclear Engineer
Support Activities Director	Maintenance Superintendent	1. Assist. Supt.- Maintenance 2. Assist. Supt.- I&C 3. Instrument & Control Supervisor 4. Maintenance Supervisor
Security Director	Plant Security/ Administrative Supervisor	1. Security Coordinator 2. Security Force Facility Manager

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-2 REV. C
TITLE: Emergency Class Determination
DATE MAR 10 1983 | PAGE 1 OF 27

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APPROVED BY *[Signature]*

1.0 APPLICABILITY

This procedure is to be used as guidance in determining the proper emergency classification listed below in order to activate the appropriate level of response from the Kewaunee Nuclear Power Plant (KNPP) emergency response organization and offsite response organization.

- 1.1 Unusual Event - Events in progress or have occurred which indicate a potential degradation of the level of safety of the plant. No releases of radioactive material requiring offsite response or monitoring are expected.
- 1.2 Alert - Events in progress or having occurred which involve an actual or potential substantial degradation of the level of safety of the plant. Any releases expected to be limited to small fractions of the EPA Protective Action Guideline (PAG) exposure level.
- 1.3 Site Emergency - Events in progress or having occurred which involve actual or imminent loss of major plant functions needed for protection of the public. Any major releases exceeding Technical Specification release limits but not expected to exceed EPA PAG exposure levels except near site boundary.
- 1.4 General Emergency - Events in progress or having occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity. Releases can be reasonably expected to exceed EPA PAG exposure levels offsite.

2.0 PRECAUTIONS

- 2.1 All plant monitors indicating emergency classification levels being exceeded should be validated prior to declaring an emergency class.

3.0 REFERENCES

- 3.1 KNPP Emergency Plan
- 3.2 EP-AD-1, Plant Emergency Organization

4.0 INSTRUCTIONS

- 4.1 During abnormal plant conditions, refer to Table EP-AD-2.1, Emergency Classifications, and the applicable chart to determine if a plant emergency exists.
- 4.2 If a plant emergency exists, perform the required actions of the respective emergency action level procedures listed below:
 - 4.2.1 EP-AD-3, Unusual Event
 - 4.2.2 EP-AD-4, Alert
 - 4.2.3 EP-AD-5, Site Emergency
 - 4.2.4 EP-AD-6, General Emergency
- 4.3 As plant conditions change, continue to refer to the Emergency Classification tables to determine if the emergency should be reclassified.
- 4.4 If the plant has been brought to a condition below all the emergency classification levels, the emergency can be closed out.
- 4.5 If plant conditions are stabilized and no further degradation is imminent, however, conditions remain above the emergency action level, the emergency can be closed out and plant recovery operations should be initiated, per EP-AD-15.

TABLE EP-AD-2.1
EMERGENCY CLASSIFICATIONS

The following charts are separated into different abnormal operating conditions which may, depending upon their severity, be classified as an Unusual Event, Alert, Site Emergency, or General Emergency.

	<u>CHART</u>	<u>PAGE</u>
Abnormal Radiological Effluent	A	4
Fuel Damage Indication	B	10
Primary Leak to LOCA	C	11
Primary/Secondary Leak	D	12
Loss of Power	E	13
Engineered Safety Feature Anomaly	F	14
Fire and Fire Protection	G	15
Loss of Indication	H	16
Security Contingency	I	17
Primary System Anomaly	J	18
Secondary Side Anomaly	K	19
Miscellaneous Abnormal Plant Conditions	L	20
Personnel Injury	M	22
Earthquake	N	23
Flood, Low Water or Seiche	O	24
Tornado or High Winds	P	25
External Events	Q	26
Auxiliary Building Stack High Range Monitor Reading versus Release Duration for Emergency Class determination	Fig. AD-2.1 and Fig. AD-2.2 and Fig. AD-2.3 and Fig. AD-2.4	6 7 8 9

TABLE EP-AD-2.1
 CHART A

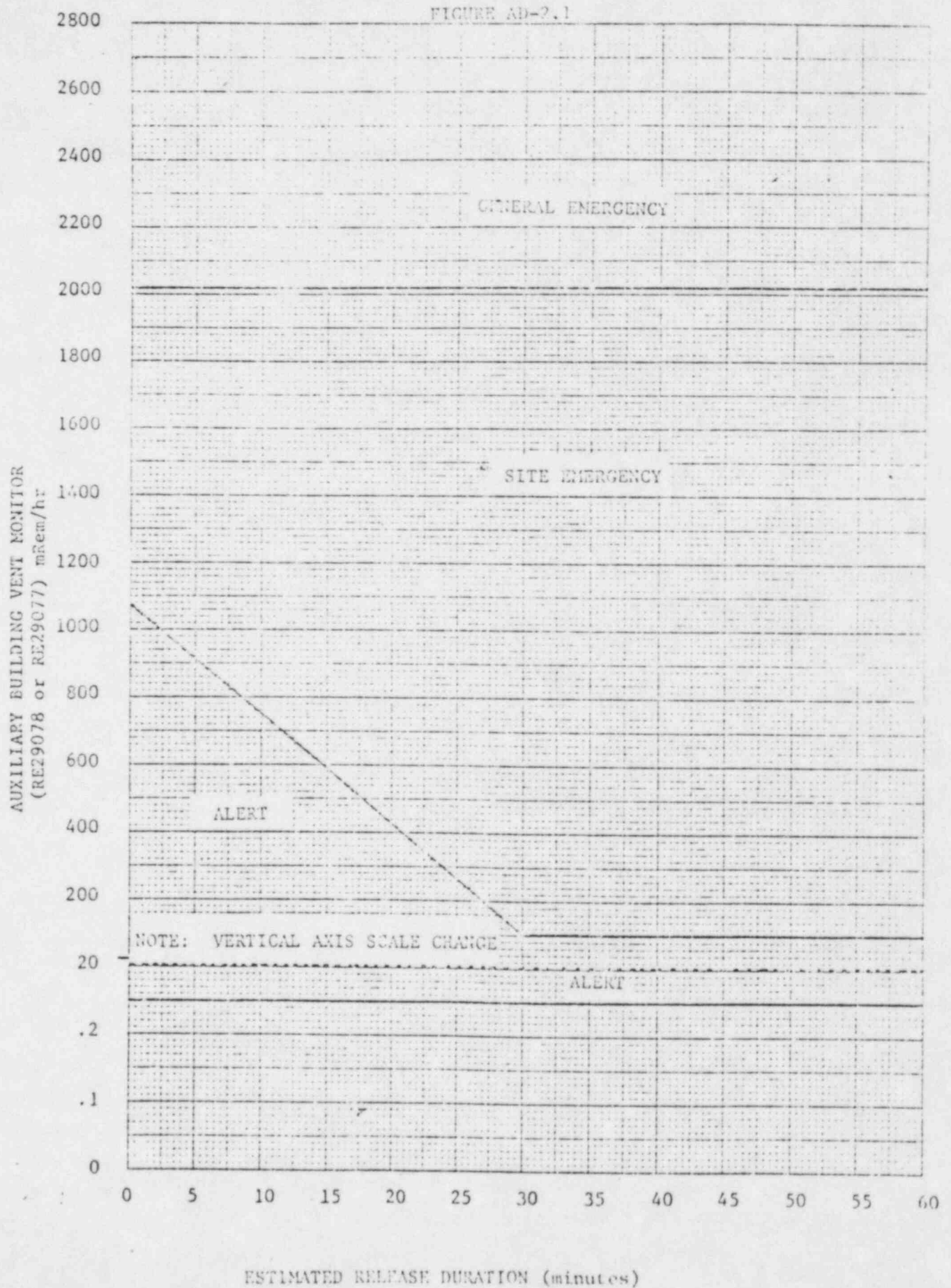
ABNORMAL RADIOLOGICAL EFFLUENT

EMERGENCY CLASSIFICATION CRITERIA	CLASSIFICATION	KNPP INDICATION
Radiological Effluent Technical Specification limits exceeded.	UNUSUAL EVENT	<u>Instantaneous Releases</u> 1 SV Exhaust Fan Operating R-13 > 50,000 CPM R-14 > 125,000 CPM 2 SV Exhaust Fans Operating R-13 > 25,000 CPM R-14 > 50,000 CPM <u>Batch Release</u> See Tech Specs Section 3.9
Radiation levels or airborne contamination which indicate a severe degradation in the control or radioactive materials. (e.g. radiation levels suddenly increase by a factor of 1000)	ALERT	Containment R-2 > 6 R/hr R-11 > offscale R-12 > 400,000 CPM Charging Pump Area R-4 > 600 mR/hr Fuel Handling Area R-5 > 8 R/hr
Radiological effluents greater than 10 times Technical Specification instantaneous limits.	ALERT	1 SV Exhaust Fan Operating R-13 > 500,000 CPM R-14 > OFF SCALE 2 SV Exhaust Fans Operating R-13 > 250,000 CPM R-14 > 600,000 CPM

TABLE EP-AD-2.1
 CHART A (cont'd)

ABNORMAL RADIOLOGICAL EFFLUENT

EMERGENCY CLASSIFICATION CRITERIA	CLASSIFICATION	KEEP INDICATION:
<p>Effluent monitors detect levels corresponding to greater than 50 mR/hr (for 1/2 hour or greater than 500 mR/hr whole body for two minutes at the site boundary) for "adverse meteorology."</p>	<p>SITE EMERGENCY</p>	<p>1 SV Exhaust Fan Refer to Figure AD-2.1 or AD 2.3 2 Exhaust Fans Refer to Figure AD-2.2 or AD 2.8 Obtain average monitor reading and actual or projected release duration. The intersection is the Emergency Classification.</p>
<p>Projected or measured in the environs dose rates greater than 50 mR/hr (for 1/2 hour or greater than 500 mR/hr whole body for two minutes at the site boundary or five times these levels to the thyroid.)</p>	<p>SITE EMERGENCY</p>	<p>Projected or measured dose rates to be provided by the onshift HP, Rad. Protection Director or Environmental Monitoring Teams.</p>
<p>Effluent monitors detect levels corresponding to greater than 1 rem/hr whole body or 5 rem/hr thyroid at the site boundary under "actual meteorological" conditions.</p>	<p>GENERAL EMERGENCY</p>	<p>1 SV Exhaust Fan - Refer to Figure AD-2.1 or AD-2.3 2 SV Exhaust Fans - Refer to Figure AD-2.2 or AD-2.4 Obtain average monitor reading and actual or projected release duration. The intersection is the Emergency Classification.</p>
<p>Projected or measured in the environs dose rates greater than 1 R/hr. whole body or 5 R/hr. thyroid at the site boundary.</p>	<p>GENERAL EMERGENCY</p>	<p>Projected or measured dose rates to be provided by the onshift HP, Rad. Protection Director or Environmental Monitoring Teams.</p>



EMERGENCY-CLASS DETERMINATION USING THE AUXILIARY BUILDING
VENT MONITOR WITH 2 ZONE EXHAUST FANS OPERATING

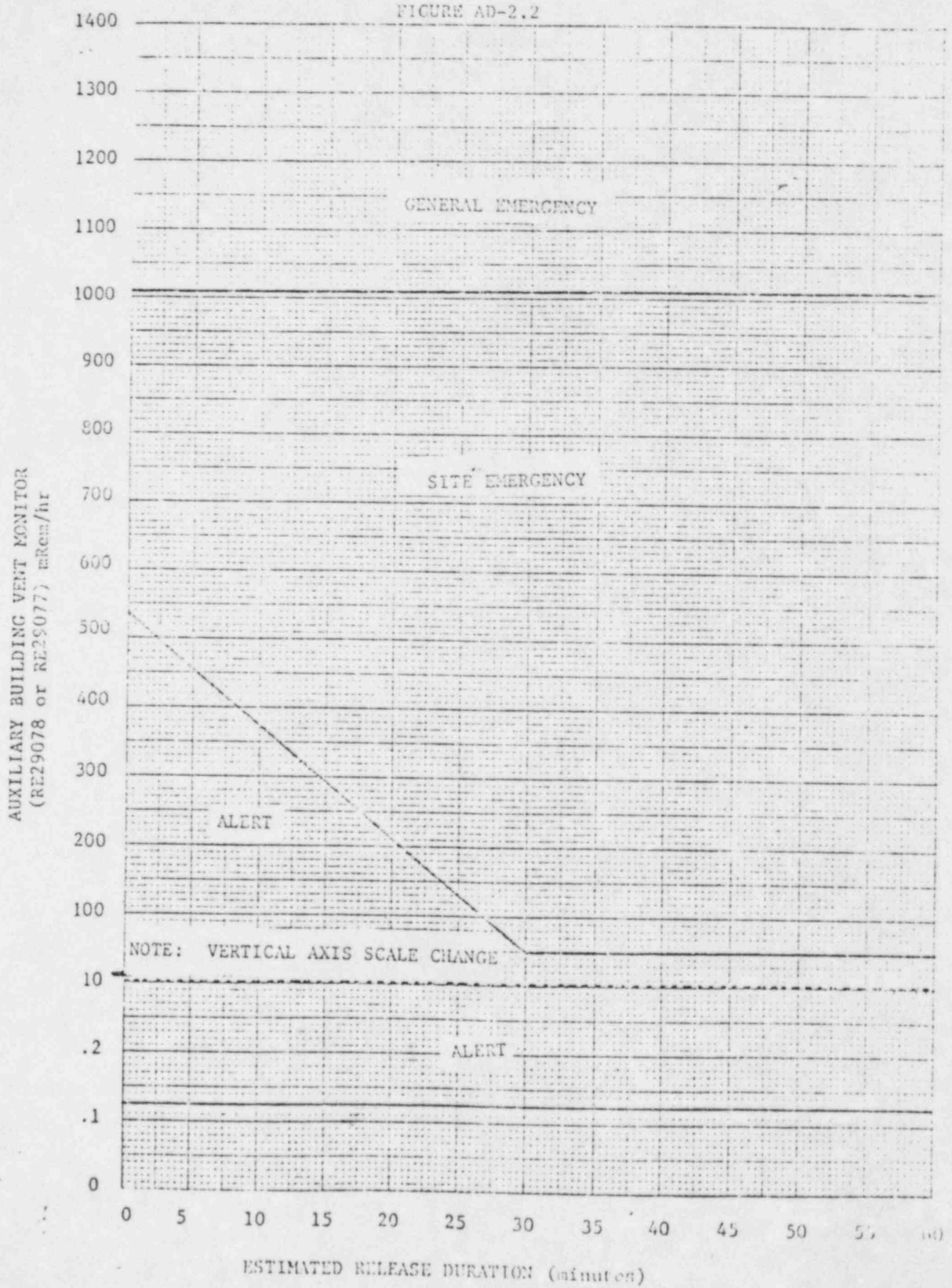


FIGURE AD-2.3

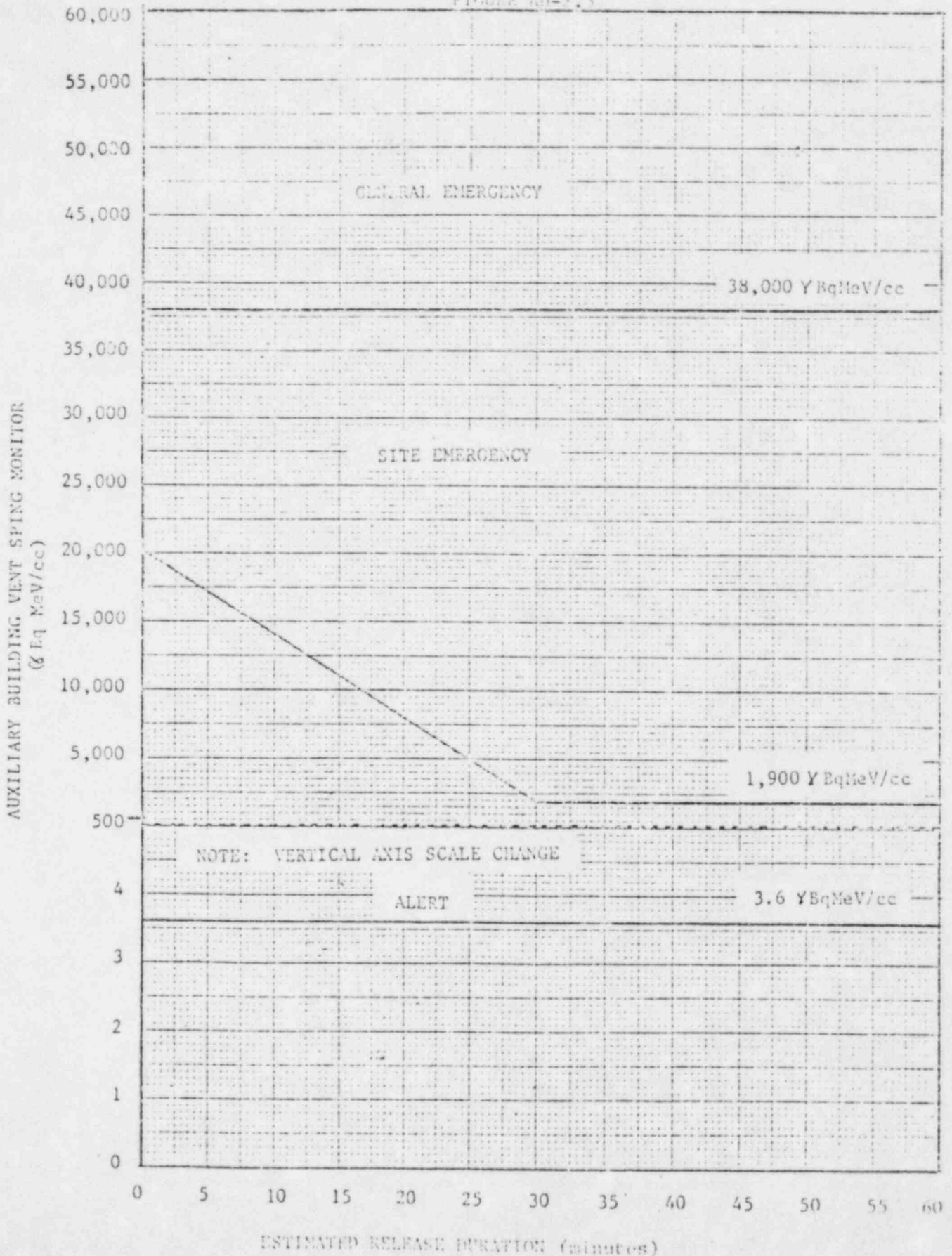


FIGURE AD-2.4

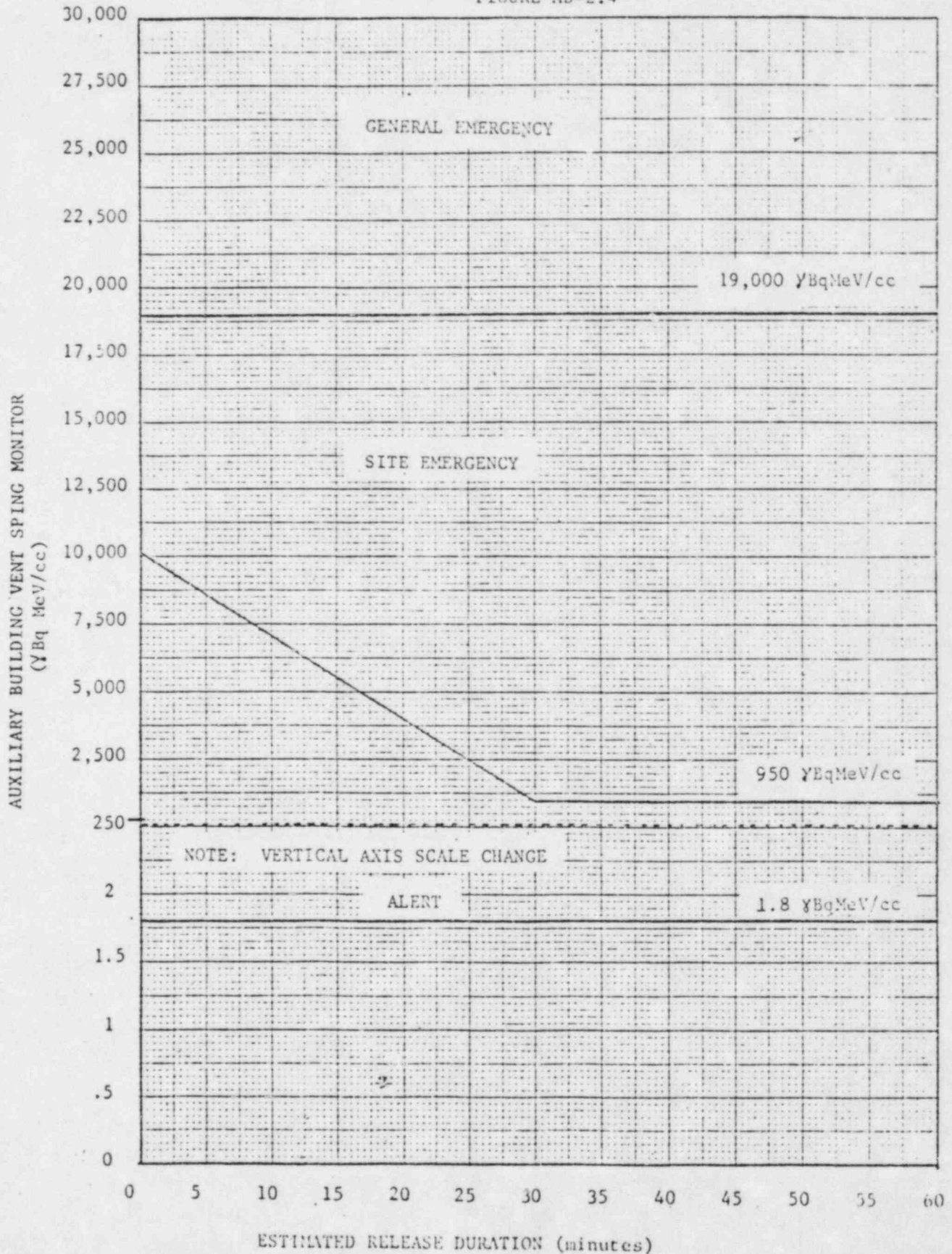


TABLE EP-AD-2.1
 CHART B
 FUEL DAMAGE INDICATION

EMERGENCY CLASSIFICATION CRITERIA	CLASSIFICATION	KRPP INDICATION
High reactor coolant activity sample	UNUSUAL EVENT	Exceed Technical Specification 3.1.c. Maximum Coolant Activity determined by reactor coolant sample analysis. Activity greater than $91/\bar{E}$.
Failed Fuel monitor indicates greater than 0.1% equivalent fuel failures within 30 minutes.	UNUSUAL EVENT	R-9 reads greater than 5 R/hr and is verified by portable instrument measurement.
Severe Loss of Fuel Cladding a. Very high coolant activity sample b. Failed fuel monitor indicates greater than 1% fuel failures within 30 minutes or 5% total fuel failures.	ALERT	R-9 indication is off scale, and laboratory analysis confirms greater than 300 uCi/ml of I-131 equivalent. Refer to EP-TSC-6, Assessment of Reactor Core Damage
Fuel damage accident with release of radioactivity to containment or auxiliary building.	ALERT	Containment R-11 > 5E6 CPM R-12 $\bar{\geq}$ 4E5 CPM Aux Bldg R-13 > 2.5E5 CPM R-14 $\bar{\geq}$ 6E5 CPM
Major damage to spent fuel in containment or auxiliary building	SITE EMERGENCY	Same monitor readings as above plus large object dropped in Reactor Core or Spent Fuel Pool or loss of water level below spent fuel level. (more than 1 spent fuel element damaged)
Plant conditions exist that make the release of large amounts of radioactivity in a short time period possible	GENERAL EMERGENCY	Any core melt situation with large fission product releases from containment possible

TABLE EP-AD-2.1
 CHART C

PRIMARY LEAK TO LOCA

EMERGENCY CLASSIFICATION CRITERIA	CLASSIFICATION	KNPP INDICATION
Exceeding Reactor Coolant System leak rate. Technical Specifications requiring reactor shutdown.	UNUSUAL EVENT	Any reactor shutdown required by Technical Specification, Section T.S. 3.1.d. Indicated leakage may be determined using Reactor Coolant System mass balance calculations performed by SP-36-002.
Reactor Coolant System leak rate greater than 50 GPM.	ALERT	Charging versus letdown flow indicates unidentified leakage > 50 GPM.
Reactor Coolant system leakage greater than make-up pump capacity	SITE EMERGENCY	Large Break SI system is activated and indications are verified per Emergency Operating Procedure E-0-07. Small Break RCS system pressure stabilizes above 750 psig and SI pump flow is indicated by flow meter or RMST level decrease.
(1) Loss of Coolant Accident with (2) Initial or subsequent failure of ECCS, and (3) Containment failure or potential failure exists, or Loss of 2 of 3 fission product barriers with a potential loss of 3rd barrier.	GENERAL EMERGENCY	(1) LOCA is verified per Emergency Operating Procedure E-0-10, -and- (2) ECCS failure is indicated by: -SI and RHR pumps not running or no flow to the reactor vessel indicated. - Incore thermocouples indicate greater than 1800°F - Subcooling meter is zero or negative. -and- (3) Failure or potential failure of containment is indicated by: - physical evidence of containment structure damage, or - Loss of all Fan Coil units and both trains of Containment Spray, or - Containment pressure exceeds 46 psig.

TABLE EP-AD-2.1
 CHART D

PRIMARY TO SECONDARY LEAK

EMERGENCY CLASSIFICATION CRITERIA	CLASSIFICATION	RPP INDICATION
Exceeding Primary to Secondary leak rate Technical Specification.	UNUSUAL EVENT	Any reactor shutdown required by Tech Specs 3.1.d.2.
Rapid gross failure of one steam generator tube with loss of offsite power.	ALERT	R-15 goes off scale high within 30 minutes, confirmed by R-19 increasing by a factor of 1000, or verified by S/G chemistry gross beta/gamma sample analysis. -plus- All three transformers: Main Aux., Reserve Aux., and Tertiary Aux., are de-energized.
Rapid failure of multiple steam generator tubes.	ALERT	R-15 goes off scale high within 30 minutes, confirmed by R-19 increasing by a factor of 1000, or verified by S/G chemistry gross beta/gamma sample analysis. -plus- Primary to Secondary leak rate greater than 800 GPM as indicated by SI pump flow or RWST level change.
Rapid failure of steam generator tubes with loss of offsite power.	SITE EMERGENCY	All 3 of the following indications are present: (1) Secondary side activity increase as indicated above. (2) Primary to Secondary flow > 800 GPM (3) All three transformers Main Aux., Res. Aux., and Tertiary Aux., are de-energized.

TABLE EP-AD-2.1
CHART E

EP-AD-2
MAR 10 1993
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LOSS OF POWER

EMERGENCY CLASSIFICATION CRITERIA	CLASSIFICATION	RISER INDICATION
Loss of offsite power -or- Loss of onsite AC power capability.	UNUSUAL EVENT	All three transformers: Main Aux, Reserve Aux, and Tertiary are de-energized. -or- Both Emergency Diesel Generators (D/G are inoperable.
Loss of offsite power -and- (short term) Loss of onsite AC power	ALERT	Buses 1-1 through 1-6 are de-energized, including the D/G supplies to buses 1-5 and 1-6. AC power is restored to bus 1-5 or 1-6 within 15 minutes.
Loss of offsite power -and- (long term) Loss of onsite AC power	SITE EMERGENCY	Buses 1-1 through 1-6 are de-energized including the D/G supplies to buses 1-5 and 1-6 for longer than 15 minutes.
Loss of all vital onsite DC power for more than 15 minutes	SITE EMERGENCY	Low voltage lockout or de-energized condition on all four DC distribution cabinets: BRA-113 BRB-113 BRA-114 BRB-114
Failure of offsite and onsite AC power -and- Total loss of Auxiliary Feedwater makeup capability for: Greater than 2 hours. (Loss of power plus loss of AFW would lead to fuel clad failure and potential containment failure)	GENERAL EMERGENCY	Buses 1-1 through 1-6 are de-energized including the D/G supplies to buses 1-5 and 1-6. -and- Loss of the turbine driven AFW pump. Conditions exists for greater than 2 hours.

TABLE EP-AD-2.1
CHART F

ENGINEERED SAFETY FEATURE ANOMALY

EMERGENCY CLASSIFICATION CRITERIA	CLASSIFICATION	KMPD INDICATION
Emergency core cooling initiated and discharged to the reactor vessel.	UNUSUAL EVENT	Safety Injection Sequence has been initiated, and either the SI pumps or RHR pumps have caused an unplanned injection of core cooling water into reactor vessel. This should be verified by system flows, comparison of discharge pressure versus RCS pressure, and/or BA/RWST level changes.
Loss of engineered safety feature function requiring shutdown by Technical Specifications.	UNUSUAL EVENT	Any shutdown required by Tech Specs Limiting Conditions for Operation, Section 3.3, Engineered Safety Features and Auxiliary Systems.
Complete loss of any function required for cold shutdown.	ALERT	Loss of operability of both trains of RHR for core cooling if the steam generators are unable to be utilized.
Failure of the Reactor Protection System to initiate and complete a reactor trip which brings the reactor subcritical.	ALERT	Failure of the reactor protection system to initiate and complete a reactor trip when required. (e.g. A turbine trip from full power without reactor trip. Indication would be increasing reactor coolant system pressure leading to lifting of pressurizer relief valves.)
Complete loss of any function needed for plant hot shutdown.	SITE EMERGENCY	Total loss of all auxiliary and main feedwater systems (e.g. loss of both feedwater pumps and all three auxiliary feedwater pumps) when the primary system temperature is above 350°F.

TABLE EP-AD-2.1
CHART G

FIRE AND FIRE PROTECTION

EMERGENCY CLASSIFICATION CRITERIA	CLASSIFICATION	KNPP INDICATION
Loss of Fire Protection System function requiring shutdown by Technical Specifications.	UNUSUAL EVENT	Kewaunee has no Technical Specifications which require shutdown with loss of a fire Protection System function.
A fire within the plant lasting more than 10 minutes.	UNUSUAL EVENT	A fire within the Administration Building, Technical Support Center, Turbine Building, Warehouse, Auxiliary Building, or Containment Building lasting more than 10 minutes.
A fire potentially affecting safety systems.	ALERT	A fire within the Auxiliary Bldg., Safeguards alley, D/G rooms or Screenhouse lasting more than 10 minutes that causes ESF equipment to be inoperable.
A fire compromising the functions of safety systems.	SITE EMERGENCY	A fire within the Auxiliary Bldg., Safeguards alley, D/G rooms or Screenhouse that has rendered both trains of ESF equipment that are needed to bring the plant to hot shutdown inoperable.

TABLE EP-AD-2.1
 CHART H

LOSS OF INDICATION

EMERGENCY CLASSIFICATION CRITERIA	CLASSIFICATION	KIPP INDICATION
Indications or alarms on process or effluent parameters not functional in Control Room to an extent requiring plant shutdown or other significant loss of assessment capability.	UNUSUAL EVENT	Refer to Technical Specification Sections 3.3, Engineered Safety Features and Auxiliary Systems, 3.5, Instrumentation System, and 3.10, Control Rod and Power Distribution Limits, to determine if plant shutdown is required.
Most or all alarms (annunciators) lost.	ALERT	Total loss of Annunciator System, Computer Alarms, and Sequence of Events Recorder.
Most or all alarms (annunciators) lost and a plant transient initiated or in progress.	SITE EMERGENCY	Total loss of Annunciator System, Computer Alarms, and Sequence of Events Recorder with an uncontrolled plant transient in progress or initiated during the loss.

TABLE EP-AD-2.1
CHART 1

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SECURITY CONTINGENCY

EMERGENCY CLASSIFICATION CRITERIA	CLASSIFICATION	KIAPP INDICATION
Security threat or attempted entry or attempted sabotage.	UNUSUAL EVENT	Examples: - Bomb threat accompanied by interception of bomb materials. - Adversary intercepted in the protected area. - Undetonated bomb found on premises.
Ongoing security compromise.	ALERT	Examples: - Armed attack on plant. - Bomb detonated within the protected area.
Imminent loss of physical control of the plant.	SITE EMERGENCY	Example: - Armed intruders within protected area about to enter Control Room.
Loss of physical control of the Plant	GENERAL EMERGENCY	Example: - Armed intruders have taken control of plant operations

TABLE EP-AD-2.1
 CHART J

PRIMARY SYSTEM ANOMALY

EMERGENCY CLASSIFICATION CRITERIA	CLASSIFICATION	KNPP INDICATION
Abnormal coolant temperature and/or pressure -or- abnormal fuel temperatures exceeding Technical Specification limits.	UNUSUAL EVENT	Technical Specification section T.S. 2.1 limits exceeded. Indications: - RCS pressure vs Tave exceeds Figure T.S. 2.1-1 - Subcooling meter indicates zero or negative. - Incore thermocouple readings exceed 1000°F -or- Fuel temperature limits are exceeded as determined by flux mapping and computer code calculations.
Coolant pump seizure leading to fuel failure.	ALERT	Primary flow transient and subsequent fuel failure indicated by: - Zero indication on one RCS loop flow - Overpressurization of RCS and relief valve lifting causing PRT temp and pressure alarms - R-9 indicates greater than 10 R/hr, verified by RCS sample analysis

TABLE EP-AD-2.1
 CHART K

SECONDARY SIDE ANOMALY

EMERGENCY CLASSIFICATION CRITERIA	CLASSIFICATION	KNPP INDICATION
Turbine rotating component failure causing rapid plant shutdown.	UNUSUAL EVENT	A failure of the turbine resulting in an immediate shutdown and/or overspeed condition and for which turbine repair requires major disassembly.
Rapid Depressurization of the secondary side.	UNUSUAL EVENT	The uncontrolled depressurization of the secondary system to the point where automatic safety injection is initiated (less than 500 psig steam generator pressure).
Steam line break with significant (greater than 10 GPM) primary to secondary leakage.	ALERT	Main steamline break that causes ECCS actuation (less than 500 psig S/G pressure) -and- R-15 or R-19 reading a factor of 1000 above normal, verified by S/G chemistry sample analysis -or- RCS to S/G leakage verified by mass inventory >10 GPM.
Steam line break with Primary to Secondary leak >50 GPM and Indication of Fuel Damage	SITE EMERGENCY	Main steamline break that causes ECCS actuation (less than 500 psig S/G pressure) -and R-15 or R-19 readings offscale, verified by S/G chemistry sample analysis -or- RCS to S/G leakage verified by mass inventory > 50 GPM -and R-9 indication >10 R/hr and verified by RCS chemistry sample analysis.

CHART LMISCELLANEOUS ABNORMAL PLANT CONDITIONS

EMERGENCY CLASSIFICATION CRITERIA	CLASSIFICATION	KNPP INDICATION
Loss of containment integrity requiring shutdown by Technical Specifications.	UNUSUAL EVENT	Refer to T.S. Section 3.6 to determine if shutdown is required.
Other plant conditions that warrant increased awareness on the part of plant staff or state and/or local authorities, and requires plant shutdown under Tech. Specifications.	UNUSUAL EVENT	Conditions at the discretion of the Emergency Director or his designated alternate. Examples include cooldown rate exceeding T.S. limits or pipe crack found during operation.
Evacuation of Control Room anticipated or required with control of shutdown system established from local stations.	ALERT	Evacuation of Control Room (E-0-06) with control at shutdown panel.
Evacuation of Control Room and control of shutdown systems not established from local stations.	SITE EMERGENCY	Evacuation of Control Room (E-0-06) and failure to establish control at shutdown panel within 15 minutes.

TABLE EP-AD-2.1
 CHART L (cont'd)

MISCELLANEOUS ABNORMAL PLANT CONDITIONS

EMERGENCY CLASSIFICATION CRITERIA	CLASSIFICATION	KNPP INDICATION
<p>Other plant conditions that make a release of large amounts of radioactivity in a short time period possible, e.g. any core melt situation</p> <p>Examples:</p> <ul style="list-style-type: none"> - Failure of Main FW and AFW systems for extended period without ECCS flow. Plus a containment failure is imminent. - Transient requiring the operation of shutdown systems with a failure of these shutdown systems. In addition failure of ECCS and containment failure is imminent. 	<p>GENERAL EMERGENCY</p>	<p>Two fission product barriers are lost with the potential or probability of losing the third barrier. (At least one verified indication in each category below.)</p> <p>Indications:</p> <p>Containment boundary potential failure</p> <ul style="list-style-type: none"> - pressure >46 psig - loss of containment cooling systems <p>RCS boundary</p> <ul style="list-style-type: none"> - no ECCS flow - failed open relief or Safety valve with no isolation capability - RCS break <p>Fuel Cladding</p> <ul style="list-style-type: none"> - R-S > 10 R/hr - RCS chemistry analysis

TABLE EP-AD-2.1
CHART M

PERSOINEL INJURY

EMERGENCY CLASSIFICATION CRITERIA	CLASSIFICATION	KNPP INDICATION
Transportation of contaminated and seriously injured individual from site to an offsite hospital.	UNUSUAL EVENT	Self-explanatory

TABLE EP-AD-2.1
 CHART II
 EARTHQUAKE

EMERGENCY CLASSIFICATION CRITERIA	CLASSIFICATION	KNPP INDICATION
Any earthquake felt in plant or detected on station seismic instrumentation.	UNUSUAL EVENT	Activation of seismic recorder (Annunciator 1-45) with EVENT light lit in relay room -and- Verified by actual physical ground shaking or by contacting U. of W. (Milwaukee) seismic center, at
An earthquake greater than Operational Basis Earthquake (OBE).	ALERT	Activation of seismic recorder (Ann. 1-45) with horizontal EVENT and LO lights lit in relay room -and- 0.06g horizontal ground acceleration experienced at site. Verified by contacting
An earthquake greater than Safe Shutdown Earthquake (SSE).	SITE EMERGENCY	Activation of seismic recorder (Ann. 1-45) with EVENT, LO and HI lights lit in relay room -and- 0.12g horizontal ground acceleration experienced at site. Verified by contacting

TABLE EP-AD-2.1
CHART 0

FLOOD, LOW WATER, OR SEICHE

EMERGENCY CLASSIFICATION CRITERIA	CLASSIFICATION	KNPP INDICATION
50 year flood, low water or seiche	UNUSUAL EVENT	High water level above 580 feet. Low forebay water level condition that cannot be cleared by stopping the circulating water system. Wave greater than 18 feet.
Flood, low water, or seiche near design levels.	ALERT	Design High Water Level = 582 feet Design Low Water Level = 575 feet. Design Deep Water WAVE = 22.5 feet

TABLE EP-AD-2.1
CHART PTORNADO OR HIGH WINDS

EMERGENCY CLASSIFICATION CRITERIA	CLASSIFICATION	KNPP INDICATION
Any tornado on site	UNUSUAL EVENT	A tornado within sight of the plant which has caused the loss of at least one of the offsite transmission lines.
Any tornado striking facility	ALERT	A tornado which strikes the facility and causes damage that affects the continued safe operation of the plant.
Sustained winds in excess of design levels with plant not in cold shutdown	SITE EMERGENCY	Winds in excess of 100 mph for greater than 1 hour.

TABLE EP-AD-2.1
CHART Q

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EXTERNAL EVENTS

EMERGENCY CLASSIFICATION CRITERIA	CLASSIFICATION	KNPP INDICATION
Aircraft crash onsite or unusual aircraft activity over facility.	UNUSUAL EVENT	An aircraft crash within the site boundary or notification from the security force or other source of higher than normal aircraft activity over the site.
Aircraft crash on facility	ALERT	An aircraft crash into plant buildings or switchyard which affects plant operation.
Missile impact from whatever source on facility.	ALERT	A missile strikes the facility which affects plant operation.
Entry into facility environs of uncontrolled toxic or flammable gases.	ALERT	Release of toxic or flammable gas from a ruptured container such that the gases enter the plant protected area or buildings.
Known explosion damage to facility affecting plant operation.	ALERT	Self-explanatory
Aircraft crash affecting vital structures by impact or fire.	SITE EMERGENCY	An aircraft crash into plant buildings which causes the loss of Engineered Safety Features required to bring the plant to hot shutdown conditions.

TABLE EP-AD-2.1
CHART Q (cont'd)

EXTERNAL EVENTS

EP-AD-2
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EMERGENCY CLASSIFICATION CRITERIA	CLASSIFICATION	KNPP INDICATION
Severe damage to safe shutdown equipment from missiles or explosion	SITE EMERGENCY	A missile strikes plant buildings or explosion occurs within a plant building which causes the loss of Engineered Safety Features required to bring the plant to hot shutdown conditions.
Entry of uncontrolled flammable gases into vital area, or entry of uncontrolled toxic gases into vital areas where lack of access to the area constitutes a safety problem.	SITE EMERGENCY	Release of flammable or toxic gas from a ruptured container which enters vital areas, as described at left. Portable H ₂ monitor detects explosive concentration of H ₂ in vital area.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO.	EP-AD-3	REV.	B
TITLE	Unusual Event		
DATE	MAR 10 1993	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 EGF activation.

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

2.3 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 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.

- 4.1.4 Direct a Communicator (or if one is not available, the Shift Technical Adviser) to perform the required notifications per EP-AD-7; Notification of Unusual Event.
- 4.1.5 Direct the Security Director or his alternate to implement EP-SEC-2, Security Force Response to Emergencies, for an Unusual Event.
- 4.1.6 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 (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 4.1.5 of this procedure have been performed.
- 4.2.4 Review the actions taken for the protection of plant personnel:
- EP-AD-11, Emergency Radiation Controls
 - EP-AD-12, Personnel Assembly and Accountability
 - EP-AD-13, Personnel Evacuation (Areas greater than 100 mR/hr)
 - EP-AD-14, Search and Rescue
 - 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 and status updates as needed.
- 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 RPU 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 responsibilities 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 responsibilities of Support Activities Director.
 - 4.8.3 Contact the Emergency 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.

Kewaunee Nuclear Power Plant

TITLE: Alert

EMERGENCY PLAN IMPLEMENTING PROCEDURE

DATE: MAR 10 1983

PAGE 1 of 6

REVIEWED BY

W. R. [unclear] / M. [unclear]

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

2.4 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 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 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 Direct a Communicator (or a if one is not available, the Shift Technical Adviser) to perform the required notifications per EP-AD-8, Notification of Alert.
- 4.1.5 Implement EP-OP-2, Emergency Activation of Control Room.
- 4.1.6 Direct the Security Director or his alternate to implement EP-SEC-2, Security Force Response to Emergencies, for an Alert.
- 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) 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 4.1.6 of this procedure have been performed.

- 4.2.4 Review the actions taken for the protection of plant personnel, including:
- a) If 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. 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 offsite authorities are provided with protective action recommendations and status updates as needed.
- 4.2.10 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 Access 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 If personnel assembly has occurred, 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).
- 4.6.8 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 If personnel assembly has occurred, 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 responsibilities of TSC Director.
- 4.7.3 If personnel assembly has occurred, 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 responsibilities of Support Activities Director.
- 4.8.3 If personnel assembly has occurred, 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 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 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

TITLE: Site Emergency

DATE: MAR 10 1993

PAGE 1 of 7

REVIEWED BY

[Signature]

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

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

4.1 Shift Supervisor

- 4.1.1 Contact the Shift Technical Advisor 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 Implement EP-OP-2, Emergency Activation of Control Room.
- 4.1.6 Direct the Security Director or his alternate to implement EP-SEC-2, Security Force Response to Emergencies, for a Site Emergency.
- 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) 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 4.1.6 of this procedure have been performed.
- 4.2.4 Review the actions taken for the protection of plant personnel, including:
- 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.
 - Initiate a plant or site evacuation if required per EP-AD-13, Personnel Evacuation. All non-essential personnel should be evacuated from the site.
 - 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 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.
- 4.3.2 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 EOP 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 Access 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 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 responsibilities of Support Activities 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-2, 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.
TITLE: General Emergency
DATE: MAR 10 1983 PAGE 1 of 6

REVIEWED BY [Signature]

APPROVED BY [Signature]

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

2.4 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 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 Adviser) to perform the required notifications per EP-AD-10, Notification of General Emergency.
 - 4.1.5 Implement EP-OP-2, Emergency Activation of Control Room.
 - 4.1.6 Direct the Security Director or his alternate to implement EP-SEC-2, Security Force Response to Emergencies, for a General Emergency.
 - 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) 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 4.1.6 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 evaluation from RPD.
- 4.2.9 Ensure that off-site authorities are provided with protective action recommendations 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 Access 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 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 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 responsibilities of Support Activities 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 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 emergency 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-7

REV.

TITLE: Notification of Unusual Event

DATE: MAR 10 1993

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REVIEWED BY CRBaker / M. [unclear]

APPROVED BY [Signature]

1.0 Applicability

1.1 This procedure is to be implemented upon declaration of an Unusual Event, or at the request of the Emergency Director.

2.0 Precautions

2.1 If an emergency class escalation occurs during the notifications, immediately implement the notification procedure for the new emergency classification.

2.2 All pages should be sent on both transmitters to ensure complete area coverage - Kewaunee transmitter (plant ext. Green Bay transmitter (plant ext. or Green Bay ext.

2.3 All Green Bay pager transmissions must have the pager number preceded by a 1.

3.0 References

3.1 EP-AD-2, Emergency Classification

3.2 EP-AD-17, Communications

3.3 EP-AD-15, Recovery Planning

4.0 Instructions

4.1 Initial notifications

INITIALS

___ 4.1.1 If fire emergency, verify that notification required by ACD 14.2 has been made.

___ 4.1.2 Notify one designate for each key emergency position. Designates are listed by call priority.

Home phone contact should be used initially if time permits.

The first designate for each plant director position can be contacted simultaneously by using pager code #.

Each director notified by pager should confirm contact with a telephone call to the plant.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-7

TITLE: Notification of Unusual Event

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Emergency Director (ED)

Ext.

Home #

Individual
Pager

Group
Pager

DESIGNATE CONTACTED _____ TIME _____

Event Operations Director (EOD)

DESIGNATE CONTACTED _____ TIME _____

Radiological Protection Director (RPD)

DESIGNATE CONTACTED _____ TIME _____

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. FP-AD-7

TITLE: Notification of Unusual Event

DATE: MAR 10 1983

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Technical Support Center Director (TSCD)

<u>Home #</u>	<u>Individual Pager</u>	<u>Group Pager</u>
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DESIGNATE CONTACTED _____ TIME _____

Support Activities Director (SAD)

DESIGNATE CONTACTED _____ TIME _____

Security Director

DESIGNATE CONTACTED _____ TIME _____

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-7

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4.1.3 Notify the Emergency Response Manager (ERM)

NOTE: If notified by pager, designate will confirm contact with a return telephone call to

Emergency Response Manager

Home#

Individual Pager Group Pager

DESIGNATE CONTACTED _____

TIME _____

4.1.4 Notify the state and local governments using the NAWAS phone with the following statement:

Kewaunee Nuclear calling Warning Center 1, East Central Area, Kewaunee County, and Manitowoc County. Please acknowledge.

Wait until all four areas have acknowledged, then continue. If any area fails to acknowledge, ask Warning Center 1 to ring that area.

All areas please take the following message:

This is _____ (title) at the Kewaunee Nuclear Plant. An incident has occurred at our facility and we are declaring an Unusual Event, at _____ (Time) on _____ (Date).

There (has/has not) been a radiological release to the environment.

Off-site consequences are not expected.

Please relay this information to Emergency Government immediately.

Please Verify this message by return telephone call to the appropriate number listed in your procedure.

Protective actions are not required at this time.

Please Acknowledge receipt of this message.

Wait until all four areas have acknowledged.

WISCONSIN PUBLIC SERVICE CORPORATION

Kewaunee Nuclear Power Plant

EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-7

TITLE: Notification of Unusual Event

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- 4.1.5 Notify the NRC (Headquarter, Bethesda) using the emergency notification system (ENS) Red Phone and provide them with the necessary information from a completed Significant Event checklist.
Commercial phone back-up:

HRC CONTACT _____ TIME _____

- 4.1.6 Perform any additional notifications requested by the Emergency Director.

INITIALS

Group Pager #

Time

_____ Operations Personnel	_____	_____
_____ Radiation/Chemistry Emergency Team	_____	_____
_____ Fire Team	_____	_____
_____ TSC Personnel	_____	_____

NOTE: If individual pager numbers are needed, reference EP-AD-17 Communications.

INITIALS

- _____ 4.1.7 If the TSC has been activated, transfer the notification function to the TSC staff. Inform them of notification status.

TIME _____

4.2 Unusual Event Status Updates

- 4.2.1 Notify the State and Local Government Agencies as necessary of any change in status using the status update form, AD-17.1 (sample copy can be found in EP-AD-17). Contact should be made using commercial lines or dial select phones if the EOC's have been activated.

Wisconsin Emergency Operations Center

State Patrol - Fond du Lac or
East Central Area EOC (If activated)

Kewaunee County Sheriff, or
Kewaunee County EOC (If activated)

Manitowoc County Sheriff, or
Manitowoc County EOC (If activated)

4.2.2 As necessary, notify the NRC of any changes in status using information from an updated Significant Event Checklist.

4.3 Final Conditions (one of the following)

INITIALS

____ 4.3.1 A higher class of emergency has been declared by the Emergency Director and one of the following procedures is being implemented:

- a. Notification of an Alert (EP-AD-8)
- b. Notification of a Site Emergency (EP-AD-9)
- c. Notification of a General Emergency (EP-AD-10)

____ 4.3.2 Unusual Event Close Out

a. Notify the previously contacted key emergency position designates of the emergency close-out.

INITIALS

____ Emergency Director

____ Event Operations Director

____ Radiological Protection Director

____ Technical Support Center Director

____ Support Activities Director

____ Emergency Response Manager

b. Notify the state and local governments of the emergency close-out.

____ Wisconsin Emergency Operations Center (EOC)

____ State Patrol Fond du Lac, or
East Central Area EOC (if activated)

____ Kewaunee County Sheriff, or
Kewaunee County EOC (if activated)

____ Manitowoc County Sheriff, or
Manitowoc County EOC (if activated)

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-7

TITLE: Notification of Unusual Event

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The following message should be given:

This is (title) at the Kewaunee Nuclear Power Plant. We have closed out the Unusual Event at (time) on (day). Recovery operations (are/are not) required.

This verbal close out will be followed with a written summary within 24 hours. Relay this information to Emergency Government immediately.

- c. Notify the NRC of the Unusual Event close-out with an update of plant conditions.

_____ NRC Notified

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-8

REV.

TITLE: Notification of Alert

DATE: MAR 10 1983

PAGE 1 of 10

REVIEWED BY

C. E. Rouse / M. J. ...

APPROVED BY

M. J. ...

1.0 APPLICABILITY

This procedure is to be implemented upon declaration of an Alert, or at the request of the Emergency Director.

2.0 Precautions

- 2.1 If an emergency class escalation occurs during the notifications, immediately implement the notification procedure for the new emergency classification.
- 2.2 All pages should be sent on both transmitters to ensure complete area coverage - Kewaunee transmitter (plant ext. . Green Bay transmitter (plant ext. or Green Bay ext.
- 2.3 All Green Bay pager transmissions must have the pager number preceded by a 1.

3.0 References

- 3.1 EP-AD-2, Emergency Classification
- 3.2 EP-AD-17, Communications
- 3.3 EP-AD-15, Recovery Planning

4.0 Instructions

4.1 Initial notifications

INITIALS

- 4.1.1 If fire emergency, verify that notification required by ACD 14.2 has been made.
- 4.1.2 Notify one designate for each key emergency position. Designates are listed by call priority.

Home phone contact should be used initially if time permits.

The first designate for each plant director position can be contacted simultaneously by using pager code #

Each director notified by pager should confirm contact with a return telephone call to the Plant.

WISCONSIN PUBLIC SERVICE CORPORATION

Kewaunee Nuclear Power Plant

EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-8

TITLE: Notification of Alert

DATE: MAR 10 1983

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Emergency Director (ED)

Ext.

Home #

Individual Group
Pager Pager

DESIGNATE CONTACTED _____ TIME _____

Event Operations Director (EOD)

DESIGNATE CONTACTED _____ TIME _____

Radiological Protection Director (RPD)

DESIGNATE CONTACTED _____ TIME _____

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-8

TITLE: Notification of Alert

DATE: MAR 10 1983

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Technical Support Center Director (TSCD)

Home#

Individual Pager Group Pager

DESIGNATE CONTACTED _____ TIME _____

Support Activities Director (SAD)

DESIGNATE CONTACTED _____ TIME _____

Security Director

DESIGNATE CONTACTED _____ TIME _____

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-8

TITLE: Notification of Alert

DATE: MAR 10 1993

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4.1.3 Notify the Emergency Response Manager (ERM)

NOTE: If notified by pager, designate will confirm contact with a return telephone call to

Emergency Response Manager

Home#

Individual Group
Pager Pager

DESIGNATE CONTACTED _____

TIME _____

INITIALS

4.1.4 Notify the state and local governments using the NAWAS phone.

NOTE: This becomes the responsibility of the EOF staff after EOF activation.

The following statment should be given:

Kewaunee Nuclear calling Warning Center 1, East Central Area, Kewaunee County, and Manitowoc County. Please acknowledge.

Wait until all four areas have acknowledged, then continue. If any area fails to acknowledge, ask Warning Center 1 to ring that area.

All areas please take the following message:

This is _____ (title) at the Kewaunee Nuclear Plant. An incident has occurred at our facility and we are declaring an Alert at _____ (Time) on _____ (Date).

There (has/has not) been a radiological release to the environment.

Off-site consequences are not expected.

Please relay this information to Emergency Government immediately.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-8	
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Please Verify this message by return telephone call to the appropriate number listed in your procedure.

Recommended protective actions are:

- a. Not required at this time.
- b. Take shelter in following areas:

(Location, sector and miles radius)

- c. Other _____ in _____
(Recommended Action) (Location)
- _____ in _____
(Recommended Action) (Location)

Please Acknowledge receipt of this message.

Wait until all four areas have acknowledged.

4.1.5 Notify the United States Coast Guard using commercial telephone lines with the text of the previous message.

NOTE: This becomes the responsibility of the EOF staff after EOF activation.

Day
Night

COAST GUARD CONTACT _____ TIME _____ INITIALS _____

4.1.6 Notify the NRC (Headquarters, Bethesda) using the emergency notification system (ENS) Red Phone and provide them with the necessary information from a completed Significant Event checklist.
Commercial phone back-up:

NRC CONTACT _____ TIME _____ INITIALS _____

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-8

TITLE: Notification of Alert

DATE: MAR 10 1983

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4.1.7 Perform any additional notifications requested by the Emergency Director.

INITIALS

	<u>Group Pager #</u>	<u>Time</u>
_____ Operations Personnel		_____
_____ Inplant/Chemistry/Site Radiation		_____
_____ Fire Team		_____
_____ TSC Personnel		_____

NOTE: If individual pager numbers are needed, reference EP-AD-17 Communications.

4.1.8 Transfer notification function to the Technical Support Center as soon as it has been fully activated and staffed.

TIME _____ INITIALS _____

4.1.9 If the EOF has been activated, transfer responsibility for notification of Coast Guard, and State and local agencies.

TIME _____ INITIALS _____

4.2 Alert Status Updates

4.2.1 Notify the State and Local Government Agencies as necessary of any change in status using the status update form, AD-17.1 (sample copy can be found in EP-AD-17). Contact should be made using commercial lines or dial select phones if the EOC's have been activated.

Wisconsin Emergency Operations Center

State Patrol - Fond du Lac or
East Central Area EOC (If activated)

Kewaunee County Sheriff, or
Kewaunee County EOC (If activated)

Manitowoc County Sheriff, or
Manitowoc County EOC (If activated)

WISCONSIN PUBLIC SERVICE CORPORATION

Kewaunee Nuclear Power Plant

EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-8

TITLE: Notification of Alert

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4.2.2 Notify the United States Coast Guard as necessary of any change in status with the text of the previous message using commercial telephone lines:

Day:
Night:

4.2.3 As necessary, notify the NRC of any changes in status using information from an updated Significant Event Checklist.

4.3 Final Conditions

(one of the following)

INITIALS

4.3.1 A higher class of emergency has been declared by the Emergency Director and one of the following procedures is being implemented:

- a. Notification of a Site Emergency (EP-AD-9)
- b. Notification of a General Emergency (EP-AD-10)

4.3.2 Alert De-escalation to an Unusual Event

A. Notify the key emergency directors of the emergency class change.

INITIALS

TIME

_____ Event Operations Director	_____
_____ Radiological Protection Director	_____
_____ Technical Support Center Director	_____
_____ Support Activities Director	_____
_____ Security Director	_____
_____ Emergency Response Manager	_____

B. Notify the support agencies of the emergency class change.

NOTE: This becomes the responsibility of the EOF staff after EOF activation.

_____ Wisconsin Emergency Operations Center (EOC)

CONTACT _____ TIME _____

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO.	EP-AD-8
TITLE: Notification of Alert	
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_____ State Patrol Fond du Lac, or East Central Area EOC (if activated)	CONTACT _____	TIME _____
_____ Kewaunee County Sheriff, or Kewaunee County EOC (if activated)	CONTACT _____	TIME _____
_____ Manitowoc County Sheriff, or Manitowoc County EOC (if activated)	CONTACT _____	TIME _____
_____ U.S. Coast Guard	CONTACT _____	TIME _____ Day Night

The following message should be given:

This is (title) at the Kewaunee Nuclear Power Plant. Conditions have improved and we have de-escalated the Alert to an Unusual Event at (time) on (day).

To repeat: The Alert has been de-escalated to an Unusual Event at (time) on (day). Relay this information to Emergency Government immediately.

- _____ C. Notify the NRC of the Alert de-escalation to an Unusual Event with an update of plant conditions.
- _____ D. Continue Emergency Plan Procedures with EP-AD-7, Unusual Event Procedures, beginning with Section 4.2 status update.

4.3.3 Alert Close Out

- A. Notify the key emergency directors of the emergency close out.

INITIALS

TIME

_____ Event Operations Director	_____
_____ Radiological Protection Director	_____
_____ Technical Support Center Director	_____

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. FP-AD-8

TITLE: Notification of Alert

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_____ Support Activities Director _____

_____ Security Director _____

_____ Emergency Response Manager _____

B. Notify the support agencies of the emergency close out.

NOTE: This becomes the responsibility of the EOF staff after EOF activation.

_____ Wisconsin Emergency Operations Center (EOC)

CONTACT _____ TIME _____

_____ State Patrol Fond du Lac, or
East Central Area EOC (if activated)

CONTACT _____ TIME _____

_____ Kewaunee County Sheriff, or
Kewaunee County EOC (if activated)

CONTACT _____ TIME _____

_____ Manitowoc County Sheriff, or
Manitowoc County EOC (if activated)

CONTACT _____ TIME _____

_____ U.S. Coast Guard

Day
Night

CONTACT _____ TIME _____

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-70-8

TITLE: Notification of Alert

DATE: MAR 10 1963

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The following message should be given:

This is (title) at the Kewaunee Nuclear Power Plant. We have closed out the Alert at (time) on (day). Recovery operations (are/are not) required.

To repeat: The Alert has been closed out at (time) on (day).
Relay this information to Emergency Government immediately.

This verbal close out will be followed with a written summary within 8 hours.

- C. Notify the NRC of the Alert close out with an update of plant conditions.

Kewaunee Nuclear Power Plant

TITLE: Notification of Site Emergency

EMERGENCY PLAN IMPLEMENTING PROCEDURE

DATE: MAR 10 1983

PAGE 1 of 9

REVIEWED BY

[Signature]

APPROVED BY

[Signature]

1.0 APPLICABILITY

1.1 This procedure is to be implemented upon declaration of a Site Emergency or at the request of the Emergency Director.

2.0 Precautions

- 2.1 If an emergency class escalation occurs during the notifications, immediately implement the notification procedure for the new emergency classification.
- 2.2 All pages should be sent on both transmitters to ensure complete area coverage: Kewaunee transmitter (plant ext. Green Bay transmitter (plant ext. or Green Bay ext.
- 2.3 All Green Bay pager transmissions must have the pager number preceded by a 1.

3.0 References

- 3.1 EP-AD-2, Emergency Classification
- 3.2 EP-AD-17, Communications
- 3.3 EP-AD-15, Recovery Planning

4.0 Instructions

4.1 Initial notifications

INITIALS

— 4.1.1 If fire emergency, verify that notification required by ACD 14.2 has been made.

— 4.1.2 Notify one designate for each key emergency position. Designates are listed by call priority.

Home phone contact should be used initially if time permits.

The first designate for each plant director position can be contacted simultaneously by using pager code #

Each director notified by pager should confirm contact with a return telephone call to the Plant.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-9	
TITLE: Notification of Site Emergency	
DATE: MAR 10 1983	PAGE 2 of 9

Emergency Director (ED)

Ext.

Home #

Individual Pager Group Pager

DESIGNATE CONTACTED _____ TIME _____

Event Operations Director (EOD)

DESIGNATE CONTACTED _____ TIME _____

Radiological Protection Director (RPD)

DESIGNATE CONTACTED _____ TIME _____

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-9	
TITLE: Notification of Site Emergency	
DATE: MAR 10 1983	PAGE 3 of 4

Technical Support Center Director (TSCD)

Home # Individual Group
 Pager Pager

DESIGNATE CONTACTED _____ TIME _____

Support Activities Director (SAD)

DESIGNATE CONTACTED _____ TIME _____

Security Director

DESIGNATE CONTACTED _____ TIME _____

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-9

TITLE: Notification of Site Emergency

DATE: MAR 10 1983

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4.1.3 Notify the Emergency Response Manager (ERM)

NOTE: If notified by pager, designate will confirm contact with a return telephone call to

Emergency Response Manager

Home #

Individual Pager Group Pager

INITIALS

DESIGNATE CONTACTED _____ TIME _____

4.1.4 Notify the state and local governments using the NAWAS phone with the following statement:

Kewaunee Nuclear calling Warning Center 1, East Central Area, Kewaunee County, and Manitowoc County. Please acknowledge.

Wait until all four areas have acknowledged, then continue. If any area fails to acknowledge, ask Warning Center 1 to ring that area.

All areas please take the following message:

This is _____ (title) at the Kewaunee Nuclear Plant. An incident has occurred at our facility and we are declaring a Site Emergency, at _____ on _____ .
(Time) (Date)

There (is/has not) been a radiological release to the environment.

Off-site consequences are expected.

Please relay this information to Emergency Government immediately.

Please Verify this message by return telephone call to the appropriate number listed in your procedure.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-9

TITLE: Notification of Site Emergency

DATE: MAR 10 1983

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Recommended protective actions are:

- a. Not required at this time.
- b. Take shelter in following areas:

(Location, sector and miles radius)

- c. Evacuate the following areas:

(Location, sector and miles radius)

- d. Other _____ in _____
(Recommended Action) (Location)
- _____ in _____
(Recommended Action) (Location)

Please Acknowledge receipt of this message.

Wait until all four areas have acknowledged.

- 4.1.5 Notify the United States Coast Guard using commercial telephone lines with the text of the previous message.

Day
Night

COAST GUARD CONTACT _____ TIME _____

- 4.1.6 Notify the NRC (Headquarter, Bethesda) using the Emergency Notification System (ENS) red phone and provide them with the necessary information from a completed Significant Event checklist.
Commercial phone back-up:

NRC CONTACT _____ TIME _____

- 4.1.7 Perform any additional notifications requested by the Emergency Director.

<u>INITIALS</u>	<u>Group Pager #</u>	<u>Time</u>
_____ Operations Personnel		_____
_____ Inplant/Chemistry/Site Radiation		_____
_____ Plant Electricians		_____
_____ I & C Personnel		_____

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-9

TITLE: Notification of Site Emergency

DATE: MAR 10 1983

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_____ Plant Mechanics _____

_____ Fire Team _____

_____ TSC Personnel _____

NOTE: If individual pager numbers are needed, reference EP-AD-17
Communications.

_____ 4.1.8 Transfer the notification function to the Technical Support Center as
soon as it has been fully activated and staffed.

TIME _____ INITIALS _____

_____ 4.1.9 Transfer the notification of the Coast Guard and State and local
agencies to the EOF after it has been fully activated and staffed.

TIME _____ INITIALS _____

4.2 Site Emergency Status Updates

4.2.1 Notify the State and Local Government Agencies as necessary of any
change in status using the status update form, AD-17.1 (sample
copy can be found in EP-AD-17). Contact should be made using
commercial lines or dial select phones if the EOC's have been activated.

Wisconsin Emergency Operations Center

State Patrol - Fond du Lac or
East Central Area EOC (If activated)

Kewaunee County Sheriff, or
Kewaunee County EOC (If activated)

Manitowoc County Sheriff, or
Manitowoc County EOC (If activated)

4.2.2 Notify the United States Coast Guard as necessary of any change
in status with the text of the previous message using commercial
telephone lines:

Day:
Night:

4.3 Final Conditions (one of the following)

INITIALS

_____ 4.3.1 A General Emergency has been declared and EP-AD-10, Notification of a General Emergency is being implemented.

4.3.2 Site Emergency De-escalation to Alert or Unusual Event

A. Notify the key emergency directors of the emergency class change.

INITIALS

TIME

_____ Event Operations Director	_____
_____ Radiological Protection Director	_____
_____ Technical Support Center Director	_____
_____ Support Activities Director	_____
_____ Security Director	_____
_____ Emergency Response Manager	_____

B. Notify the support agencies of the emergency class change.

NOTE: This becomes the responsibility at the EOF staff after EOF activation.

_____ Wisconsin Emergency Operations Center (EOC) _____

CONTACT _____ TIME _____

_____ State Patrol Fond du Lac, or
East Central Area EOC (if activated)
CONTACT _____ TIME _____

_____ Kewaunee County Sheriff, or
Kewaunee County EOC (if activated)
CONTACT _____ TIME _____

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-9

TITLE: Notification of Site Emergency

DATE: MAR 10 1983

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INITIALS

_____ Manitowoc County Sheriff, or
_____ Manitowoc County EOC (if activated)

CONTACT _____ TIME _____

_____ U.S. Coast Guard Day
Night

CONTACT _____ TIME _____

The following message should be given:

This is (title) at the Kewaunee Nuclear Power Plant. Conditions have improved and we have de-escalated the Site Emergency to an (Alert/Unusual Event) at (time) on (day).

To repeat: The Site Emergency has been de-escalated to an (Alert/Unusual Event) at (time) on (day). Relay this information to Emergency Government immediately.

- C. Notify the NRC of the Site Emergency de-escalation to an (Alert/Unusual Event) with an update of plant conditions.
- D. Continue emergency plant procedures with (EP-AD-8, Alert or EP-AD-7, Unusual Event) procedures, beginning with Section 4.2.

4.3 Site Emergency Close Out

- A. Notify the key emergency directors of the emergency close-out.

INITIALS

TIME

_____ Event Operations Director _____
_____ Radiological Protection Director _____
_____ Technical Support Center Director _____
_____ Support Activities Director _____
_____ Security Director _____
_____ Emergency Response Manager _____

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-9

TITLE: Notification of Site Emergency

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B. Notify the support agencies of the emergency close-out.

NOTE: This becomes the responsibility of the EOF staff after EOF activation.

Wisconsin Emergency Operations Center (EOC)

CONTACT _____ TIME _____

State Patrol Fond du Lac, or
East Central Area EOC (if activated)

CONTACT _____ TIME _____

Kewaunee County Sheriff, or
Kewaunee County EOC (if activated)

CONTACT _____ TIME _____

Manitowoc County Sheriff, or
Manitowoc County EOC (if activated)

CONTACT _____ TIME _____

U.S. Coast Guard

Day
Night

CONTACT _____ TIME _____

The following message should be given:

This is (title) at the Kewaunee Nuclear Power Plant. We have closed out the Site Emergency at (time) on (day). To repeat: The Site Emergency has been closed out at (time) on (day). Recover operations (are/are not) required.

This verbal close out will be followed with a written summary within 8 hours.

Relay this information to Emergency Government immediately.

C. Notify the NRC of the Site Emergency close-out with an update of plant conditions.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-10

REV. 1

TITLE: Notification of General Director

DATE: MAR 10 1983

PAGE 1 of 9

REVIEWED BY

[Handwritten signatures]

APPROVED BY

[Handwritten signature]

1.0 APPLICABILITY

1.1 This procedure is to be implemented upon declaration of a General Emergency or at the request of the Emergency Director.

2.0 Precautions

2.1 All pages should be sent on both transmitters to ensure complete area coverage - Kewaunee transmitter (plant ext. , Green Bay transmitter (plant ext. or Green Bay ext.

2.2 All Green Bay pager transmissions must have the pager number preceded by a 1.

3.0 References

3.1 EP-AD-2, Emergency Classification

3.2 EP-AD-15, Recovery Planning

3.3 EP-AD-17, Communications

4.0 Instructions

4.1 Initial notifications

INITIALS

— 4.1.1 If fire emergency, verify that notification required by ACD 14.2 has been made.

— 4.1.2 Notify one designate for each key emergency position. Designates are listed by call priority.

Home phone contact should be used initially if time permits.

The first designate for each plant director position can be contacted simultaneously by using pager code #

Each director notified by pager should confirm contact with a return telephone call to the Plant.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-10

TITLE: Notification of General Emergency

DATE: MAR 10 1983

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Emergency Director (ED)

Ext.

Home #

Individual
Pager

Group
Pager

DESIGNATE CONTACTED _____ TIME _____

Event Operations Director (EOD)

DESIGNATE CONTACTED _____ TIME _____

Radiological Protection Director (RPD)

DESIGNATE CONTACTED _____ TIME _____

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-10

TITLE: Notification of General Emergency

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Technical Support Center Director (TSCD)

<u>Home #</u>	<u>Individual Pager</u>	<u>Group Pager</u>
---------------	-----------------------------	------------------------

DESIGNATE CONTACTED _____ TIME _____

Support Activities Director (SAD)

DESIGNATE CONTACTED _____ TIME _____

Security Director

DESIGNATE CONTACTED _____ TIME _____

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
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TITLE: Notification of General Emergency

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4.1.3. Notify the Emergency Response Manager (ERM)

NOTE: If notified by pager, designate will confirm contact with a return telephone call to

Emergency Response Manager

Home #

Individual Group
Pager Pager

DESIGNATE CONTACTED _____ TIME _____

INITIALS

4.1.4 Notify the state and local governments using the NAWAS phone with the following statement:

Kewaunee Nuclear calling Warning Center 1, East Central Area, Kewaunee County, and Manitowoc County. Please acknowledge.

Wait until all four areas have acknowledged, then continue. If any area fails to acknowledge, ask Warning Center 1 to ring that area.

All areas please take the following message:

This is _____ (title) at the Kewaunee Nuclear Plant. An incident has occurred at our facility and we are declaring a General Emergency at _____ on _____ (Time) (Date)

There (has/has not) been a radiological release to the environment.

Off-site consequences are expected.

Please relay this information to Emergency Government immediately.

Please Verify this message by return telephone call to the appropriate number listed in your procedure.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-10

TITLE: Notification of General Emergency

DATE: MAR 10 1983

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Recommended protective actions are:

- a. Not required at this time.
- b. Take shelter in following areas:

(Location, sector and miles radius)

- c. Evacuate the following areas:

(Location, sector and miles radius)

- d. Other _____ in _____
(Recommended Action) (Location)
- _____ in _____
(Recommended Action) (Location)

Please Acknowledge receipt of this message.

Wait until all four areas have acknowledged.

- 4.1.5 Notify the United States Coast Guard using commercial telephone lines with the text of the previous message.

Day
Night

COAST GUARD CONTACT _____ TIME _____ INITIALS _____

- 4.1.6 Notify the NRC (Headquarters, Bethesda) using the Emergency Notification System (ENS) red phone and provide them with the necessary information from a completed Significant Event checklist.
Commercial phone back-up:

NRC CONTACT _____ TIME _____

- 4.1.7 Perform any additional notifications requested by the Emergency Director.

<u>INITIALS</u>	<u>Group Pager #</u>	<u>Time</u>
_____ Operations Personnel		_____
_____ Inplant Radiation/Chemistry/ Site Team		_____

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-10	
TITLE: Notification of General Emergency	
DATE: MAR 10 1983	PAGE 6 of 9

- _____ Off-site Team _____
- _____ Plant Electricians _____
- _____ I & C Personnel _____
- _____ Plant Mechanics _____
- _____ Fire Team _____
- _____ TSC Personnel _____

NOTE: If individual pager numbers are needed, reference EP-AD-17 Communications.

4.1.8 Transfer notification function to the Technical Support Center as soon as it has been fully activated and staffed.

TIME _____ INITIALS _____

4.1.9 Transfer the notification of the Coast Guard and State and local agencies to the EOF after it has been fully activated and staffed.

TIME _____ INITIALS _____

4.2 General Emergency Status Updates

4.2.1 Notify the State and Local Government Agencies as necessary of any change in status using the status update form, AD-17.1 (sample copy can be found in EP-AD-17). Contact should be made using commercial lines or dial select phones if the EOC's have been activated.

Wisconsin Emergency Operations Center

State Patrol - Fond du Lac or
East Central Area EOC (If activated)

Kewaunee County Sheriff, or
Kewaunee County EOC (If activated)

Manitowoc County Sheriff, or
Manitowoc County EOC (If activated)

4.2.2 Notify the United States Coast Guard as necessary of any change in status with the text of the previous message using commercial telephone lines:

Day:

4.2.3 As necessary, notify the NRC of any changes in status using information from an updated Significant Event Checklist.

4.3 Final Conditions (one of the following)

4.3.1 General Emergency De-escalation to Site Emergency, Alert, or Unusual Event

A. Notify the key emergency directors of the emergency class change.

INITIALS

TIME

_____	Event Operations Director	_____
_____	Radiological Protection Director	_____
_____	Technical Support Center Director	_____
_____	Support Activities Director	_____
_____	Security Director	_____
_____	Emergency Response Manager	_____

B. Notify the support agencies of the emergency class change.

NOTE: This becomes the responsibility of the EOF staff after EOF activation.

_____ Wisconsin Emergency Operations Center (EOC)

CONTACT _____ TIME _____

_____ State Patrol Fond du Lac, or
East Central Area EOC (if activated)

CONTACT _____ TIME _____

_____ Kewaunee County Sheriff, or
Kewaunee County EOC (if activated)

CONTACT _____ TIME _____

_____ Manitowoc County Sheriff, or
Manitowoc County EOC (if activated)

CONTACT _____ TIME _____

U.S. Coast Guard

Day
Night

CONTACT _____

TIME _____

The following message should be given:

This is (title) at the Kewaunee Nuclear Power Plant. Conditions have improved and we have de-escalated the General Emergency to (a Site Emergency/an Alert/an Unusual Event) at (time) on (day). To repeat: The General Emergency has been de-escalated to (a Site Emergency/an Alert/an Unusual Event) at (time) on (day). Relay this information to Emergency Government immediately.

- C. Notify the NRC of the General Emergency de-escalation with an update of plant conditions.
- D. Continue Emergency Plan Procedures with (EP-AD-9, Site Emergency/EP-AD-8, Alert/EP-AD-7, Unusual Event) procedures, beginning with Section 4.2.

4.3.2 General Emergency Close Out

- A. Notify the key emergency directors of the emergency close out.

INITIALS

- _____ Emergency Director
- _____ Event Operations Director
- _____ Radiological Protection Director
- _____ Technical Support Center Director
- _____ Support Activities Director
- _____ Emergency Response Manager

- B. Notify the state and local governments of the emergency close-out.

NOTE: This becomes the responsibility of the EOF staff after EOF activation.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-10

TITLE: Notification of General Emergency

DATE: MAR 10 1983

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_____ Wisconsin Emergency Operations Center (EOC)
CONTACT _____ TIME _____

_____ State Patrol Fond du Lac, or
East Central Area EOC (if activated)
CONTACT _____ TIME _____

_____ Kewaunee County Sheriff, or
Kewaunee County EOC (if activated)
CONTACT _____ TIME _____

_____ Manitowoc County Sheriff, or
Manitowoc County EOC (if activated)
CONTACT _____ TIME _____

_____ U.S. Coast Guard
CONTACT _____ Day _____ Night _____ TIME _____

The following message should be given:

This is (title) at the Kewaunee Nuclear Power Plant. We have closed out the General Emergency at (time) on (day). To repeat: The General Emergency has been closed out at (time) on (day). Recovery operations (are/are not) required.

This verbal close out will be followed with a written summary within 8 hours. Relay this information to Emergency Government immediately.

- C. Notify the NRC of the General Emergency close out with an update of plant conditions.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-11

REV. 0

TITLE: Emergency Radiation Controls

DATE: MAR 10 1983

PAGE 1 of 3

REVIEWED BY

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APPROVED BY

[Signature]

1.0 PURPOSE

The purpose of this procedure is to maintain exposure to emergency workers As Low As Reasonably Achievable (ALARA).

2.0 APPLICABILITY

This procedure will be implemented during an Alert, Site Emergency or General Emergency.

3.0 REFERENCES

- 3.1 Emergency Plan, Kewaunee Nuclear Power Plant
- 3.2 NUREG-0554 FEMA-REP-1, REV. 1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plant (Nov. 1980).
- 3.3 EPA-520/1-75-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents (June 1980)
- 3.4 Code of Federal Regulations 10 CFR Part 20.
- 3.5 Radiation Protection Manual and Health Physics Procedure Manual Kewaunee Nuclear Power Plant.
- 3.6 EP-RET-20 - Emergency Radiation Entry, Controls and Implementation.

4.0 RESPONSIBILITIES

- 4.1 All personnel involved with the Emergency are responsible for adhering to the requirements of this procedure.
- 4.2 The Radiological Protection Director (RPD) and Emergency Director (ED) are responsible for reviewing and approving all requests for exposures in excess of 10 CFR 20 limits.
- 4.3 The RPD has the overall responsibility for inplant personnel monitoring.
- 4.4 The In-plant Radiation Emergency Team (RET) is responsible for performing those activities necessary to implement the requirements of this procedure.

5.0 REQUIREMENTS

5.1 All Emergency Personnel

- 5.1.1 The requirements of the Health Physics Procedure Manual and the Radiation Protection Manual shall be applicable during all radiological emergencies, except as authorized by the RPD or ED.
- 5.1.2 Prior to entering a Radiation Hazard Area or highly contaminated area during an Emergency, an Emergency Radiation Work Permit (ERWP, Form AD-11.1) must be completed.
- 5.1.3 For emergency actions requiring immediate access to radiation hazard areas, the ERWP may be bypassed. Approval of the RPD or ED is required and the ERWP must be completed as soon after the entry as possible.
- 5.1.4 For any entry where an exposure greater than 10 CFR 20 limits is likely, an Authorization For Increased Exposure (Form AD-11.3) must be completed.

NOTE: For the purposes of emergency repair/operation, personnel will not be allowed to receive a dose exceeding 25 REM to the whole body.

5.2 Emergency Entry Team

- 5.2.1 An Emergency Entry Team shall be formed for entries into highly radioactive or contaminated areas for the purpose of search and rescue on life saving missions.
- 5.2.2 The RPD shall designate an Entry Team Coordinator.
- 5.2.3 Communications will be maintained via two-way radios between the Entry Team Coordinator and the In-Plant RET.
- 5.2.4 Only self-contained pressure demand respiratory equipment shall be used for worker protection during emergency entries.
- 5.2.5 Each team shall be briefed prior to entry. The briefings shall cover: purpose of the mission; exposure limits; work methods for reduced exposures; conditions expected to be encountered; abort instructions; stay times; personal dosimeter monitoring; respiratory protection equipment and anti-C clothing requirements.

5.3 Radiological Protection Director

- 5.3.1 Any exposure to radiation in excess of 10 CFR Part 20 limits shall be authorized by the RPD with the concurrence of the ED (Form AD-11.3). In the absence of the RPD, the ED may authorize an overexposure directly after concurring with the on-shift HP or an In-plant RET member.
- 5.3.2 The RPD will inform personnel of the availability of thyroid blocking agents (Potassium Iodide) for use in accordance with EP-AD-18.
- 5.3.3 ERWP's must be reviewed and approved by the RPD.

5.4 In-plant Radiation Emergency Team

- 5.4.1 All inplant radiological conditions will be reported to the Radiological Protection Director.
- 5.4.2 The RET will make radiological assessments of all inplant areas requiring access and occupation during an emergency.
- 5.4.3 The projected amount of time inplant emergency workers will be allowed to stay in a radiation and/or contaminated area shall be determined in accordance with Stay Time (Form AD-11.2) and shall include a review of:
- Projected route exposures
 - Measured dose rates and airborne concentrations
 - Personnel exposure history
 - Projected duration of task
 - Information on current plant conditions and the plant area under consideration
- 5.4.4 Continuous radiation monitoring coverage will be provided in occupied areas when the potential for increased radiation levels exist and the area is occupied.
- 5.4.5 Radiation surveys need not be performed in areas of extremely high radiation levels. Rather, surveys should be performed only if entry into these areas is required for other emergency actions.
- 5.4.6 Air sample surveys and radiological assessment surveys shall be completed depending on the nature and seriousness of the emergency.

- 5.4.7 For all entries into a Radiation Hazard area, exposures to airborne concentrations of radioactivity shall be limited by the following:
- a. Whenever practicable, total exposure of any individual during an emergency should be limited to 40 MPC-hours. MPC hours are calculated by multiplying the concentration in terms of the number of MPC's by the total time of exposure (in hours).
 - b. If emergency operations demand, total exposure of any individual shall be limited to 1,200 MPC-hours. This is roughly equivalent to the 3 Rem/quarter limit for external radiation exposure.
 - c. Limits for exposure to Xe-133 and other noble gases are based on beta plus gamma dose limits to the skin and whole body.
 - d. An integrated exposure of 10,000 MPC-hours for nuclides with short effective half-lives is roughly equivalent to an external, whole-body exposure of 25 Rem and should be received only with the approval of the Radiological Protection Director or Emergency Director. Similar exposure to nuclides with long effective half-lives are to be avoided and should be restricted to 1,200 MPC-hours as in b above.
 - e. Since the effects of external and internal exposure are additive, personnel should avoid exposures over 1,200 MPC-hours, even in the event of life-saving or rescue action, unless external radiation fields are minimal and unless effective half-lives are short.
 - f. Personnel who have been exposed to more than 10,000 MPC-hours shall be removed from further emergency duty, whole body counted, and referred to a physician for attention.
- 5.4.8 For all special entries the RET shall review with the team members the task to be performed including the following where applicable.
- a. Potential stress conditions and problems
 - b. Work methods
 - c. Number of personnel required
 - d. Allowable exposure limits
 - e. Tools, equipment, and parts
 - f. Lighting
 - g. Communications requirements

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-11

TITLE: Emergency Radiation Controls

DATE: MAR 10 1983

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- 5.4.9 A Radiation Emergency Team Member shall accompany any personnel entering any radiation or contaminated area where radiological conditions are unknown.
- 5.4.10 Any individual who has exceeded 10 CFR 20 limits shall be temporarily removed from radiation exposure work. His exposure record shall be reviewed by the RPD and ED prior to further radiation work.

WISCONSIN PUBLIC SERVICE CORPORATION
KEWAUNEE NUCLEAR POWER PLANT

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Form AD-11.1

EMERGENCY
RADIATION WORK PERMIT

Number: E- Associated Work Number _____ Date Prepared: _____

REGULAR EXTENDED EFFECTIVE: _____ through _____

TO BE COMPLETED BY WORK SUPERVISOR: (Attach Work Request if available)

Job Location and Description: _____

ASSIGNED WORKERS	EXP. LIMIT	TOTAL REC'D	ASSIGNED WORKERS	EXP. LIMIT	TOTAL REC'D

TO BE COMPLETED BY HEALTH PHYSICS:

General Area Radiation: _____ Instrument Used: _____

Contamination Levels: _____ **HP Coverage Req. YES/NO _____

Airborne Activity: _____ Surveyed By: _____

INDIVIDUAL REQUIREMENTS: (Circle Required Items)

- Dosimetry: TLD Badge Dosimeter Wrist Badge Finger Badge
- Protective Clothing: Labcoat Skullcap/Hood Liners Rubber Gloves
- Coveralls Plastic Suit Plastic Hood Rubber Overshoes
- Plastic Boots

Other: _____

SPECIAL INSTRUCTIONS: _____

APPROVAL

TERMINATION

Work Supervisor: _____ By: _____

RADIOLOGICAL PROTECTION DIRECTOR _____ Date/Time: _____

EMERGENCY DIRECTOR _____ Reason: _____

ADDITIONAL: OverExposure Authorization
Predicted Exposure _____

Rad Protection Director _____

Emergency Director _____

An Airborne Exposure Analysis must be completed for each assigned work following exit from an Airborne Contaminated area (Form AD-11.2)

Time: _____
 Date: _____
 Location: _____

Airborne
 Exposure
 Analysis

Emergency
 Radiation
 Work Permit
 (Page 2 of 2)

EP-AD-11 **
 3-10-83
 Page 7 of 8
 Form AD-11.2

PE	t _{1/2}	OBSERVED CONCENTRATION	OCCUPATIONAL MPC	RATIO CONC./MPC	REG. NO.	BODY BURDEN 30 MINUTE EXPOSURE
R 41	1.83h		2 E-6		1	
Kr-85	10.7 y		1 E-5		2	
Kr-85m	4.4 h		6 E-6		3	
Kr-87	76.0 m		1 E-6		4	
Kr-88	2.8 h		1 E-6		5	
Xe-133	5.2 d		1 E-5		6	
Xe-133m	2.26d		1 E-5		7	
Xe-135	9.14h		4 E-6		8	
Xe-135m	15.6 m		1 E-6		9	
Xe-138	17.5 m		1 E-6		10	

PARTICULATES: Less than 8 day t_{1/2}

Na-24	14.9 n		1 E-6		11	
Mn-56	2.57n		8 E-7		12	
Rb-88	17.8 m		1 E-6		13	
Sr-92	2.71n		4 E-7		14	
Mo-99	66.7 n		7 E-7		15	
Te-132	77.7 n		2 E-7		16	
Cs-138	32.2 m		1 E-6		17	
La-140	40.2 h		2 E-7		18	

PARTICULATES: Greater than 8 day t_{1/2}

Cr-51	27.3 d		1 E-5		19	
Mn-54	303.8 d		4 E-7		20	
Co-58	71.3 d		8 E-7		21	
Fe-59	45.6 d		1 E-7		22	
Co-60	5.8 y		3 E-7		23	
Zn-65	245.0 d		1 E-7		24	
Nb-95	35.0 d		5 E-7		25	
Zr-95	65.5 d		1 E-7		26	
Cs-134	2.0 y		4 E-8		27	
Cs-136	13.7 d		4 E-78		28	
Cs-137	30.0 y		6 E-8		29	
Ba-140	12.8 d		1 E-7		30	
Ce-144	284.0 d		1 E-8		31	

HALOGENS

F-18	109.7 m		5 E-6		32	
Br-84	31.8 m		1 E-6		33	
I-131	8.05d		9 E-9		34	
I-132	2.28h		2 E-7		35	
I-133	20.3 h		3 E-8		36	
I-134	52.0 m		5 E-7		37	
I-135	6.68h		1 E-7		38	
TRITIUM	12.26y		2 E-3		39	
SR-90					40	

STAY TIME CALCULATION: (based on a 40hr week)

TOTAL: _____

WORKER NAME _____
 TIME IN _____ TIME OUT _____

40 hrs =

TOTAL

_____ (hrs/week)

STAY TIME x 60 =

_____ (min./week)

STAY TIME

MPC-HOUR CALCULATION:

(TOTAL) (EXPOSURE TIME) (HR) () () (HR)
 (IN MINUTES) (60 MIN) (60 MIN) = MPC-HOURS
 RESPIRATOR PROTECTION FACTOR () RECEIVED

FORM AD-11.3

WISCONSIN PUBLIC SERVICE CORPORATION

Kewaunee Nuclear Power Plant

AUTHORIZATION FOR EMERGENCY RADIATION EXPOSURE

DATE: _____

Name: _____ Social Security No.: _____

Employer: _____ Date of Birth: _____

Reason for Emergency Exposure: _____

Requested by: _____ Title: _____

Present Exposure Limit is	_____	REM
Increased Exposure Limit Will Be	_____	REM
Total Lifetime Exposure at Start of this Quarter was	_____	REM
Accumulated Exposure for this Quarter is	_____	REM
Total Lifetime Exposure to date is	_____	REM
5(N-18) Limit is	_____	REM
Unused Lifetime Exposure Remaining is	_____	REM

Form NRC-4 up-to-date? Yes _____ No _____

NOTE: Environmental Protection Agency guidance states that emergency worker exposures should be limited to 25 REM for emergency repair/operation. This limit may be exceeded for life saving operations.

"I agree that I have not previously received a once in a lifetime dose of 25 REM and that my radiation exposure limit can be increased."

Signed: _____

Approved by Radiological Protection Director: _____

Emergency Director: _____

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-12

TITLE: Personnel Assembly and
Accountability

DATE: MAR 10 1983

PAGE 1 of 3

REVIEWED BY

[Signature]

APPROVED BY

[Signature]

1.0 APPLICABILITY

This procedure shall be implemented immediately during a Site Emergency or General Emergency and may be implemented during an Unusual event or an Alert at the discretion of the Emergency Director.

2.0 PRECAUTIONS

- 2.1 Assembly Area Coordinators (AAC) and alternates for each assembly area are designated on Table AD-12.
- 2.2 Personnel must make the AAC aware of their departure and arrival when changing locations.
- 2.3 AAC's must ensure that hazardous areas are identified and warn personnel of these locations for the determination of the safest routes between Emergency Assembly Areas.
- 2.4 Personnel inside the controlled area should not assemble in their emergency duty location, but report to the controlled area assembly area (Radiation Protection Office) in accordance with Table AD-12.
- 2.5 Only the following personnel may authorize support personnel without Kewaunee I.D. cards access to the site during a plant 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) |
- 2.6 If a designated AAC or alternate is not present at an assembly area, a senior plant staff member will assume the responsibility.
- 2.7 Personnel outside the controlled area should assemble in their emergency duty location if possible and timely.

NO. EP-AD-12	
TITLE: Personnel Assembly and Accountability	
DATE: MAR 10 1983	PAGE 2 of

3.0 REFERENCES

- 3.1 EP-SEC-3, Personnel Accountability (Initial and Maintaining)

4.0 INSTRUCTIONS

- 4.1 All personnel shall assemble at the locations specified in Table AD-12, or their emergency duty locations, upon Gaitronics announcement of Assembly/Accountability.
- 4.2 The AAC shall record the badge ID numbers of each person as they identify themselves. Daily check-in sheets should be available in each area to assist in recording the information.
- 4.3 AAC shall conduct a roll call to verify an accurate muster list.
- 4.4 AAC shall report to the Security Director, the badge ID numbers of personnel at their assigned area location.
- 4.5 After initial assembly and accountability, Emergency Response Organization Personnel may proceed to their appropriate emergency duty locations in the following manner:
 - 4.6.1 Notify the present AAC of your ID no. and destination.
 - 4.6.2 The AAC informs the Security Director at the individual's destination.
 - 4.6.3 Obtain information on hazardous areas and best route to be traveled from the present AAC.
 - 4.6.4 Follow predetermined route to new location quickly.
 - 4.6.5 Report in immediately to new AAC.
 - 4.6.6 The new AAC shall report arrival of all personnel as they report.
- 4.7 Periodic accountability of personnel shall be performed by the Security Director to ensure continuous accountability of personnel.
- 4.8 If the entire group of assigned personnel are to move to a new location, the AAC shall direct personnel through 4.6.1 through 4.6.6, to ensure continuous accountability of personnel.
- 4.9 The Security Director shall ensure that current copies of daily check-in sheets in each primary assembly area are in a conspicuous location.

TABLE AD-12

EMERGENCY ASSEMBLY AREAS

GROUP	Primary Assembly Location and Telephone Numbers	Alternate Assembly Locations and Telephone Numbers	Coordinator
Operations Shift Crew	Control Room Phone	Radiation Protection Office Phone	Shift Supervisor or Event Oper. Director
Fire Brigade	Shift Supervisor's Office Phone	Admin. Bldg. Lobby Phone	Fire Brigade Leader
Fire Team	Admin. Bldg. Lobby Phone	Security Bldg. Phone	Fire Team Leader
In-plant, Site, Chemistry, Radiation Emergency Teams, Controlled Area Personnel	Radiation Protection Office Phone	Radiological Analysis Facility Phone	Radiological Protection Dire
Containment Personnel	Personnel Airlock Gai-tronics	Emergency Airlock Gai-tronics	Senior NP Technologist or Staff Member
Technical Support Center Staff	Technical Support Center Phone		Technical Support Center Director
Maintenance personnel, visitors, contractors, and personnel with no immediate emergency response duty	Operational Support Facility (Admin. Bldg. Ground Level) Phone		Support Activities Director
Training personnel	Training Building-General Meeting Room Phone	Site Access Facility Phone	Training Supervisor
Security Personnel (except CAS officers)	Security Bldg. Phone	Site Access Facility Phone	Security Director or Shift Captain

WISCONSIN PUBLIC SERVICE CORPORATION

Kewaunee Nuclear Power Plant

EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-13

TITLE: Personnel Evacuation

DATE: 3-3-83

PAGE 1 of 2

REVIEWED BY *[Signature]*

APPROVED BY *[Signature]*

1.0 APPLICABILITY

This procedure is implemented whenever the evacuation of non essential personnel becomes desirable or evacuation of emergency personnel becomes necessary. The desirability or necessity of an evacuation will be determined by the Emergency Director (ED) and Radiological Protection Director (RPD).

2.0 PRECAUTIONS

2.1 Ensure the radiological conditions of the evacuation routes are assessed by the Radiological Protection Director or the onshift HP prior to evacuation of personnel.

3.0 REFERENCES

- 3.1 Kewaunee Nuclear Power Plant Emergency Plan.
- 3.2 EP-AD-12, Personnel Assembly and Accountability.
- 3.3 EP-SEC-3, Personnel Accountability (Initial & Maintaining).
- 3.4 EP-AD-14, Search and Rescue

4.0 INSTRUCTIONS

4.1 Emergency Director

- 4.1.1 Notify the Security Director and Radiological Protection Director that site evacuation is imminent.
- 4.1.2 Insure that all personnel have been assembled and accounted for in accordance with EP-AD-12. Personnel to be evacuated must be assembled in the administrative personnel assembly area.
- 4.1.3 Direct the Radiological Protection Director to determine a safe route from the evacuation assembly area to the Site Access Facility (SAF) or site access point.

- 4.1.4 Dispatch necessary emergency teams to where they are needed.
- 4.1.5 Inform the Security Director of the evacuation route and direct him to initiate the evacuation.

4.2 Security Director

- 4.2.1 With information from the Radiological Protection Director, the Security Director will determine whether personal vehicles are inaccessible or too contaminated to leave the site. If use of personal vehicles is not possible the Security Director will insure that transportation arrangements are made for the evacuation, if necessary.
- 4.2.2 The Security Director shall direct the evacuation of personnel to the Site Access Facility or site access point using the route determined by the Radiological Protection Director. (See Figure AD-13 for the primary route and an alternate route).

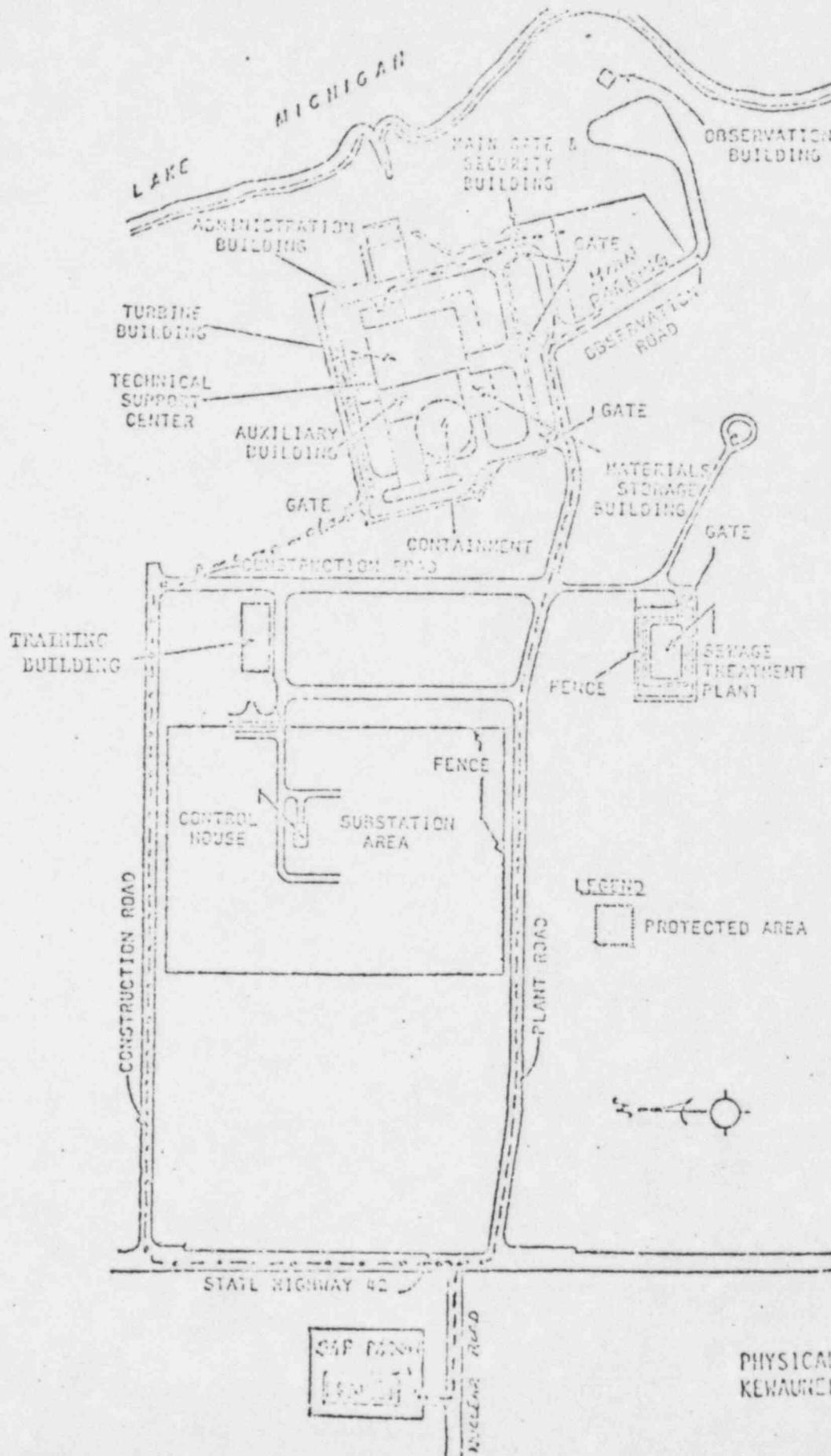
4.3 Evacuating Personnel

- 4.3.1 Exit the plant in an orderly fashion by the directed route.
- 4.3.2 Proceed directly to the designated assembly area.
- 4.3.3 Do not leave the designated assembly area until you have been logged in, monitored for contamination, and released.

5.0 SUPPLEMENTAL ACTIONS

5.1 Emergency Director

- 5.1.1 Notify the Site Access Facility and the EOF of the evacuation and its nature.
- 5.1.2 Direct the Radiological Protection Director to have the evacuees monitored for contamination.
- 5.1.3 Verify that the Security Director and Security Force have logged all evacuees prior to releasing them.
- 5.1.4 If evacuee assembly counts indicate missing personnel, initiate EP-AD-14.



PHYSICAL LAYOUT OF
 KEWAUNEE NUCLEAR POWER PLANT

Kewaunee Nuclear Power Plant

TITLE: Search and Rescue

EMERGENCY PLAN IMPLEMENTING PROCEDURE

DATE: MAR 10 1983

PAGE 1 of 7

REVIEWED BY

R. Brown / M. L. Muehle

APPROVED BY

AM

1.0 APPLICABILITY

Upon determination that a person or persons are missing, trapped, or disabled, efficient search and rescue operations will be performed by appropriately trained team members.

2.0 PRECAUTIONS

- 2.1 Personnel involved in search and rescue missions that may involve high radiation areas should keep in mind the concepts of time, distance and shielding to minimize radiation exposure.
- 2.2 The buddy system will be in effect and an individual will not be allowed to travel into a potentially dangerous or high radiation area unless he is within sight and/or sound of his partner.
- 2.3 Proper radiological controls must be adhered to during search and rescue operations.
- 2.4 All Search and Rescue Team members subjected to radiation doses greater than 10 CFR Part 20 limits (3 Rem, whole body; 18.75 Rem, Extremities; 7.5 Rem, Skin of Whole Body) will participate on a voluntary basis.
- 2.5 For search purposes, team members will not receive a dose exceeding 25 Rem to the whole body.
- 2.6 For purpose of life-saving operations, volunteers will not exceed a dose of 75 Rem to the whole body.
- 2.7 Any radiation exposure in excess of 10 CFR 20 limits shall be authorized by the Radiological Protection Director (RPD) with the concurrence of the Emergency Director (ED).
- 2.8 All completed radiation surveys of areas to be traveled by search and rescue personnel shall be made available to the teams by the RPD.
- 2.9 Shielding Maps should be reviewed for the determination of an access pathway.
- 2.10 The Radiological Protection Director shall brief all search and rescue team members of the hazards of radiation doses in excess of 25 Rem whole body.

2.11 Each team will have a portable radio for communications capability with the team coordinator.

2.12 Rescue of a victim takes precedence over fire fighting, unless the fire must be suppressed to save lives or effect rescue.

3.0 REFERENCES

3.1 Kewaunee Nuclear Power Plant Emergency Plan

3.2 Code of Federal Regulations, 10 CFR Part 20

3.3 Radiation Protection Manual and Health Physics Procedures Manual

4.0 INSTRUCTIONS

4.1 Security Director

The Security Director is responsible for all search and rescue operations.

4.1.1 Report to the Operational Support Facility (OSF) to coordinate and manage the search effort when informed of a missing person(s).

4.1.2 The following items should be used to determine the most likely location of the missing person:

- a. Plant security computer
- b. Immediate supervisor for expected work location
- c. Plant key checkout log
- d. Controlled Area Entry Log

4.1.3 Assign Search and Rescue Team Members and a Team Coordinator, in concurrence with the ED. Assign relief members if necessary.

4.1.4 Obtain the search packages from their normal stowage location in the Administration Building Conference Room.

4.1.5 Assign a search package to a Search and Rescue Team describing the area to be searched. Search packages are listed on TABLE AD-14.

4.1.6 Assign a search team containing at least one member familiar with the area to be searched.

4.1.7 Contact the RPD and obtain an Inplant Radiation Emergency Team (RET) member to accompany Search and Rescue Teams in controlled areas.

4.1.8 Recall the Search and Rescue Teams when search and rescue operations are completed or no longer necessary.

4.1.9 Coordinate all search and rescue teams so that duplication of effort is avoided, unnecessary radiation exposure does not occur and time is utilized effectively.

4.2 Radiological Protection Director (RPD)

The RPD shall support all search and rescue operations in the Controlled Areas of the plant.

4.2.1 For search and rescue missions, in which exposure to radiation/contamination is expected, ensure that proper instrumentation, respiratory protection, clothing and dosimetry are being used.

4.2.2 Determine each team member's allowable dose and calculate a stay time associated with each dose. Review the calculations with the team coordinator.

4.2.3 Review the Emergency Radiation Exposure Record completed by the team coordinator.

4.2.4 Assign an Inplant RET member to accompany any Search and Rescue Teams in controlled areas.

4.2.5 Remove from further emergency duty those team members who have not volunteered to be exposed to greater than 10 CFR 20 limits.

4.2.6 If the whole body dose of a volunteer team member exceeds 25 Rem or his dose is uncertain or suspected of exceeding 25 Rem, he should be referred for appropriate medical care.

4.2.7 Obtain the approval of the Emergency Director for rescue operations that may or will require exposure of team member(s) in excess of 10 CFR 20 limits.

4.3 Team Coordinator

4.3.1 Form Search and Rescue Teams of 3 members each; ensure that each team has a member familiar with the area to be searched.

4.3.2 Obtain search package from the Security Director.

4.3.3 Equip one team member trained in first aid with a first aid kit.

- 4.3.4 In controlled areas, review with the RPD the protective clothing and respiratory protection equipment necessary for team actions.
- 4.3.5 Brief the rescue team on the following where applicable:
 - a. Purpose of the mission
 - b. Dosimetry
 - c. Protective clothing and respiratory protection
 - d. Survey instruments
 - e. Communication equipment
 - f. First Aid equipment
 - g. Planned route
 - h. Expected conditions
 - i. Dose and stay time
 - j. Abort instructions
 - k. Identification of each missing individual,
 - l. Last known location of each individual,
 - m. The work each individual was doing,
 - n. Any significant details of the plant status that might affect the search, and
 - o. Special instructions.
- 4.3.6 During the team effort, monitor the radio and record radiation levels and compare the readings to those expected.
- 4.3.7 Maintain a log of the time and estimate the doses they are receiving. Also log all significant events including location and time of occurrence.
- 4.3.8 Attempt to minimize team member's whole body doses while they are conducting search and rescue operations.
- 4.3.9 Inform the Security Director of all significant actions being taken by team members. Inform the Security Director immediately upon locating any personnel.
- 4.3.10 As each area is completed, notify the Security Director of the findings by Gai-tronics or radio.
- 4.3.11 Return to the OSF at the completion of a search package.
- 4.3.12 In the event that physical or radiological conditions are encountered that are unexpected or that change and hinder the rescue, obtain further instructions or opt to abort the mission.

4.4 Search and Rescue Team Members

- 4.4.1 Report to the OSF for duty and briefing.
- 4.4.2 Obtain the appropriate dosimetry, protective clothing, first aid equipment and respiratory protection equipment deemed necessary by the RPD.
- 4.4.3 Check all equipment for damage and perform operational checks if appropriate.
- 4.4.4 Ensure direction has been obtained and are understood prior to starting search and rescue operation.
- 4.4.5 Proceed to the search area assigned and conduct search.
- 4.4.6 Conduct and record radiation field measurements in-transit and maintain continuous radio contact.
- 4.4.7 Use the buddy system throughout the rescue operation.
- 4.4.8 Provide first aid as necessary and transport or escort the individual(s) to a safe location as soon as possible.

TABLE AD-14
PERSONNEL SEARCH AREAS

Package No.	Controlled Areas	HP Dwg. No.
1	657' E1 - Fan Floor & RWST Annulus	A-1, A-2
2	642' E1 - SBV & Hot Labs	B-1, B-2
3	649' & 633' E1 - SFP, Main Airlock & Monitor Tank Area	C-1, C-2
4	622' & 606' E1 - "A" Main Steam, Feedwater, SFP Hx & Waste Evaporator	D-2, E-1
5	606' & 586' E1 Shipping Dock & Waste Disposal Area	E-1, F-1
6	606' E1 - VCT, Filter, & CCHx Areas	E-1, E-3
7	586' E1 - B.A. Evap., Chg. Pumps, & HRSR Areas	F-1, F-4
8	586' E1 - SI & ICS Pumps, Bus 1-1 & SGBT Areas	F-3, F-4
9	642' & 626' E1 - C/R Vent, Record Storage, & I&C Shop	B-1
10	657' & 642' & 626' E1 - Turb. Bldg. Fans, NAOII, & Demins.	A-2, B-2, C-3
Package No.	Clean Areas	HP Dwg. No.
11	626' E1 - CRDM, Cold Chem, & Cable Spreading Areas	C-3, D-1
12	626' EL Control Room, Relay Room, & Turb. Op. Floor	C-4, 5, 6, 7, E-3
13	626' & 606' E1 - Admin. Bldg.	C-8, E-6
14	606' E1 - Locker rooms, HP Area, Lavatory & Weld Shop	E-3
15	606' EL - Machine Shop, SGBT HX, & CST	E-2
16	606' E1 - Turb. Mezz., & Battery Rooms	E-4, 5, 6

TABLE AD-14

PERSONNEL SEARCH AREAS

Package No.	Controlled Areas	HP Dwg. No.
17	606' & 586' E1 - Tech. Support Bldg.	E-7, F-10
18	586' E1 - WNT, Acid Tank & Catacombs	F-2, F-3
19	586' E1 - Turbine Bldg. Basement	F-5, 6, 7
20	586' E1 - Safeguard Alley & Screenhouse	F-5, 8, 9
21	Gatehouse, Vehicle Storage, & Protected Area	G-1, G-2
22	Material Storage Bldg.	G-3
23	* Shield Bldg. & Containment	R-1, 2, 3, 4
24	* Building Roofs	H-1, 2, 3, 4, 5

* These areas have alarmed access or require a key checkout prior to entry and should only be searched after ascertaining that the individuals have entered these areas.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-15 REV. A

TITLE: Recovery Planning

DATE: MAR 10 1983

PAGE 1 of 2

REVIEWED BY

RB / *ML*

APPROVED BY

MH

1.0 PURPOSE

This procedure provides guidance for implementing a recovery effort following an emergency. For an Unusual Event or Alert only minor recovery actions should be required. However for the emergencies with more severe consequences (Site Emergency or General Emergency), complex recovery actions may be required.

2.0 APPLICABILITY

- 2.1 The Emergency Director will decide when an on-site recovery effort is required.
- 2.2 The following guidelines should be used to determine when the emergency is under control and a recovery effort may be implemented:
 - a. Radiation levels are steady or decreasing with time.
 - b. Any release of radioactive materials to the environment has ceased or is controlled within technical specification limits.
 - c. Fire, flooding, or similar emergency conditions no longer constitute a hazard to the plant or plant personnel.
 - d. Measures have been successfully taken to correct or compensate for malfunctioning equipment.

3.0 REFERENCES

- 3.1 Emergency Response Plan - Section 9.

4.0 RESPONSIBILITIES

- 4.1 The Manager - Nuclear Power is responsible for:
 - 4.1.1 Directing overall recovery operations.
 - 4.1.2 Establishing a recovery organization following the framework of the Emergency Response Organization, making any modifications necessary.
 - 4.1.3 Ensuring that all recovery operations are pre-planned and those affecting nuclear safety are performed following written procedures.
 - 4.1.4 Ensuring that measures are being taken to protect personnel from unnecessary radiation exposures or other hazards.

4.1.5 Coordinating onsite recovery with Federal, State, and local support efforts.

4.1.6 Terminating recovery operations.

4.2 Plant Supervisors will maintain their areas of emergency responsibility unless directed differently by the Manager - Nuclear Power.

4.3 The Plant Operations Review Committee has the responsibility for recommending termination of recovery operations.

5.0 REQUIREMENTS

5.1 The Emergency Director will ensure that plant emergency response organization and support personnel are informed that recovery operations are underway.

5.2 The Manager - Nuclear Power will assemble the recovery organization to perform an evaluation of the causes and consequences of the emergency. Recovery actions to be taken:

- a. Establish a recovery plan and schedule.
- b. Delegate personnel for problem investigation.
- c. Review protective measures taken and relax those that may no longer be required.
- d. Request assistance and support from system planning and engineering, power plant design and construction, or fuel and fossil operations as needed.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO.	EP-AD-16	REV. A
TITLE: Occupational Injuries or Vehicle Accidents During Emergencies		
DATE	MAR 10 1983	PAGE 1 of 5

REVIEWED BY

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APPROVED BY

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1.0 APPLICABILITY

1.1 This procedure applies to all injuries to personnel at the Kewaunee Nuclear Plant during a declared emergency and supplements Section 10.60 of the WPS Personnel Manual.

2.0 DEFINITIONS

2.1 Occupational Injury - an on the job personnel injury

2.2 Minor Injury - a personnel injury requiring first aid attention only (minor cuts, abrasions, punctures, etc.)

2.3 Medical Attention Injury - a personnel injury requiring medical attention by a licensed physician (cuts requiring sutures, foreign particles in eye, possible fractures, etc.)

2.4 Major Injury - a personnel injury where hospitalization is probably required.

2.5 First Aid Room - a plant area where a stock of first aid supplies and emergency equipment is maintained.

2.6 Emergency Vehicle - a plant vehicle containing emergency equipment that is used to transport non-critically injured personnel. (See Section 5.5.)

3.0 REFERENCES

3.1 WPS Personnel Manual, Section 10.60

3.2 WPS Safety Rule Book, Section 2.0

3.3 EP-RET-2E Handling of Injured Personnel

4.0 RESPONSIBILITIES

4.1 Each individual working at the Kewaunee Plant is responsible for immediately reporting any occupational injury to the Emergency Director and obtaining first aid treatment as needed.

- 4.2 The Inplant Radiation Emergency Team (RET) will normally provide assistance in accordance with the WPS Safety Rule Book, Section 2, and EP-RET-2E.
- 4.3 The Security Force will provide drivers for the emergency vehicle or transport vehicle.
- 4.4 The Emergency Director (E.D.) is responsible for contacting support agencies.

Kewaunee County Sheriff

Two Rivers Hospital

Kewaunee Memorial Hospital

Manitowoc Eye Clinic

5.0 REQUIREMENTS

5.1 Minor Injury - Clean Area

- 5.1.1 The injured employee should report to the First Aid Room for treatment.
- 5.1.2 An Inplant RET member should record any first aid administered and any pertinent information in the First Aid Room Log. He should ensure that the Emergency Director has been notified.
- 5.1.3 The injured employee and his supervisor should complete Report of Minor Injury (Form 115-12) in accordance with Section 10.60 of the Personnel Manual as soon as possible and forward it to the Emergency Director.

5.2 Minor Injury - Controlled Area

- 5.2.1 The injured employee should report to the First Aid Room for treatment. The wound will be checked for possible radioactive contamination by the Inplant RET.
- 5.2.2 An Inplant RET member should record any first aid administered and any pertinent information in the First Aid Room Log. He should ensure that the Emergency Director has been notified.
- 5.2.3 If the wound is of such a nature that contamination could be introduced, the person will be restricted from further work in the Controlled Area until the wound has sealed.
- 5.2.4 The injured employee and his supervisor should complete Report of Minor Injury Form 115-12 in accordance with Section 10.60 of the Personnel Manual as soon as possible and forward it to the Emergency Director.

5.3 Medical Attention Injury

- 5.3.1 For injuries requiring the attention of a licensed physician, the Emergency Director will make initial contact to the hospital or clinic and provide as much information as he has available.
- 5.3.2 The Emergency Director will arrange transportation for the injured person. (Section 5.5)
- 5.3.3 An Inplant RET member should complete the Medical Attention Injury Form and provide the hospital or clinic and the Emergency Director with an update on the injured person's condition. He should also record any first aid administered in the First Aid Room Log.
- 5.3.4 A copy of the Medical Attention Injury Form and Order on Doctor Form (WPS employee only-Form 303-12) should accompany the injured person, and the originals should be given to the Emergency Director.
- 5.3.5 As soon as possible, the injured person's supervisor should complete the forms required by Section 10.60 of the Personnel Manual and if a lost time injury could result, notify the WPS Safety Department.

5.4 Major Injury

- 5.4.1 Any person observing or discovering a possible Major Injury should contact the Emergency Director immediately. Do not attempt to move the victim unless located in a high radiation or airborne activity area or imminent danger of further injury exists.
- 5.4.2 Major injuries will be handled in a similar manner as Medical Attention Injuries. See 5.3 above.
- 5.4.3 If it appears the injured will be hospitalized for a period greater than 48 hours, the injury should be reported in accordance with 10 CFR 50.72.

NOTE: Transportation of a contaminated, seriously injured individual from site to an offsite hospital is an Unusual Event.

5.5 Use of the Emergency Vehicle or Local Ambulance Service

- 5.5.1 The Emergency Vehicle is to be used for the transport of non-critically injured personnel. The Emergency Director should direct the Shift Captain to have the Emergency Vehicle driven to the proper plant entrance.

NOTE: At the Emergency Director's discretion any company vehicle may be used for personnel transport.

- 5.5.2 All critically-injured personnel shall be transported by a local ambulance company. An ambulance should be requested through the Kewaunee County Sheriff. He should be given and told to relay the following information to the ambulance company:

- a. Nature of injury,
- b. Condition of patient, and
- c. Extent of radioactive contamination, if any.
- d. Access point to the site.

NOTE: The ambulance will be allowed entry into the Protected Area with security requirements waived.

- 5.5.3 If the injured person is not contaminated, he/she may be taken to the Two Rivers Community Hospital, the Kewaunee Memorial Hospital or the Manitowoc Eye Clinic with consideration given to:

- a. The type of injury
- b. The injured person's preferences, or
- c. The location of the injured person's home.

A plant staff member shall accompany the injured person to the medical facility.

- 5.5.4 If the injury involves radioactive contamination, the injured person must be taken to the Two Rivers Community Hospital, and be accompanied by an Inplant RET member.

5.6 Vehicle Accidents with Injuries - No Contamination Involved

- 5.6.1 The persons involved in the accident will contact the plant by mobile radio and inform the Radiological Protection Director (RPD) or Environmental Protection Director (EPD) of the circumstances and extent of injury.
- 5.6.2 The RPD or EPD will inform their Supervisors (E.D. or E.R.M.) of the situation.
- 5.6.3 The ED or ERM will contact the applicable County Sheriff's office giving the location of the accident, number of persons involved, possible extent of injury, and advise the Sheriff's office on the radioactivity involved, if any.
- 5.6.4 The Sheriff's office will utilize their normal procedures for handling vehicle accidents.
- 5.6.5 As soon as feasible, the persons involved will complete the required accident report forms (see Personnel Manual, Section 10.40 or 10.45).

5.7 WPS Vehicle Accident with Injuries - Contamination Involved

- 5.7.1 The persons involved in the accident will contact the plant by mobile radio and inform the RPD or EPD of the circumstances and extent of injury.
- 5.7.2 If monitoring equipment is available, the radiation levels and contamination levels at the accident site should be measured and transmitted to the RPD or EPD.
- 5.7.3 The RPD or EPD will inform their supervisors (ED or ERM) of the situation and radiation levels.
- 5.7.4 The ED or ERM will contact the applicable County Sheriff's office and inform him of the situation, and the radiation levels at the accident site.
- 5.7.5 The RPD will dispatch a member of the Site Team in the plant emergency vehicle to the accident location, and an Inplant Radiation Team Member to the Two Rivers Hospital.
- 5.7.6 The member of the Site Team will maintain contamination control at the accident location.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-17

REV. 11

TITLE: Communications

DATE: MAR 10 1983

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APPROVED BY

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1.0 APPLICABILITY

1.1 This procedure describes the communication systems to be used during a plant emergency to:

- a. Notify onsite personnel
- b. Notify emergency response organization personnel
- c. Notify Federal, State and local authorities
- d. Notify private support agencies

2.0 PRECAUTIONS

- 2.1 All incoming emergency communications should be transferred from the Control Room to the Technical Support Center (TSC) or plant switchboard as soon as possible after emergency declaration.
- 2.2 All messages sent and received shall be documented.
- 2.3 Messages should be repeated to ensure understanding, especially those containing numerical information.
- 2.4 Precede Green Bay pager transmissions with a "1".

3.0 REFERENCES

- 3.1 System Description #44 - Communications.
- 3.2 XK-238 Gai-tronics
- 3.3 WPS P.O. 12589 - Motorola Radio Paging Equipment Instruction Manual
- 3.4 National Warning System (NAWAS) Operations Manual
- 3.5 State of Wisconsin - Division of Emergency Government Warning Plan and Standing Operating Procedures
- 3.6 Procedures for the Emergency Broadcast System - East Central Wisconsin EBS Operational Area
- 3.7 WPSC Public Information Emergency Response Plan
- 3.8 Fluor Power Services, Inc. Emergency Response Plan

3.9 American Nuclear Insurers (ANI) Accident Notification Procedure

3.10 Wisconsin Telephone's Emergency Preparedness Plan in Support of a Nuclear Incident

4.0 RESPONSIBILITIES

4.1 The Emergency Director is responsible for the following notifications.

4.1.1 The required initial notifications.

4.1.2 Additional notifications to support personnel to augment the shift staff.

4.1.3 Follow-up notifications of plant status, emergency escalation or de-escalation and close out.

4.2 The Emergency Response Manager is responsible for the following notifications.

4.2.1 The required initial notifications of corporate response personnel.

4.2.2 Additional notifications to corporate support personnel to augment the corporate response.

4.2.3 Follow-up notification of site conditions, emergency escalation or de-escalation and close out to offsite authorities after Emergency Operations Facility (EOF) activation.

4.3 The Emergency Response Organization directors are responsible for notifying technical personnel and response team members to support their groups duties and functions.

5.0 REQUIREMENTS

5.1 Onsite personnel are notified of a plant emergency using the (PBX) telephone system and the 5-channel Gai-tronics intra-plant paging system. The Control Room and Technical Support Center are equipped with "Night Bells" for after hours incoming calls. The use of these systems is described in System Description #44 Communications. Both systems have non-interruptible power sources.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-17

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- 5.2 The required initial notifications are detailed in the respective emergency class notification procedure:

EP-AD-7, Notification of Unusual Event
EP-AD-8, Notification of Alert
EP-AD-9, Notification of Site Emergency
EP-AD-10, Notification of General Emergency

- 5.3 The required initial notifications of corporate response personnel are detailed in:

EP-ECF-3, Corporate Response to an Unusual Event
EP-ECF-4, Corporate Response to an Alert
EP-ECF-5, Corporate Response to a Site Emergency
EP-ECF-6, Corporate Response to a General Emergency

- 5.4 Offsite WPS Emergency Response Organization personnel should be initially contacted by commercial telephone. If the person can not be contacted by telephone, or time does not permit making individual telephone calls, the person's pager should be activated. Office and home telephone numbers, radio-pager activation instructions and two-digit pager codes are contained in Table AD-17.1.

- 5.5 Initial notifications to the State of Wisconsin and Kewaunee and Manitowoc counties shall be made using the NAWAS telephone described in Table AD-17.2. Follow-up contacts to the State of Wisconsin will be made using commercial lines using the numbers in Table AD-17.3. Follow up contacts to Kewaunee and Manitowoc counties can be made using the Dial Select phone if the E.O.C's have been activated, otherwise use commercial lines using the numbers in Table AD-17.3. Dial Select numbers are as follows:

Kewaunee Nuclear Power Plant TSC
Emergency Operations Center
Kewaunee County EOC
Manitowoc County EOC
Point Beach TSC
ALL CALL

- 5.6 Initial contacts to the U.S. Coast Guard, INPO, American Nuclear Insurers or other support agencies shall be made using the commercial telephone system. Support agencies telephone numbers are provided in Table AD-17.3.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

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- 5.7 Initial notification to the U.S. Nuclear Regulatory Commission, Bethesda, MD, will be through the Emergency Notification System (ENS) red phone. ENS phones are located in the Control Room and Technical Support Center. The commercial telephone backup number is
- 5.8 Intra-company communications will be through ring-down circuits and the commercial telephone system. Each Emergency Response Facility (ERF) is furnished with a plant telephone extension listing and diagram detailing ring-down circuits available in that facility.
- 5.9 Communications with plant emergency teams and environmental monitoring teams will be using Motorola two-way radios and the plant transmitter. Remote console stations are located in the Shift Supervisor's office, Radiation Protection Office (RPO), Emergency Operations Facility (EOF) and Site Access Facility (SAF). Each base station has intercom capabilities with each of the other base stations. The RPO station may be relocated in the Radiological Analysis Facility (RAF) if RPO evacuation is necessary. Team designation and base station location should be used in all communications.
- 5.10 Each Emergency Response Organization director should maintain a log detailing:
- Changes in plant status or emergency classification
 - Actions taken
 - Important data received
 - Any recommendations made
- 5.11 Messages sent or received should be documented in a communicator's log with information on Form AD-17.

TABLE AD-17.1
EMERGENCY CALL LIST

- 1.0 Tone and Voice Radio Pagers are assigned to Personnel as shown with call numbers on the Emergency Call List.
- 2.0 Whenever it is necessary to contact a person on the Emergency Call List and he is not onsite, the home telephone number should be called first. If he cannot be reached at home, contact should then be attempted by using the group call number. Tone and voice contact by pagers is effective within 15 mile radius of the transmitting station. Only tone contacts can be made outside the 15 mile radius.

3.0 How to Place a Page

- 3.1 Determine the two digit pager code for the party or group you wish to contact from the Emergency Call List.

BLACK PHONE ONLY

Located in the Shift Supervisor's office.

NOTE: The Black Phone only activates the Kewaunee transmitter. This phone cannot be used to activate the Green Bay transmitter. To activate the Green Bay transmitter, go to step 3.5 - Plant Extension Phone.

- 3.2 Dial the two digit pager code for the party or group you wish to contact from pager assignment list.
- 3.3 Listen for the acknowledge (beeping) tone, indicating page being transmitted.
- 3.4 When the beeping tone stops, speak your message to the called party. There is no allotment time for calls on this phone. After message, hang up the phone.

PLANT EXTENSION PHONES

- 3.5 Dial the terminal access code on any plant extension.

Kewaunee site transmitter -

Green Bay transmitter -

- a. When the terminal answers and responds with a beep, go to step 3.6.
- b. If you hear a "busy" signal, hang up and try again.

TABLE AD-17.1
EMERGENCY CALL LIST (cont'd)

- 3.6 Dial the two digit pager code for the party or group you wish to contact from the pager assignment list.

NOTE: This number must be preceded by a "1" when using the Green Bay transmitter.

- 3.7 Listen for the acknowledge (beeping) tone, indicating page being transmitted.
- 3.8 When the beeping tone stops, speak your message to the called party. You have about 20 seconds to talk, after which the terminal will hang up. Replace the telephone receiver.

GREEN BAY EXTENSION PHONES

- 3.9 Dial the Kewaunee Plant tie line
- 3.10 Then dial plant extensions:
- a. For Kewaunee site transmitter -
 - b. For Green Bay transmitter -
- 3.11 When the terminal answers and responds with a beep, go to step 3.12.
- a. If you hear a "busy" signal, hang up and try again.
- 3.12 Dial the two digit pager code for the party or group you wish to contact from the pager assignment list.
- NOTE: This number must be preceded by a "1" for the Green Bay transmitter.
- 3.13 Listen for the acknowledge (beeping) tone, indicating page being transmitted.
- 3.14 When the beeping tone stops, speak your message to the called party. You have about 20 seconds to talk, after which the terminal will hang up. Replace the telephone receiver.

TABLE AD-17.1
EMERGENCY CALL LIST (cont'd)

4.0 Tone and Voice Pager Operation

- 4.1 Set the ON/OFF switch on the bottom of the pager to the ON position (white dot visible). The alert tone will sound to indicate battery condition. If tone is absent, replace or recharge batteries.
- 4.2 Press the reset touch bar on top of the pager. This resets the pager to standby and eliminates the squelch noise.
- 4.3 When you are paged and the alert tone is heard, the voice message is heard automatically. Volume control can be adjusted for desired level.
- 4.4 After a message, press the reset touch bar to reset the unit.
- 4.5 Key emergency response personnel and their alternates should telephone the plant at _____ after receipt of a pager signal/message to confirm that contact has been made.

TABLE AD-17.1
EMERGENCY CALL LIST (cont'd)

EXTENSION HOME PHONE PAGER CODE

Corporate Support Group

--- -----

TABLE AD-17.1
EMERGENCY CALL LIST (cont'd)

	<u>EXTENSION</u>	<u>HOME PHONE</u>	<u>PAGER CODE</u>
Operations Group	---	-----	

TABLE AD-17.1
EMERGENCY CALL LIST (cont'd)

	<u>EXTENSION</u>	<u>HOME PHONE</u>	<u>PAGER CODE</u>
Plant Supervisors/STA's Group	---	-----	

TABLE AD-17.1
EMERGENCY CALL LIST (cont'd)

	<u>EXTENSION</u>	<u>HOME PHONE</u>	<u>PAGER CODE</u>
Health Physics/Chemistry/Site Team	---	-----	

TABLE AD-17.1
EMERGENCY CALL LIST (cont'd)

EXTENSION

HOME PHONE

PAGER CODE

Fire Teams

TABLE AD-17.1
EMERGENCY CALL LIST (cont'd)

	<u>EXTENSION</u>	<u>HOME PHONE</u>	<u>PAGER CODE</u>
Electricians	---	-	

I & C

TABLE AD 17.1
EMERGENCY CALL LIST (cont'd)

	<u>EXTENSION</u>	<u>HOME PHONE</u>	<u>PAGER CODE</u>
Environmental Protection Directors	-----	-----	
Environmental Monitoring Team	-----	----	

TABLE AD-17.2
NWAS OPERATIONS

- 1.0 The black telephone and loudspeaker located in the Technical Support Center are part of the National Warning System. Points throughout the state as shown in the following drawing can be accessed simultaneously by removing the handset. Messages should be directed to Kewaunee County, Manitowoc County, the East Central Warning Center in Fond du Lac and Wisconsin Warning Center I in Madison.

- 2.0 Telephone operation is achieved by removing the handset and depressing the PUSH-TO-TALK button on the inside of the handset. Messages should be of the form:

"Kewaunee Nuclear calling Warning Center I, East Central Area, Kewaunee County, Manitowoc County. Please acknowledge."

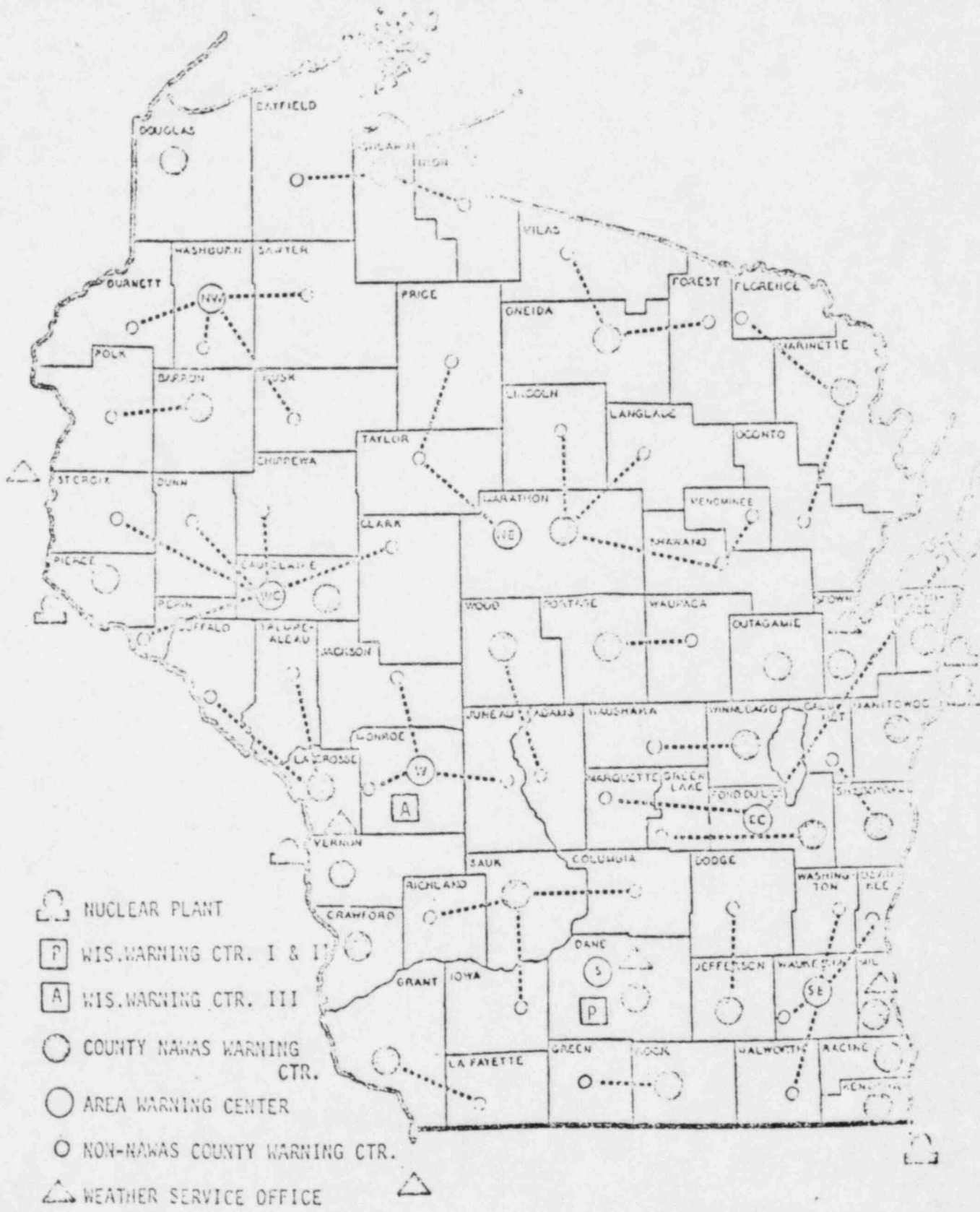
Wait until each area has acknowledged before continuing. If any area fails to acknowledge, request that Warning Center I ring that area and continue:

"Please take the following message. This is (title) at the Kewaunee Nuclear Plant.
(Insert the desired message)
Relay this information to Emergency Government immediately.
Any return contacts or confirming calls should be through commercial telephone.
Please acknowledge receipt of message."

Each area contacted should acknowledge message.

NATIONAL WARNING SYSTEM - WISCONSIN
TABLE AD-17.2 (cont'd)

FD-40-17
EAB 10 1-63
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Note: Warning Centers I, II, III & Milwaukee Weather Service Office have ring-down capability

TABLE AD-17.3
Support Agencies - Commercial Phone Numbers

*NOTE: Long Distance Calls must be preceded by a (1)

American Nuclear Insurers	
Department of Energy	Day Night
East Central Area Office of Emergency Government - Fond du Lac Fluor Power Services	
..., Director	Office Home
Alternate	Office Home
Hazleton	Office Home
	Office Home
Institute of Nuclear Power Operations (INPO)	
Kewaunee County (Sheriff's Department)	
Kewaunee County Emergency Government (EOC)	
Manitowoc County (Sheriff's Department)	
Manitowoc County Emergency Government Director	
Medical Assistance	
Two Rivers Hospital	
U.W. Hospital E.R.	
National Weather Service Office (Green Bay)	
NRC - Region III - Chicago Operations Office	
Point Beach Nuclear Power Plant	
Public Service Commission of Wisconsin	
RAD Services, Incorporated	
State Police - Fond du Lac	
U.S. Coast Guard	Day Night
Westinghouse	Day Night Day Night
Wisconsin Division of Emergency Government	

FORM AD-17.1
STATUS UPDATE

1. IDENTIFICATION

This is _____ the _____
(Name) (Title)

at the Kewaunee Nuclear Power Plant reporting the status of the (Unusual Event/
Alert/Site Emergency/General Emergency) in progress at _____
on _____ (Time of Call)
(Date)

2. STATUS

The following information is now available:

A. Plant

(1) Description of event _____
(Fire, Explosion, Pipe or Tank Rupture, etc.)

(2) Corrective action taken: _____

(3) Condition of Reactor (shutdown/not shutdown).

(4) Major equipment affected: _____

(5) Plant Personnel

(1) Injuries (yes/no); if yes, number injured _____

(2) Contaminated personnel (yes/no); if yes, number _____

(3) Overexposure to personnel (yes/none/possibility exists);
if yes, number _____

(4) Other potential or actual hazards _____

FORM AD-17.1

STATUS UPDATE (cont.)

C. Meteorological Conditions

- (1) Wind speed _____ (mph)
- (2) Wind direction _____ degrees (from _____ to _____)
Compass Compass
- (3) Stability class _____
- (4) General weather conditions _____

D. Radiological Conditions Off-Site

- (1) Release of radioactive material is (not expected/expected/in progress).
- (2) (If applicable)
- (a) Release of radioactive material (will start/has started)
at _____ on _____ and is expected to continue
(Time) (Date)
for _____.
(Hour/Minutes)
- (b) The radiological release is in (liquid/gaseous) form and is
(controlled/uncontrolled).
- (c) The release rate is estimated to be:
Iodine _____ Ci/sec
Noble gas _____ Ci/sec
- (d) The projected arrival time for the plume at _____
miles down wind is _____.
(Time)
- (e) The projected dose at _____ miles down wind at plume
centerline is _____ Rem to the whole body and _____
Rem to the thyroid.
- (f) (If applicable) Measured surface deposition is _____
(dpm/100 cm² or Ci/m²) at _____
(Location)

FORM AD-17.1

STATUS UPDATE (cont.)

3. RECOMMENDED PROTECTIVE ACTIONS ARE:

A. None

B. Take shelter in following areas:

(Location, sector and miles radius)

C. Evacuate the following areas:

(Location, sector and miles radius)

D. Other

(Recommended Action) in _____
(Location)

(Recommended Action) in _____
(Location)

4. Press releases from the JPIC in Two Rivers, Wisconsin (are/are not) planned.

5. Additional assistance required (yes/no). If yes:

A.

(Problem Area) _____
(Agency)

B.

(Problem Area) _____
(Agency)

C.

(Problem Area) _____
(Agency)

Assessment of plant conditions will continue. Further status update will be transmitted to you periodically, based on the change in plant conditions.

Time Notified

<u>Agency</u>	<u>Contact</u>	<u>Time/Date</u>	<u>Initials</u>
Wisconsin Emergency Operations Center	_____	_____	_____
State Patrol - Fond du Lac or East Central Area EOC (If activated)	_____ _____	_____ _____	_____ _____
Kewaunee County Sheriff, or Kewaunee County EOC (If activated)	_____ _____	_____ _____	_____ _____
Manitowoc County Sheriff, or Manitowoc County EOC (If activated)	_____ _____	_____ _____	_____ _____
Coast Guard	_____	_____	_____

FORM AD-17.2
TELEPHONE COMMUNICATIONS LOG SHEET

DATE:	TIME:	INCOMING	OUTGOING	
TO:		FROM:		
Message:				
Sent by:				
Received by:				

DATE:	TIME:	INCOMING	OUTGOING	
TO:		FROM:		
Message:				
Sent by:				
Received by:				

DATE:	TIME:	INCOMING	OUTGOING	
TO:		FROM:		
Message:				
Sent by:				
Received by:				

WISCONSIN PUBLIC SERVICE CORPORATION
Dunn Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-AD-18 REV. A

TITLE: Availability of Inorganic Iodine
Salts for Iodide Saturation of the
Human Thyroid Gland

DATE: MAR 10 1993

PAGE 1 of 2

REVIEWED BY

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APPROVED BY

[Signature]

1.0 APPLICABILITY

- 1.1 This procedure will be followed if predictions indicate WPS personnel could receive a dose to the thyroid of 10 Rem. The prediction will be made using EP-RET-6, Dose Projections, or EP-ENV-3E, Manual Environmental Dose Projection Calculations, using measured airborne concentrations and projected exposure durations.
- 1.2 Chemical agents which inhibit iodine (as iodide) uptake by the thyroid gland will not be used as alternatives to respiratory protection devices.

2.0 PRECAUTIONS

- 2.1 Inorganic salts of iodine (e.g. KI) will only be made available upon instruction from the Radiological Protection Director (RPD) or Emergency Director (ED).
- 2.2 The recommended dosage of 130 mg (one tablet of commercial preparation Thyro-block) potassium iodide (KI) for ten days shall not be exceeded. Dosages above this amount offer no additional protection to an individual's thyroid.
- 2.3 The Thyro-Block (potassium iodide) must be taken at least one hour prior to exposure to any chemical form of radioactive iodine if protection of the thyroid is to be achieved. Ingestion of such an agent after exposure is of NO value to an individual.
- 2.4 Some humans have experienced side effects from ingesting potassium iodide in low dosages. Therefore, the pamphlet distributed with the Thyro-Block tablets should be consulted for a description of such possible side effects.

3.0 REFERENCES

- 3.1 NCRP Report No. 55, Protection of the Thyroid Gland in the Event of Release of Radioiodine.
- 3.2 Bureau of Radiological Health Publication FDA 81-8958, Background Material for the Development of the Food & Drug Administration's Recommendations on Thyroid-Blocking with Potassium Iodide.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO.	EP-AD-18	
TITLE:	Availability of Inorganic Iodine Salts for Iodine Saturation of the Human Thyroid Gland	
DATE:	MAR 10 1983	PAGE 2 of 2

- 3.3 Textbook of Endocrinology, Fifth Edition, R. H. Williams, Editor, cpy. 1974, W. B. Saunders Co., Philadelphia, PA.
- 3.4 Cecil Textbook of Medicine, Fifteenth Edition, Reeson, Mc Dermott and Wyngaarden, Editors, Cpy. 1974, W. B. Saunders Co., Philadelphia, PA.

4.0 INSTRUCTIONS

- 4.1 Supplies of Thyro-Block (potassium iodide) will be maintained in the Control Room, Technical Support Center, and the Site Access Facility.
- 4.2 When the agent Thyro-Block (potassium iodide) is made available, leaflets describing dosage and possible side effects of same will be given to all potential recipients of the salt.
- 4.3 If personnel electing to ingest Thyro-Block (potassium iodide) experience any side effects, the RPD shall be notified. Professional medical attention for afflicted personnel will then be immediately obtained.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-ENV-1 REV. B

TITLE: Environmental Monitoring Team
Organization

DATE: MAR 10 1983 PAGE 1 of 4

REVIEWED BY

W. R. [Signature]

APPROVED BY

[Signature]

1.0 PURPOSE

1.1 This procedure will describe the organization of the Environmental Monitoring Team (EM) and the duties and responsibilities assigned to the Environmental Protection Director (EPD), the Environmental Monitoring Team Coordinator and the Environmental Monitoring Team Members.

2.0 APPLICABILITY

- 2.1 The Environmental Monitoring Team will be activated during any incident where a radiological release has or may occur, or when deemed necessary by the Emergency Director (ED) or the Emergency Response Manager (ERM).
- 2.2 If the need for environmental measurements exist, the EM team will be directed by the EPD.

3.0 REFERENCES

- 3.1 EP-ECF-1: Off-Site Organization
- 3.2 EP-ENV-3E, Manual Environmental Dose Projection Calculations
- 3.3 EP-ENV-3F, Protective Action Recommendations
- 3.4 Emergency Plan Appendix D: Letters of Agreement

4.0 DEFINITIONS

- 4.1 Off-Site - The area beyond the site boundary of the Kewaunee Nuclear Power Plant.
- 4.2 Site Boundary - the area approximately 1 mile north to Sandy Bay Road, 2 miles south to Zander Road, and 3/4 mile west on Nuclear Road to the Site Access Facility (SAF).
- 4.3 Site - the area extending from the fenced-in region around the plant itself to the Site Boundary.
- 4.4 Environmental Sampling - Air, water, snow, soil, vegetation, and milk samples taken to aid in accident assessment and impact on the public due to accidental releases of radioactive effluents.

4.5 Environmental Monitoring Team - a pool of trained personnel formed by an EM Team Coordinator and 3 teams (each consisting of 2 members).

4.6 Environmental Consultants - specialists from Hazleton Laboratories America, Inc., called in at the request of the EPD to analyze environmental samples (i.e. soil, vegetation, and liquid samples).

5.0 RESPONSIBILITIES

5.1 The Environmental Protection Director (EPD)

5.1.1 He is responsible for directing the EM Teams to collect and analyze site and off-site environmental samples from his location at the Emergency Operations Facility (EOF).

5.1.2 Upon arrival, he shall obtain information from the Radiation Protection Director (RPD) concerning source term (isotopic content, activity level, and duration) of any release which has occurred, is in progress or is expected to occur. He shall also obtain information concerning the plume path and dose projection.

5.1.3 He shall then perform off-site dose projections, in accordance with EP-ENV-3E and 3F.

5.1.4 He shall report to the Emergency Response Manager (ERM) any changes in environmental radiological conditions or abnormal results which could indicate a change in plume path, and shall communicate this same information to the Radiation Protection Director (RPD).

5.1.5 He shall, in conjunction with the Emergency Director (ED) and RPD, make Protective Action Recommendations to the ERM based on results obtained from off-site monitoring, sampling and initial predictions.

5.1.6 He shall keep the State Radiological Coordinator informed of sample data acquired on a two-way exchange of information basis.

5.2 Environmental Monitoring Team Coordinator

5.2.1 An EM Team Coordinator will be appointed by the EPD and shall be responsible for coordinating all environmental monitoring, sampling, and analysis performed by Environmental Monitoring Teams under the direction of the EPD.

5.2.2 He is responsible for maintaining the environmental monitoring equipment at the Site Access facility (SAF) during an emergency.

5.3 Environmental Monitoring Team Members

5.3.1 Team members are responsible for monitoring and/or analyzing environmental radiological conditions.

5.3.2 The areas in which they will perform monitoring functions are the Site and Off-Site Areas, as defined in Section 4.0 of this procedure.

5.4 Environmental Consultants

5.4.1 Hazleton shall be responsible for assistance in performing environmental analysis as described in a letter of agreement found in Appendix D of the Emergency Plan.

5.4.2 All analytical results shall be reported to the EPD, as soon as possible.

6.0 REQUIREMENTS

6.1 Environmental Protection Director

6.1.1 According to the procedure outlined in EP-ENV-3E, manual dose projections made by the EPD shall be used to verify calculation from the computer modeled dose projections normally provided by the RPD.

6.1.2 The dose projections mentioned above shall be taken into account when the EPD directs movement of the EM Teams in the field.

6.1.3 The EPD and the RPD shall exchange reported data on a continuous basis.

6.2 Environmental Monitoring Team Coordinator

6.2.1 The EM Team Coordinator shall report all data and information from the EM Teams to the EPD OR HIS ALTERNATE AS THE SITUATION DICTATES. (See Section 6.3.1 of this procedure)

6.3 EM Team Members

6.3.1 All EM Team Members shall report to the following people in the order indicated here, according to availability:

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-EHV-1

TITLE: Environmental Monitoring Team
Organization

DATE: MAR 10 1983

PAGE 4 of 4

- a. EM Team Coordinator
- b. Environmental Protection Director
- c. Emergency Response Manager
- d. Radiological Protection Director
- e. Emergency Director

6.3.2 EM Team Members shall use their own personal vehicles for transportation during sample acquisition and transport, until company vehicles arrive at the SAF.

6.3.3 Until the arrival of the EPD at the EOF, the EM Team Coordinator and the EM Team Members shall take direction for environmental monitoring from the RPD.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTATION PROCEDURE

NO. EP-ENV-2

REV. B

TITLE: SAF Activation

DATE: MAR 10 1983

PAGE 1 of 2

REVIEWED BY

M. P. Muehle / D. J. [unclear]

APPROVED BY

C. Luoma

1.0 Action Level

| The SAF Counting Facility shall be activated when an emergency has been classified as a site emergency or general emergency or at the discretion of the ERM or ED.

2.0 Precautions

2.1 The SAF will be unlocked by Security to allow access and activation.

2.2 Habitability of the SAF should be determined as per EP-RET-4C.

3.0 REFERENCES

| 3.1 EP-RET-4B, Radiological Controls at the SAF.

| 3.2 EP-RET-4C, Site Radiological Monitoring.

4.0 Instructions

IMMEDIATE

4.1 The first man from the Environmental Monitoring Team arriving at the SAF shall perform the following actions and assume the position of the coordinator until properly relieved by a designated coordinator.

4.1.1 Check out TLDs and pocket dosimeters (see EP-RET-4B).

4.1.2 Energize and note background count-rate on RM-14.

NOTE: If count-rate is between 1,000 and 5,000 cpm, the dose rate is approximately 1-3 mR/hr and will make the SAF unsuitable as a sample analysis facility. This must be reported to the EPD or RPD IMMEDIATELY; refer to EP-ENV-6B, SAF Environmental Sample Analysis Relocation.

| 4.1.3 Establish telephone communications with RPO/RAF or Control Room
| to verify operation of the communication line. Report Background
| Radiation at SA.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTATION PROCEDURE

NO. EP-ENV-2

TITLE: SAF Activation

DATE: MAR 10 1983

PAGE 2 of 2

- 4.1.3 Energize counting equipment and commence background count determination on the SAM II, LCS-1, and MS-3, in accordance with ENV-5A thru 5C. Unlock and open monitoring equipment lockers.
- 4.1.4 Perform a radio operational check on the base station and all portable radios in the SAF. This is accomplished by establishing voice communication with personnel at the EOF, Radiological Protection Office, Radiological Assessment Facility, or Control Room.
- 4.2 The second person arriving from the EM team shall perform the following steps:
- NOTE: If the second person is a designated coordinator, he shall assume his assigned duties and the first perform the following steps:
- 4.2.1 Commence operational checks of Portable Radiation Detection Equipment:
- a. Battery checks - Satisfactory
 - b. Source checks - Satisfactory
 - c. Calibration within last 180 days
 - d. Physical condition - Satisfactory
- 4.2.2 Contact the RPD to determine the location of Reuter-Stokes (RSS-111).
- 4.2.3 Commence efficiency determinations on the SAM-II, LCS-1, and MS-3 in accordance with EP-ENV-5A thru 5C.
- 4.2.3 Perform operational checks as follows on Portable A-C Generators:
- a. Oil level - Satisfactory
 - b. Gasoline tank - Full
 - c. Start and warm up
- 4.3 Report to EPD or RPD when SAF counting facility is activated and a two man EM team is at the SAF ready to be dispatched.

Supplemental Action

- 4.4 Assist in issuance of Equipment to Site Team(s).
- 4.5 EM Team should gather Radiation Detection and Sampling Equipment and await dispatch orders.

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APPROVED BY

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1.0 APPLICABILITY

Upon the classification of an incident as a Site or General Emergency, or during an Alert if conditions warrant, the Environmental Protection Director (EPD) will execute this procedure.

2.0 PRECAUTIONS

- 2.1 Projected dose rates, concentrations and meteorological conditions must be known prior to dispatching the Environmental Monitoring Teams (EM Teams).
- 2.2 Ensure proper protective actions are taken for the Environmental Monitoring Team members prior to dispatch.
- 2.3 Utilize the Field Map with Plexiglass Cover in recording field results.

3.0 REFERENCES

- 3.1 EP-AD-11, Emergency Radiation Controls
- 3.2 EP-RET-2, Inplant Radiation Emergency Team

4.0 DIRECTIONS

Environmental Protection Director

- 4.1 If notified by pager, confirm contact with a telephone call to the control room at
- 4.2 If informed of EOF activation by the ERM:
 - a. Notify members of the Environmental Monitoring Team per Form ENV-3A.1.

NOTE: If unable to contact a sufficient number of personnel from the group by using home or office telephone numbers, activate the pager system per attached Table ENV-3A.2 or call System Operating at _____ and provide your name and title and the names and titles of the individuals you wish to page. Also provide a brief (20 seconds) message to be broadcast over the pagers. System Operating personnel will attempt to contact these individuals via the paging system.

b. Proceed to the ECF.

4.3 Determine the plume track via EP-ENV-3C, Primary Determination of X/Q, or 3D, Backup Determination of X/Q, as applicable.

4.4 Determine the projected environmental dose via EP-ENV-3E, Manual Environmental Dose Projection Calculations.

4.5 Determine Protective Actions needed via EP-ENV-3F, Protective Action Recommendation Determinations.

NOTE: See Decision Flow Chart, Figure 3A.1.

4.6 Maintain a log of all significant events reported and directed.

5.0 PERSONNEL DISPATCH

5.1 Evaluate the radiological consequences in consultation with the Radiological Protection Director (RPD) from the above data and advise Environmental Monitoring Teams accordingly of the appropriate protective actions.

5.2 Dispatch Environmental Monitoring Teams, via the Environmental Monitoring Team Coordinator, to the projected plume path as follows:

NOTE: As Form ENV-3A.2 is initiated for Tracking EM Team Sampling, record Dose Projections (ENV-3E) for the sample points on the form.

5.2.1 Both teams to sample at a predetermined sample point, TABLE ENV-3A, near the projected edges. Space the teams in order to define the plume shape and characteristics.

NOTE: If lake breeze effect exists as determined in EP-ENV-3C or 3D, refer to step 6.0 for guidance in directing environmental monitoring teams.

5.2.2 Cautiously send both teams toward the plume centerline or "hot spot". Maintain sufficient distances between the teams in order to define the plumes shape and characteristics.

5.2.3 After the plant has discontinued releases, continue tracking the plume to the perimeter of the EPZ.

5.2.4 Record the locations on Form ENV-3A.2, using Base Map sector designate and predetermined sample location number.

EXAMPLE: Log: Sector "A" at "point 122"

5.3 Record the following data for each environmental sample location on Form ENV-3A, when received from EMT Coordinator.

- 5.3.1 Date and Time results received.
 - 5.3.2 Direct radiation readings.
 - 5.3.3 Particulate activity.
 - 5.3.4 I-131 concentration.
 - 5.3.5 Noble gas concentration.
 - 5.4 Mark the results on the plexiglass covered field maps.
 - 5.5 Transmit to the Technical Support Center Communicator the most current data recorded on field maps.
 - 5.6 Redirect the Environmental Monitoring Teams to take subsequent samples as necessary.
 - 5.7 Transmit the measured data, and any plume track changes, to the Radiological Protection Director promptly.

NOTE: Meteorological conditions should be checked periodically.
 - 5.8 Direct the Environmental Monitoring Team Coordinator to take appropriate action for the collection and storage of all environmental samples at the Site Access Facility.
 - 5.9 Continue to update plume path sample results on the Field Map as results are reported.
 - 5.10 Review and update X/Q determinations (EP-ENV-3C or 3D) as meteorological conditions warrant.
 - 5.11 Transmit results and recommendations to the Emergency Response Manager.
 - 5.12 Keep the SAF and EM team informed on plant conditions.
- 6.0 EFFECT OF LAKE BREEZE ON PROJECTED EXPOSURES
- 6.1 Actual dose rates west of the Lake Breeze "front" (where the lake breeze meets the prevailing wind) will be lower than projected using X/Q or Xu/Q overlays.
 - 6.2 Exposure from the plume may occur in areas not encompassed by the X/Q or Xu/Q overlays since the plume is directed back toward the lake in the direction of the prevailing wind.

6.3 Monitoring Considerations

A method for determining the location of the Lake Breeze front is developed. The following guidelines should be followed in order to determine the radiological effects of the lake breeze on the plume track.

- 6.3.1 One team should be sent to the predicted lake breeze front position via the plume edge downwind of the prevailing wind. The team should then begin searching for the lake breeze front to verify the predicted lake breeze position. Once discovered the team should be sent downwind of the projected plume with respect to the prevailing wind. The objective is to look for radiation or plume recirculation in the lake breeze.
- 6.3.2 The other team should sample the plume between the lake shore and the lake breeze front.

NOTE: See Figure ENV-3A.2.

FIGURE ENV-3A.1
DECISION FLOW CHART

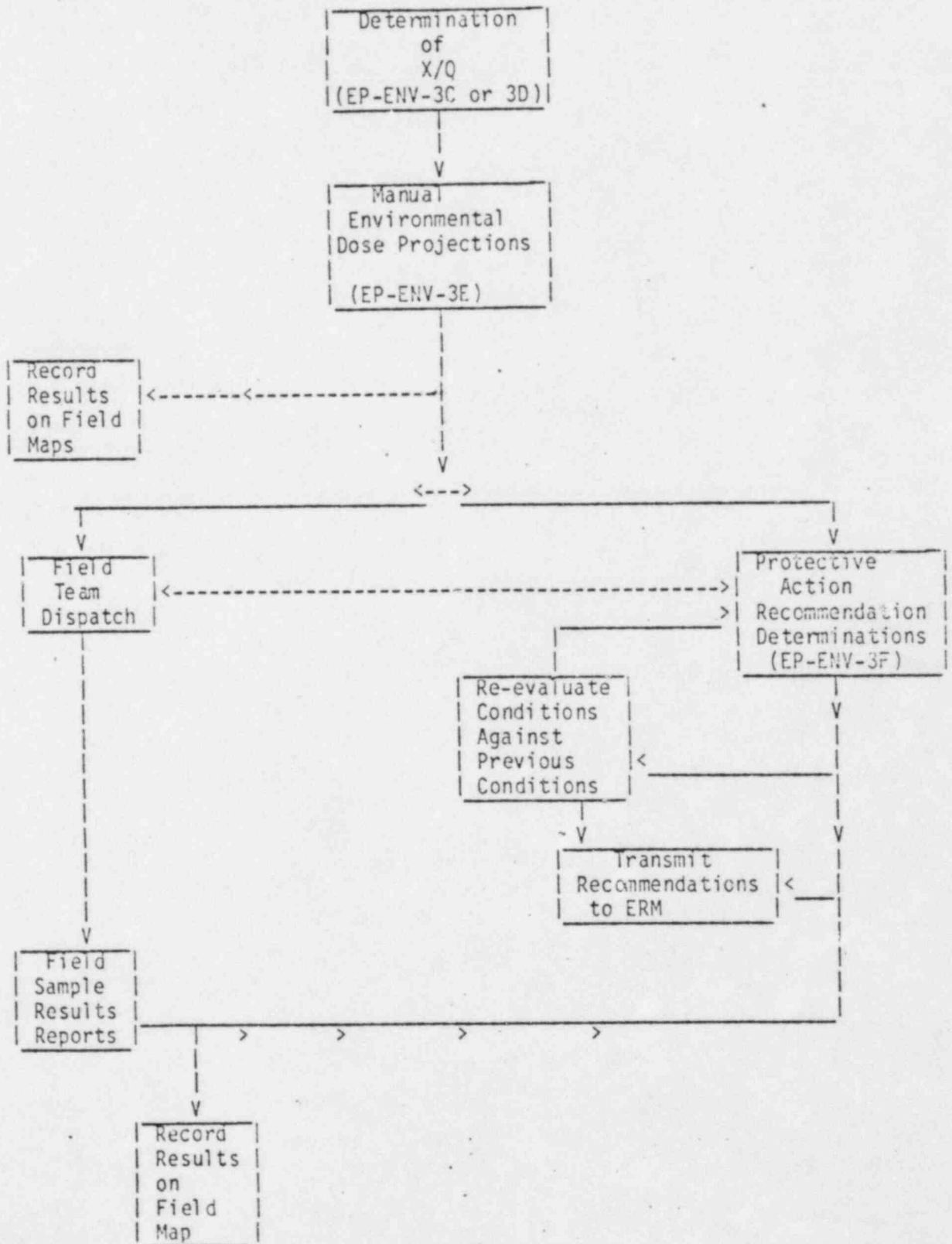
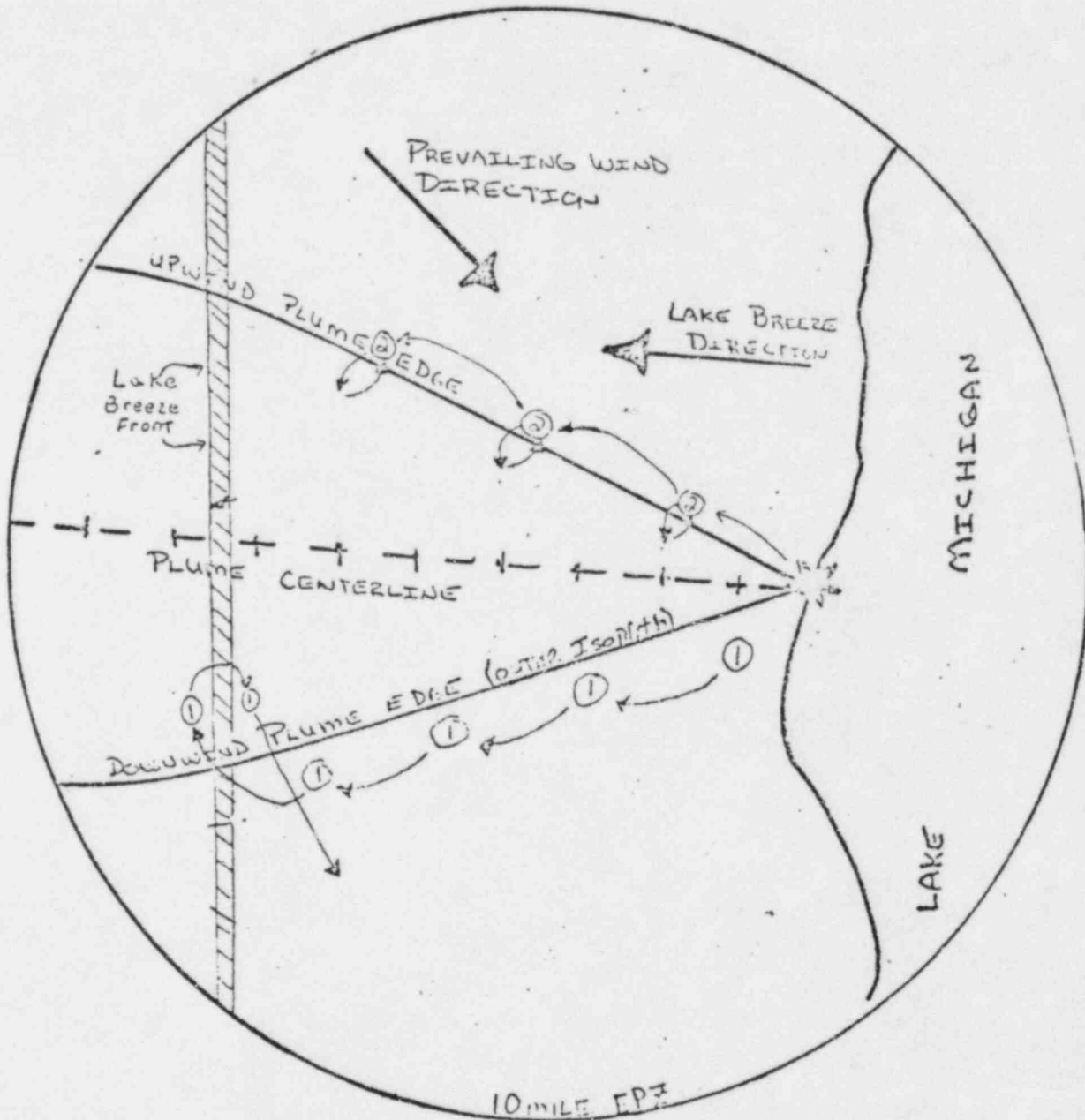


FIGURE ENV-3A.2
LAKE BREEZE EFFECTS DIAGRAM



1. Team Dispatched to Sample lake breeze front and retrun flow.
2. Team Dispatched to Sample plume between plant and lake breeze front.

NOTE: This Drawing is for Illustration Only.
The Actual sampling points are designated by the Environmental Protection Director.

TABLE ENV-3A.1

TLD MONITORING AND SAMPLING LOCATIONS
(1 of 7)

1. Lake Shore Rd (M) 1/4 mile north of Zander Rd
2. Lake Shore Rd (M) 1/4 mile south of Two Creeks Rd
3. Hwy 42 1/4 mile North of Two Creeks Rd Intersection
4. Two Creeks Rd 3/4 mile west of Hwy 42, 1/4 mile N. on Blaha Road
5. County BBB and County BB Intersection
6. County BBB 1/2 mile south of BB
7. 3/4 mile west and 1/2 mile south of County Hwys. BB and BBB inersection (trailer park)
8. County BB 1/4 mile east of Saxonburg Rd
9. County BB 1/2 mile east of State Hwy 163
10. County B 1/4 mile north of Zander Rd
11. Saxonburg Rd 1/2 mile north of Zander Rd
12. Two Creeks Rd 1/2 mile west of Saxonburg Rd
13. Two Creeks Rd 1/4 mile east of State Hwy 163
14. Two Creeks Rd 1/2 mile east of Saxonburg Rd
15. Tannery Rd 3/4 mile north of Tappawingo Rd
16. Access Rd off of Tappawingo Rd 1/4 mile eas of Tannery Rd
17. Tappawingo Rd 3/4 mile west of Tannery Rd
18. Tappawingo Rd 1/4 mile west of Saxonburg Rd
19. Tappawingo Rd 1/4 mile west of State Hwy 163
20. Tappawingo rd and Jambo Creek Rd Intersection
21. Jambo Creek Rd 1/4 mile north of Holmes Rd
22. County Hwy BB 1/2 mile west of State Hwy 163
23. Lakeshore Rd (M) 1/4 mile north of Nuclear Rd (M)
24. Nuclear Rd (M) 1/2 mile eas of State Hwy 42

(M) = MICHIGAN COUNTY

TABLE ENV-3A.1 (cont'd)
(2 of 7)

25. Lakeshore Rd (M) and Nuclear Rd (M) Intersection
26. Irish Rd 1/4 mile east of Meyer Rd
27. State Hwy 177 1/4 mile west of County Hwy. 0
28. Elmwood Rd and Ravine Rd Intersection
29. Tannery Rd 1/4 mile north of Elmwood Rd
30. 1/4 mile east of County Hwy V and State Hwy 42 Intersection
31. State Hwy 42 1/2 mile north of Irish Rd
32. Benzinger Rd 1/4 mile west of Tannery Road
33. County Hwy V and Saxonburg Rd Intersection
34. Corners Rd and Division Dr. Intersection
35. State Hwy 42 1/4 mile north of Rawley Rd
36. South entrance road to Point Beach State Park, 1/4 mile east of County Hwy. 0
37. Nuclear (M) 3/4 mile west of Tannery Rd
38. 1/4 mile south and 1/4 mile west of Saxonburg Rd and Nuclear Rd (M) Intersection
39. Tappawingo Rd 0.1 mile east of State Hwy 42
40. State Hwy 163 and State Hwy 147 Intersection
41. Prince Rd 1/4 mile north of Rockledge Rd
42. Jambo Creek Rd 1/4 mile north of Rockledge Rd
43. County Hwy Q and Intersection with Factory Rd
44. County Hwy Q 1/4 mile north of Zander Rd
45. County Hwy BB 0.4 mile east of Harpt Lake Rd
46. Nuclear Rd (K) 0.4 mile west of State Hwy 42
47. Nuclear Rd (K) 1/2 mile west of Hwy 42
48. County Hwy BB and state Hwy 42 Intersection
49. German Lane 1/4 mile west of State Hwy. 42

(K) - Kewaunee County
(M) - Manitowoc County

TABLE ENV-3A.1 (cont'd)
(3 of 7)

50. State Hwy 42 1/4 mile south of Nuclear Rd (K)
51. State Hwy 42 and Nuclear Rd (K) Intersection
52. State Hwy 42 and Nuclear Rd (K) Intersection
53. State Hwy 42 and Intersection of Nuclear Rd (K)
54. State Hwy 42 0.4 mile north of Nuclear Rd (K)
55. State Hwy 42 1/4 mile south of Sandy Bay Rd
56. State Hwy 42 and Intersection of Sandy Bay Rd
57. Sandy Bay Rd and Intersection of Cemetary Rd
58. Cemetary Rd 1/4 mile north of Sandy Bay Rd.
59. Lake shore Rd (K) and Interection of Cemetary Rd
60. Lake Shore Rd (K) 1/2 mile east of State Hwy 42
61. Lake Shore Rd (K) and State Hwy 42 Intersection
62. Lake Shore Rd (K) 1/2 mile west of State Hwy 42
63. Sandy Bay Rd 1/2 mile west of State Hwy 42
64. Sandy Bay Rd and Intersection of Woodside Rd
65. Woodside Rd 1/2 mile north of Nuclear Rd (K)
66. Woodside Rd and Intersection of Nuclear Rd (K)
67. Woodside Rd 1/4 mile south of Nuclear Rd (K)
68. Woodside Rd 3/4 mile north of County Hwy BB
69. Town Hall Rd 1/4 mile north of County Hwy BB
70. Town Hall Rd 1/4 mile north of Nuclear Rd (K)
71. Town Hall Rd 3/8 mile south of Sandy Bay Rd
72. Town Hall Rd 1/2 mile south of County Hwy G
73. County Hwy G 1/2 mile east of town Hall Rd

(K) - Kewaunee County
(M) - Manitowoc County

TABLE ENV-3A.1 (cont'd)
(4 of 7)

74. Woodside Rd and County Road G Intersection
75. Old Settlers Rd and Cemetary Rd Intersection
76. Old Settlers Rd and Hwy 42 Intersections
77. Old Settlers Rd 1/4 mile east of Woodside Rd
78. Woodside Rd. 1/2 mile south of Old Settlers Road
79. Old Settlers Rd. and Town Hall Road Intersection
80. Norman Road 1/4 mile north of County Hwy. G
81. County Hwy B 1/4 mile west of Norman Rd
82. Saint Peters Rd 1/4 mile north of Old Settlers Rd
83. Wochos Rd and intersection of Old settlers Rd
84. North Intersection of Range Line Rd and County Hwy G
85. County Hwy B 1/4 mile north of County Hwy G
86. Norman Rd 1/4 mile north of Sandy Bay Rd
87. Sandy Bay Rd and Intersection of Saint Peters Rd
88. County Hwy B 1/2 mile south of Sandy Bay Rd
89. Nuclear Rd (K) 1/2 mile east of Range Line Rd
90. Nuclear Rd (K) and Norman Rd Intersection
91. Norman Rd 1/4 mile north of County Hwy BB
92. County Hwy B 1/4 mile north of County hwy BB
93. Range Line Rd 1/4 mile north of County hwy BB
94. Collegiate Rd 1/2 mile west of Range Line Rd
95. State Hwy 163 1/4 mile west of Sleepy Hollow Rd
96. Bolt Rd and County Hwy Q inter-section
97. Bolt Rd 1/4 mile west of Collegiate Rd
98. Knutson Rd and State Hwy 96 Intersection
99. Manitowoc Rd and Langes Corners Rd Intersection

(K) - Kewaunee County (M) - Manitowoc County

TABLE ENV-3A.1 (cont'd)
(5 of 7)

100. State Hwy 163 1/4 mile south of Old Settlers Rd
101. County Hwy J 1/4 mile west of State Hwy 163
102. Sleepy Hollow Rd and Kassner Rd Intersection
103. Church Rd 1/2 mile north of County Hwy J
104. Saint Peters Rd and Town Line Rd Intersections
105. County hwy B 1/4 mile South of County Hwy J
106. County Hwy J 1/4 mile west of Town Hall Rd
107. Town Hall Rd and Town Line Rd Intersections
108. Town Line Rd 1/2 mile west of Woodside Rd
109. Town Line Rd and State Hwy 42 Intersection
110. Town Line Rd 0.3 mile east of Mile Rd
111. Lake Rd 1/2 mile east of State Hwy 42
112. County hwy J 1/2 mile west of State Hwy 42
113. County hwy J 1/2 mile east of Town Hall Rd
114. Krok Rd 1/4 mile west of Sleepy Hollow Rd
115. Krok Rd 1/4 mile west of Church Rd
116. Krok Rd 1/4 mile east of Saint Peters Rd
117. 1/4 mile south of Angle Rd and Krok Rd Intersections
118. State Hwy 42 1/4 mile south of Hospital Rd
119. State Hwy 42 3/4 mile south of County hwy F
120. County Hwy C 1/2 mle west of Kewaunee City
121. County Hwy C 1/2 mile north of County Hwy F
122. Birchwood Rd and County Hwy F Intersection
123. Lilac Lane 1/4 mile north of County F

(K) - Kewaunee County
(M) - Manitowoc County

TABLE ENV-3A.1 (cont'd)
(6 of 7)

124. State Hwy 29 and County hwy B Intersection
 125. Church Rd 1/4 mile north of State Hwy 29
 126. Town Hall Rd 1/2 mile south of State Hwy 29
 127. Angle Rd 1/4 mile south of State Hwy 29
 128. Hospital Rd 3/4 mile north of State Hwy 42
 129. East end of Krok Rd, along the Lakeshore
 130. Old Settlers Rd 1/2 mile east of Twon Hall Rd
 131. 1204 Milwaukee St., Kewaunee
 132. County Hwy. O, 1 1/2 miles south of County Hwy. VV
 133. Lake Shore Rd 1/2 mile north of Kewaunee City
 134. Lakeshore Rd (K) 1/2 mile north of First Road (Barnett Sub.)
 135. County Hwy F 1 1/4 miles west of State Hwy 42
 136. Maple Lane 1/2 mile west of County Hwy C
 137. Church Rd and Town Line Rd Intersection (northeast of Ellisville)
 138. Sleepy Hollow Rd 1/4 mile north of Hwy 29
 139. Reckelberg Rd 1/4 mile south of Krok Rd
 140. Schweiner Rd 1/2 mile south of County hwy J
 141. Schultz Rd and State Hwy 96
 142. Lyons Rd 1/4 mile south of Zander Rd
 143. County hwy Q 1/4 mile north of State Hwy 147
 144. Fisherville Rd and Cherney Rd Intersection
 145. Steiners Corners Rd. 1/2 mile west of State Hwy. 147
- (K) - Kewaunee County
(M) - Manitowoc County

TABLE ENV-3A.1 (cont'd)
(7 of 7)

- 146. Meadow Dr. 1/4 mile north of E. Hillcrest Rd.
- 147. County Hwy. 0 1/2 mile south of County Hwy. VV
- 148. Coast Guard Station, Two Rivers
- 149. WPS Operations Building, Two Rivers
- 150. City Hall Roof, Manitowoc

Table ENV-3A.2
PAGING SYSTEM OPERATION

- A.1 Tone and Voice Radio Pagers are assigned to personnel as shown with call numbers on the Emergency Call List. (See EP-AD-17).
- A.2 Whenever it is necessary to contact a person on the Emergency Call List and he is not on site, the home telephone number should be called first. If he cannot be reached at home, contact should then be attempted by using the person's individual call number. A group of individuals may be contacted by using the group call number. Tone and voice contact by pagers is effective within a 15 mile radius of the transmitting station. Only tone contacts can be made outside the 15 mile radius.
- A.3 How to Place a Page
- 3.1 Determine the two digit pager code for the party or group you wish to contact from the pager assignment list.

PLANT EXTENSION PHONES

- 3.2 Dial the terminal access code on any plant extension.
- Kewaunee site transmitter -
- Green Bay transmitter -
- a. When the terminal answers and responds with a beep, go to step 3.3.
- b. If you hear a "busy" signal, hang up and try again.
- 3.3 Dial the two digit pager code for the party or group you wish to contact from the pager assignment list.
- NOTE: This number must be preceded by a "1" when using the Green Bay transmitter.
- 3.4 Listen for the acknowledge (beeping) tone, indicating page being transmitted.
- 3.5 When the beeping tone stops, speak your message to the called party. You have about 20 seconds to talk. A "click" signals that your allotted time has expired.

TABLE ENV-3A.2 (cont'd)

GREEN BAY EXTENSION PHONES

- 3.6 Dial:
 - a. For Kewaunee site transmitter -
 - b. For Green Bay transmitter -
- 3.7 When the terminal answers and responds with a beep, go to step 3.8.
 - a. If you hear a "busy" signal, hang up and try again.
- 3.8 Dial the two digit pager code for the party or group you wish to contact from the pager assignment list.

NOTE: This number must be preceded by a "1" when using the Green Bay transmitter.
- 3.9 Listen for the acknowledge (beeping) tone, indicating page being transmitted.
- 3.10 When the beeping tone stops, speak your message to the called party. You have about 20 seconds to talk. A "click" signals that your allotted time has expired.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-ENV-3B

REV. D

TITLE: EM Team Actions

DATE: MAR 10 1983

PAGE 1 of 8

REVIEWED BY

M. L. ...

APPROVED BY

C. ...

1.0 APPLICABILITY

In the event of a Site or General Emergency, Environmental Monitoring Team (EMT) Members will be activated. The Emergency Response Manager (ERM) or Emergency Director may activate the team during an Alert if conditions warrant.

2.0 PRECAUTIONS

- 2.1 Check to see if all equipment is operational prior to use in the field.
- 2.2 Ensure all protective clothing/devices are inspected for damage prior to use.

3.0 REFERENCES

- 3.1 EP-ENV-2, SAF Activation
- 3.2 EP-ENV-7, Site Access Facility Communications

4.0 INSTRUCTIONS

4.1 EMT Coordinator Actions

- 4.1.1 Upon pager activation or notification of EOF activation, report to the Site Access Facility (SAF) and assume the responsibility of coordinating the environmental monitoring teams.
- 4.1.2 Establish a communications link with the Emergency Operations Facility (EOF) or the Radiation Protection Office/Radiological Analysis Facility (RPO/RAF) per EP-ENV-7, Site Access Facility Communications.
- 4.1.3 Establish two-man EM Teams as personnel arrive at SAF and give them each a designator. Inform the Environmental Protection Director (EPD) of the designations of the EM Teams.
- 4.1.4 Direct EM Teams to assemble the needed equipment for the appropriate type of field monitoring assigned the team.
- 4.1.5 Ensure each Environmental Monitoring Team has the following equipment:
 - a. Respirator for each team member
 - b. Anti-contamination clothing

- c. Dosimetry (high and low range pocket dosimeters and TLD's)
 - d. Hand held radiation detection equipment
- 4.1.6 Ensure that each team has the equipment specified for the EMT kit (Table ENV-3B).
 - 4.1.7 Report to the EPD when a team is available and ready for assignment.
 - 4.1.8 Upon order from the EPD, direct the designated teams to the appropriate locations: Direct the number of samples each team is required to take at each ordered location prior to returning them to SAF.
 - 4.1.9 Maintain Radio Contact with the EM Teams at all times
NOTE: Contact should be made every 15 minutes.
 - 4.1.10 Track the EM Teams locations on the Field Map and record sample times and locations using Form ENV-3B.2.
 - 4.1.11 Keep the EM Teams informed of any and all changes in radiological conditions they may encounter as soon as possible.
 - 4.1.12 Have the EM Teams report their pocket dosimeter readings during communication contacts.
 - 4.1.13 Record EM Team Member's pocket dosimeter readings on Form ENV-3B.1.
 - 4.1.14 Verify operability of counting equipment has been completed per EP-ENV-5A, B and C (Counting Equipment Operating Procedures) and if not, perform applicable checks.
 - a. Commence counting samples on the appropriate analytical instrument as soon as field samples return.
 - b. Log results on the applicable Counting System Worksheet, and sample activities in the appropriate columns of the Radiological Environmental Monitoring and Sampling Worksheet, Form ENV-3B.2.
 - 4.1.15 Report results to the EPD.

NOTE: Repeat all communications transmitted, to assure accurate transmission of data.

4.1.16 As EM Teams return, direct the team members to resupply their equipment and await further direction.

NOTE: Ensure they have performed appropriate personnel frisking for contamination.

4.1.17 At all times keep the EPD informed of EM Teams availability.

4.2 EM Team Actions

- 4.2.1 Report to the SAF and assume the responsibilities for conducting environmental monitoring.
- 4.2.2 Obtain personnel TLD and High and Low Range Pocket Dosimeters.
- 4.2.3 Assemble proper equipment and check for satisfactory operation in accordance with EP-ENV-4A, B, and C; Sample Acquisition Procedures.
- 4.2.4 When equipment is assembled and operation checks have been completed, report to the EMT Coordinator for direction and assignment.
- 4.2.5 Perform the following upon assignment from the EMT Coordinator:
- a. Load equipment into the designated vehicle.
 - b. Check communications with EMT Coordinator by contacting the SAF:
 1. Approximately every 15 minutes,
 2. Any time that an increase of 4 times general area radiation reading is found,
 3. Any time there is any confusion as to the dispatch order or whenever clarifying information is needed.
 - c. Proceed to the designated area, obtaining general area radiation readings during transit.
 - d. Record transit general area radiation readings in Log book. Use road names and locations; see Area Maps.
 - e. Report to SAF by radio upon arrival at the designated monitoring site.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

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- f. Acquire the samples and readings as directed by the EMT Coordinator, in accordance with EP-ENV-4A, B, and C, Sample Acquisition Procedures

NOTE: Beta/Gamma measurements for the purpose of Plume Tracking should be made over an approximately 30 second time span at approximately 3 to 4 feet above the ground. In the same location measurements at approximately 6 inches above the ground should be taken. If the 6 inch reading is lower in magnitude than the 4 foot measurement, the assumption should be that the predominant radiation source is the airborne Plume, and this should be noted and reported to the SAF (EMT Coordinator).

- g. Maintain accurate records of samples taken and the time acquired.
- h. When all samples have been collected, contact SAF by radio, and report completion. If no further samples are ordered at the present location, request direction from the EM Team Coordinator.

4.2.6 Upon return to the SAF, perform the following steps:

- a. Take collected samples to SAF monitoring station before transporting to counting room.
- b. Decontamination instructions, if necessary, should be obtained from site RET Member.

NOTE: Care must be taken to prevent contaminating the entire SAF Area when teams return to SAF from the field.

4.2.7 Replenish supplies.

4.2.8 Report to the EM Team coordinator when ready for redeployment.

TABLE ENV-3B
SAF E M TEAM KIT

	<u>INITIALS</u>
* 1 PRM 7 uR meter	_____
* 1 PIC 6A ion chamber	_____
* 1 E530 with HP-190 probe & survey tube	_____
* 1 RAP-1 Lo Volume Sampler	_____
* 1 RAP-1 Sample Jumper	_____
* 1 Staplex Hi Vol Sampler	_____
* 1 Hi Band Two-way Radio	_____
* 1 Emergency Generator	_____
1 Flashlight with Batteries	_____
* 2 Full-face Masks with Particulate Cartridges	_____
1 Stopwatch (Pocket Watch)	_____
1 Calculator	_____
4 Marinelli Beakers in Plastic Bags	_____
12 Silver Zeolite Cartridges	_____
12 4" Particulate Filters	_____
12 2" Particulate Filters	_____
4 1 liter wide mouth poly bottles filled with water	_____
1 Pkg Swipes	_____
1 Pkg Sample Labels	_____
4 Garden Trowels	_____
3 Grass clippers	_____
1 6' Measuring Tape	_____
4 Funnels	_____
4 Ladles	_____

TABLE ENV-3B (cont'd)

SAF E M TEAM KIT

	<u>INITIALS</u>
2 dz Small Ziplok Bags 10" x 12"	_____
2 dz poly bags 12" x 18", Clear	_____
3 Tweezers	_____
1 Reflective Vests	_____
4 Poly Bags, 33" x 40", yellow	_____
1 Set EMT Area Maps (large sector map)	_____
2 Clipboards	_____
1 Set Pens & Pencils	_____
12 pr Gloves & Liners	_____
6 pr Canvas Booties	_____
1 roll Tuck Tape	_____
1 book of ENV Procedures and Spare Forms (EP-ENV-1, 2, 3B, 4A, 4B, 4C, 5E & 7)	_____

* NOT LOCATED IN SEALED TRUNK

REVIEWED BY

MLM/DP/asm

APPROVED BY

*Ch Luoma*1.0 APPLICABILITY

This procedure is used to estimate the atmospheric dispersion factor (X/Q) using Green Bay National Weather Service Meteorological Data when Kewaunee Nuclear Power Plant Meteorological Data is not available.

2.0 PRECAUTIONS

2.1 This procedure is to be used only when the following minimum meteorological parameters are not available from the Kewaunee Nuclear Power Plant Meteorological tower.

- a. One wind speed indication (55 meter elevation or 11 meter elevation).
- b. One wind direction indication (55 meter elevation or 11 meter elevation).
- c. Vertical Temperature Difference indication (Delta T between 55 meters and 11 meters).

If this minimum data is available, use ENV-EP-3C, Primary Determination of X/Q (KNPP Meteorological Data), to determine the atmospheric dispersion factor.

2.2 Meteorological data must be re-evaluated every 30 minutes or whenever significant changes occur, to determine if X/Q must be recalculated.

2.3 When determining X_u/Q for a point of interest that falls between two isopleths on an overlay, select the value of X_u/Q that corresponds to the isopleth lying closest to the plume centerline.

If a point of interest lays between an isopleth and plume centerline, select the value of X_u/Q that corresponds to the nearest mile marker on the centerline.

2.4 The WIND DIRECTION CIRCLE on the Base Map may appear to the user to be shifted 180 degrees. This is not an error. The WIND DIRECTION CIRCLE reflects the direct use of wind direction information.

3.0 REFERENCES

- 3.1 NRC Regulatory Guide 1.145, Atmospheric Dispersion Models for Potential Accident Consequence Assessments at Nuclear Power Plants, August 1979.

3.2 NRC Regulatory Guide 1.23, Rev 1 (Proposed), Meteorological Programs In Support of Nuclear Power Plants, September 1980.

4.0 INSTRUCTIONS

4.1 Call the National Weather Service Station at Green Bay
... for meteorological parameters I.A, B, C and D on Form ENV-3D.1

4.2 Call Point Beach Nuclear Plant () for meteorological parameters II.A & B on Form ENV-3D.1.

4.3 Determine the stability class from step III of Form ENV-3D.1.

4.4 Place the ground level overlay for the stability class determined in step 4.3 on the Base Map.

4.5 Align the centerline of the overlay with the wind direction value on the base map wind direction circle.

NOTE: Use local wind direction if available. Use Green Bay wind direction (parameter I.A on Form ENV-3D.1), if not available at the plant.

4.6 Record points of interest in the path of the plume in column 1 of Form ENV-3D.2 and record the corresponding sector in column 2.

4.7 Determine the distance from the release point to each point of interest and record in column 3 of Form ENV-3D.2 (Base Map Scale: 2 inches = 1 mile).

4.8 Record local wind speed (parameter II.B on Form ENV-3D.1) in m/sec in column 4 of Form ENV-3D.2 (wind speed is the same for all points of interest).

NOTE: If local wind speed is not available, use Green Bay wind speed (parameter I.B on Form ENV-3D.1).

4.9 Calculate impact time (IT) using the formula on Form ENV-3D.2 and record in column 5.

4.10 Determine X_u/Q for each point of interest from the overlay and record in column 6 of Form ENV-3D.2.

4.11 Calculate X/Q using the formula on Form ENV-3D.2 and record in column 7.

4.12 Determine if lake breeze exists using Form ENV-3D.3. If lake breeze conditions exist, implement special field monitoring in accordance with EP-ENV-3A, section 6.0.

FORM ENV-3D.1
METEOROLOGICAL DATA WORKSHEET

DATE _____ TIME _____

I. Meteorological Parameters (Green Bay)

<u>Parameter Description</u>	<u>Parameter Name</u>	<u>Parameter Indication</u>
A. Wind Direction	WD(GB)	_____ Degrees
B. Wind Speed	WS(GB) _____ Knots x 0.515 =	_____ meters/sec
C. Opaque Cloud Cover	CLCVR	_____ (tenths)
D. Cloud Ceiling	CLCEG	_____ (feet)
E. Observation Time of above		_____ (time)

II. Meteorological Parameters (Point Beach)

A. Wind Direction	WD(PB)	_____ Degrees
B. Wind Speed	WS(PB) _____ mph x 0.447 =	_____ meters/sec

III. Stability Class

A. Determine the Insolation Class Number (INCLNO) from the below table. _____ INCLNO

DATE	HOUR OF DAY From/To (Military Time)*													
	0001	0601	0701	0801	0901	1000	1100	1201	1300	1400	1501	1601	1701	2400
1/5-1/22	1	1	1	1	2	2	2	2	2	2	1	1	1	1
1/23-2/6	1	1	1	1	2	2	2	2	2	2	1	1	1	1
2/7-2/21	1	1	1	2	2	2	2	2	2	2	1	1	1	1
2/22-3/8	1	1	1	2	2	2	3	2	2	2	1	1	1	1
3/9-3/23	1	1	2	2	2	3	3	3	2	2	2	1	1	1
3/24-4/7	1	1	2	2	3	3	3	3	3	2	2	1	1	1
4/8-4/22	1	1	2	3	3	3	3	3	3	3	2	1	1	1
4/23-5/7	1	2	2	3	3	3	3	3	3	3	2	2	1	1
5/8-5/22	1	2	2	3	3	3	4	3	3	3	2	2	1	1
5/23-6/6	1	2	2	3	3	4	4	4	3	3	2	2	1	1
6/7-6/21	1	2	2	3	3	4	4	4	3	3	2	2	1	1
6/22-7/6	1	2	2	3	3	4	4	4	3	3	2	2	1	1
7/7-7/21	1	2	2	3	3	4	4	4	3	3	2	2	1	1
7/22-8/5	1	2	2	3	3	3	4	3	3	3	2	2	1	1
8/6-8/20	1	2	2	3	3	3	3	3	3	3	2	2	1	1
8/21-9/4	1	1	2	3	3	3	3	3	3	3	2	1	1	1
9/5-9/19	1	1	2	2	3	3	3	3	3	2	2	1	1	1
9/20-10/4	1	1	2	2	2	3	3	3	2	2	2	1	1	1
10/5-10/19	1	1	1	2	2	2	3	2	2	2	1	1	1	1
10/20-11/3	1	1	1	2	2	2	3	2	2	2	1	1	1	1
11/4-11/18	1	1	1	2	2	2	2	2	2	2	1	1	1	1
11/19-12/3	1	1	1	1	2	2	2	2	2	1	1	1	1	1
12/4-12/18	1	1	1	1	2	2	2	2	2	1	1	1	1	1
12/19-1/4	1	1	1	1	2	2	2	2	2	1	1	1	1	1

* If daylight savings time is in effect, subtract 1 hour from local time.

FORM ENV-3D.1 (cont'd)
 METEOROLOGICAL DATA WORKSHEET

DATE _____ TIME _____

B. Determine Net Radiation Index (NRADI) from opaque cloud cover (CLCVR step I.C above), cloud ceiling (CLCEG - step I.D above), isolation class number (INCLNO - step III.A above), and the below table:

NRADI During Daytime (function of CLCVR and CLCEG) and Nighttime Conditions

CLVR	Daytime			Nighttime***
	CLCEG			
	< 7,000 ft	7,000-15,000 ft	>16,000 ft	
0/10	NRADI = ICLNO			NRADI = -2
1/10				
2/10				
3/10				
4/10				
5/10	NRADI* = ICLNO -2 NRADI* = ICLNO -1			NRADI** = -1
6/10				
7/10				
8/10				
9/10				
10/10	NRADI = 0			

- * If NRADI is less than 1, set NRADI equal to 1.
- ** If CLCVR is 10/10 and CLCEG is less than 7000 ft, NRADI equals 0.
- *** Nighttime is defined as that period of time from 1 hour before sunset to one hour after sunrise (see TABLE ENV-3D).

C. Determine the Stability Class from wind speed in meters per second (WS(PB) step II.B above) and Net Radiation Index (NRADI - step III.B above) from the below table:

NOTE: If WS(PB) is not available, use WS(GB) from step I.B above.

STABILITY CLASS

Stability Class as a Function of NRADI and Wind Speed

WS m/sec	NRADI						
	4	3	2	1	0	-1	-2
0-0.77	A	A	B	C	D	F	G
0.78-1.80	A	B	B	C	D	F	G
1.81-2.83	A	B	C	D	D	E	F
2.84-3.85	B	B	C	D	D	E	F
3.86-4.88	B	B	C	D	D	D	E
4.89-5.91	C	C	D	D	D	D	E
5.92-6.94	C	C	D	D	D	D	D
> 6.95	C	D	D	D	D	D	D

FORM ENV-3D.3

LAKE BREEZE EFFECT WORKSHEET

DATE _____ TIME _____

I. Is local wind direction (WDPB - step II.B on Form ENV-3D.1) between 20° and 170° clockwise?

No - No Lake Breeze

Yes - Proceed to step II

II. Is Green Bay wind direction (WDGB - step I.B on Form ENV-3D.1) between 210° and 330° clockwise?

No - No Lake Breeze Effect

Yes - Lake Breeze Effect

SUNRISE AND SUNSET AT MILWAUKEE, WISCONSIN
 CENTRAL STANDARD TIME

NO. 1322

DAY	JAN		FEB		MAR		APR		MAY		JUNE		JULY		AUG.		SEPT		OCT		NOV		DEC	
	Rise AM	Set PM	Rise AM	Set PM	Rise AM	Set PM	Rise AM	Set PM	Rise AM	Set PM	Rise AM	Set PM	Rise AM	Set PM	Rise AM	Set PM	Rise AM	Set PM	Rise AM	Set PM	Rise AM	Set PM	Rise AM	Set PM
1	7 23	4 28	7 07	5 01	6 28	5 41	5 34	6 17	4 46	6 52	4 15	7 24	4 16	7 34	4 42	7 13	5 16	6 27	5 48	5 33	6 26	4 44	7 03	4 18
2	7 23	4 29	7 06	5 05	6 26	5 42	5 33	6 19	4 45	6 53	4 15	7 24	4 17	7 34	4 43	7 12	5 17	6 25	5 50	5 32	6 27	4 43	7 04	4 18
3	7 23	4 29	7 05	5 07	6 25	5 43	5 31	6 20	4 43	6 54	4 15	7 25	4 17	7 34	4 44	7 11	5 18	6 23	5 51	5 30	6 28	4 42	7 05	4 18
4	7 23	4 30	7 04	5 09	6 23	5 44	5 29	6 21	4 42	6 55	4 14	7 26	4 18	7 35	4 45	7 09	5 19	6 22	5 52	5 28	6 29	4 43	7 06	4 13
5	7 23	4 31	7 03	5 09	6 22	5 46	5 27	6 22	4 41	6 57	4 14	7 27	4 19	7 33	4 46	7 06	5 20	6 20	5 53	5 26	6 31	4 39	7 07	4 17
6	7 23	4 32	7 01	5 11	6 20	5 47	5 26	6 23	4 39	6 58	4 13	7 27	4 19	7 33	4 47	7 07	5 21	6 18	5 54	5 25	6 32	4 39	7 08	4 17
7	7 23	4 33	7 00	5 12	6 18	5 49	5 24	6 24	4 38	6 59	4 13	7 28	4 20	7 33	4 48	7 05	5 22	6 16	5 55	5 23	6 31	4 37	7 09	4 17
8	7 23	4 34	6 59	5 13	6 16	5 49	5 22	6 25	4 37	7 00	4 13	7 29	4 20	7 32	4 49	7 04	5 23	6 15	5 56	5 21	6 35	4 36	7 10	4 17
9	7 22	4 35	6 58	5 15	6 15	5 50	5 20	6 27	4 36	7 01	4 13	7 29	4 21	7 32	4 51	7 03	5 24	6 13	5 58	5 20	6 36	4 35	7 11	4 17
10	7 22	4 37	6 56	5 16	6 13	5 52	5 19	6 28	4 34	7 02	4 12	7 30	4 22	7 31	4 52	7 01	5 25	6 11	5 59	5 18	6 37	4 33	7 12	4 17
11	7 22	4 38	6 55	5 17	6 11	5 53	5 17	6 29	4 33	7 03	4 12	7 30	4 23	7 31	4 53	7 00	5 26	6 09	6 00	5 16	6 38	4 32	7 12	4 17
12	7 21	4 39	6 54	5 19	6 10	5 54	5 15	6 30	4 32	7 04	4 12	7 31	4 23	7 30	4 54	6 59	5 28	6 08	6 01	5 15	6 40	4 31	7 13	4 17
13	7 21	4 40	6 52	5 20	6 08	5 55	5 14	6 31	4 31	7 05	4 12	7 31	4 24	7 30	4 55	6 57	5 29	6 06	6 02	5 13	6 41	4 30	7 14	4 17
14	7 21	4 41	6 51	5 21	6 05	5 56	5 12	6 33	4 30	7 06	4 12	7 32	4 25	7 29	4 56	6 56	5 30	6 04	6 03	5 11	6 42	4 29	7 15	4 18
15	7 20	4 42	6 50	5 23	6 04	5 53	5 10	6 34	4 29	7 08	4 12	7 32	4 26	7 29	4 57	6 54	5 31	6 02	6 05	5 10	6 44	4 28	7 16	4 18
16	7 20	4 43	6 48	5 24	6 03	5 59	5 09	6 35	4 28	7 09	4 12	7 33	4 27	7 28	4 58	6 53	5 32	6 00	6 06	5 08	6 45	4 28	7 16	4 18
17	7 19	4 45	6 47	5 25	6 01	6 00	5 07	6 36	4 27	7 10	4 12	7 33	4 27	7 27	4 59	6 51	5 33	5 59	6 07	5 05	6 46	4 27	7 17	4 18
18	7 19	4 46	6 45	5 27	5 59	6 01	5 06	6 37	4 26	7 11	4 12	7 33	4 28	7 27	5 00	6 50	5 34	5 57	6 03	5 05	6 47	4 26	7 18	4 19
19	7 18	4 47	6 44	5 28	5 57	6 02	5 04	6 38	4 25	7 12	4 12	7 33	4 29	7 26	5 01	6 48	5 35	5 55	6 09	5 03	6 49	4 25	7 18	4 19
20	7 17	4 48	6 42	5 29	5 55	6 04	5 02	6 39	4 24	7 13	4 12	7 34	4 30	7 25	5 03	6 47	5 36	5 53	6 11	5 02	6 50	4 24	7 19	4 19
21	7 17	4 50	6 41	5 30	5 54	6 05	5 01	6 41	4 23	7 14	4 12	7 34	4 31	7 24	5 04	6 45	5 37	5 51	6 12	5 00	6 51	4 24	7 19	4 20
22	7 16	4 51	6 39	5 32	5 52	6 06	4 59	6 42	4 22	7 15	4 13	7 34	4 32	7 23	5 05	6 43	5 38	5 50	6 13	4 58	6 52	4 23	7 20	4 20
23	7 15	4 52	6 38	5 33	5 50	6 07	4 58	6 43	4 21	7 16	4 13	7 34	4 33	7 22	5 06	6 42	5 40	5 48	6 14	4 57	6 53	4 22	7 20	4 21
24	7 14	4 54	6 36	5 34	5 48	6 09	4 56	6 44	4 21	7 17	4 13	7 34	4 34	7 21	5 07	6 40	5 41	5 46	6 16	4 55	6 55	4 22	7 21	4 22
25	7 14	4 55	6 35	5 36	5 47	6 09	4 55	6 45	4 20	7 18	4 14	7 35	4 35	7 21	5 08	6 39	5 42	5 44	6 17	4 54	6 56	4 21	7 21	4 22
26	7 13	4 56	6 33	5 37	5 45	6 11	4 53	6 46	4 19	7 18	4 14	7 35	4 36	7 20	5 09	6 37	5 43	5 42	6 18	4 53	6 57	4 20	7 22	4 23
27	7 12	4 57	6 31	5 38	5 43	6 12	4 52	6 47	4 18	7 19	4 14	7 35	4 37	7 18	5 10	6 35	5 44	5 41	6 19	4 51	6 58	4 20	7 22	4 24
28	7 11	4 59	6 30	5 39	5 41	6 13	4 50	6 49	4 18	7 20	4 15	7 35	4 38	7 17	5 11	6 34	5 45	5 39	6 21	4 50	6 59	4 19	7 22	4 24
29	7 10	5 00	6 29	5 40	5 40	6 14	4 49	6 50	4 17	7 21	4 15	7 35	4 39	7 16	5 12	6 32	5 46	5 37	6 22	4 48	7 00	4 19	7 22	4 25
30	7 09	5 01		5 38	5 38	6 15	4 47	6 51	4 17	7 22	4 16	7 34	4 40	7 15	5 13	6 30	5 47	5 35	6 23	4 47	7 02	4 19	7 23	4 26
31	7 08	5 03		5 36	5 36	6 16			4 16	7 23			4 41	7 14	5 15	6 29			6 24	4 46			7 23	4 27

Add one hour for Daylight Saving Time if and when in use.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-ENV-4A

REV. C

TITLE: Sample Acquisition, Portable
Instrument Use

DATE: MAR 10 1983

PAGE 1 of 4

REVIEWED BY

MLM

APPROVED BY

CKL

1.0 APPLICABILITY

Upon activation of the Site Access Facility (SAF), the Environmental Monitoring Teams (EM Teams) will obtain and perform environmental samples as directed by the Environmental Protection Director (EPD).

2.0 PRECAUTIONS

- 2.1 The first samples are taken at the site boundary. The EM Team taking samples will wear full-face iodine canister respirators if conditions warrant.
- 2.2 For samples taken off-site, the EM Team shall be equipped with full-face respirators. The masks shall be worn if dose projections or instrument readings indicate that the plume is in the area or has passed over the area.
- 2.3 Care must be taken during sample acquisition to employ techniques that will maintain sample integrity.
- 2.4 Probes on specific instruments shall not be interchanged without the approval of the EM Team Coordinator since the probes and instruments are calibrated for use together.
- 2.5 Calibration stickers shall be checked to see that they have not expired (they are calibrated every 6 months).
- 2.6 When control switches are turned to the battery check position, the meters should indicate within the area labeled "Batt OK" or the equivalent.
- 2.7 Check sources shall be placed in direct contact with the meter probe to determine response.

NOTE: Readings are sensitive to source positions. The readings should be within +/- 20% of the required check-source reading written on the calibration label.

- 2.8 Meter readings will indicate a direct gamma radiation intensity. The beta dose rates obtained from the difference in readings between the open and closed window positions can only be used to indicate relative beta field strength and will not quantify the beta dose rates.

2.9 Wrap meters in plastic bags to ensure that they do not become contaminated. Change the bag periodically so that any contamination buildup does not affect the meter reading.

3.0 REFERENCES

3.1 Instrument Operating Procedures

RC-HP 41A - PIC-6A

RC-HP 41G - E-520, E-530, and E-530N

RC-HP 41I - CUTIE PIE

4.0 IMMEDIATE ACTIONS

4.1 E-530 - HP-190 Probe

4.1.1 Multiply the meter scale indication by the appropriate multiplication factor to obtain the proper count rate. Use the CPM range only.

4.1.2 Record readings on Form ENV-4A.

(NOTE: Fluctuations of the meter are normal and are caused by the random nature of radioactive decay. When meter readings reach or surpass 3/4 of full scale, shift to the next higher multiplication factor to obtain an accurate reading.)

4.2 PRM-7

4.2.1 Set response time to FAST (2 second full-scale response).

4.2.2 Set meter on highest scale (0-5 mR/hr).

4.2.3 Reduce multiplication factor until an onscale reading is obtained.

4.2.4 Reset response time to SLOW to verify readings (10 second response).

4.2.5 Record readings on Form ENV-4A.

NOTE: Normal background in the EPZ is 6 to 9 uR/hr.

4.3 PIC-6A

4.3.1 Set the meter switch to the appropriate range (in mR/hr or R/hr).
Take radiation reading with the beta shield open and shut.

(NOTE: Shield is located on the bottom of the instrument.)

4.3.2 Record readings on Form ENV-4A.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-ENV-5C

REV. C

TITLE: Sam II Operation

DATE: MAR 10 1983

PAGE 1 of 6

REVIEWED BY

M. L. Mankos / D. J. [unclear]

APPROVED BY

C. Suoma

1.0 APPLICABILITY

Upon activation of the Site Access Facility (SAF), the SAM II counting system shall be used for counting silver zeolite cartridges for I-131.

2.0 PRECAUTIONS

- 2.1 The SAM II should not be operated outside the temperature band from 0°C to 60°C.
- 2.2 Record any deviations from this procedure in the applicable remark section of ENV-5C.

3.0 REFERENCES

- 3.1 RC-HP-42U
- 3.2 FEMA REP-2, September 1980, Guidance On Emergency Radiation Measurement Systems
- 3.3 Eberline Technical Manual for Stabilized Assay Meter, Model SAM II

4.0 OPERATING INSTRUCTIONS

- 4.1 If unit is completely disconnected:
- 4.1.1 Set the power switch on the rear of the analyzer to the OFF position.
- 4.1.2 Close door to the detector housing.
- 4.1.3 ENSure Hi volt adjust is set to zero.
- 4.1.4 Connect the black signal cable from detector to the SAM II.
- 4.1.5 Place the RD-22 detector into the lead shield holder.
- 4.1.6 Connect the gray electrical cable to a 115 VAC 60 Hz power supply.

NOTE: For 12 volt battery operation, connect one end of the gray cable in the battery pack to the rear of the analyzer and the other end into either the battery pack or a vehicle cigarette lighter.

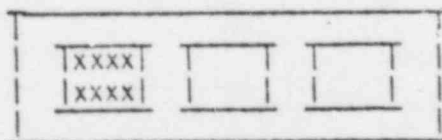
4.2 If the unit has already been connected:

- 4.2.1 Turn stabilizer switch located on the rear of the analyzer to the ON position.
- 4.2.2 Turn the power switch located on the rear of the analyzer to ON.
- 4.2.3 Turn the H.V. Adjust knob on the front of the analyzer to 8.45 for the RD-22 detector.
- 4.2.4 Set the display switch on the front panel to ON.
- 4.2.5 Set Channel (1) Threshold and Window controls as per the latest calibration (SAM II - blue binder).
 - a. +/-OFF/- switch to +
 - b. in/out switch to IN
- 4.2.6 Set Channel 2 controls as follows:
 - a. Window - 0.0
 - b. Threshold - 0.0
 - c. +/-OFF/- switch to OFF
 - d. IN/OUT switch to OUT position
- 4.2.7 Set the Timed/Stop/Man switch to Timed.

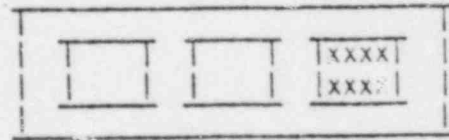
5.0 COUNTING TECHNIQUES

5.1 Background

- 5.1.1 Insure unit is set up as per step 4.0.
- 5.1.2 Set time controls for a (10) minute count as follows:



1 2 5

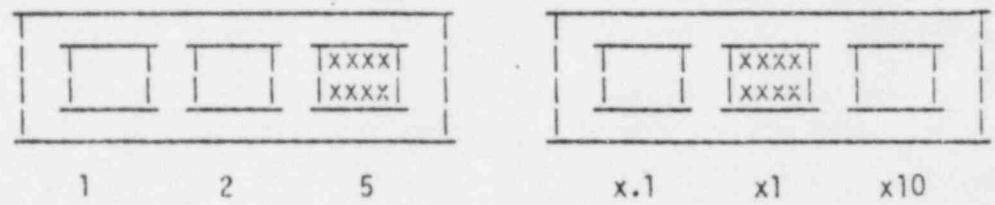


x.1 x1 x10

- 5.1.3 Press Reset/Start button to start the count.
- 5.1.4 After completion of count record total counts and time on on Form ENV-5C.
- 5.1.5 Determine background count rate (CPM). Record on Form ENV-5C.

5.2 Efficiency Check

- 5.2.1 Get source (#0355-RS) BA-133 from source locker.
- 5.2.2 Place the source under the detector. Insure the markings are facing up.
- 5.2.3 Set time controls for a (5) minute count as follows:



- 5.2.4 Press Reset/Start button to start the count.
- 5.2.5 After completion of count, record the total counts on Form ENV-5C.
- 5.2.6 Determine source count rate (CPM). Record on Form ENV-5C.
- 5.2.7 Efficiency factor calculation:

- a. Because the SAM-2 calibration is being done with a BA-133 source and the SAM-2 will be used to count I-131, a correction factor must be taken into account.
- b. To compensate for the difference in Gamma percent abundance of BA-133 and I-131 use the following formula:

Ba-133	356 KEV	69%
I -131	365 KEV	82%

$\frac{.82}{.69} = 1.188$ correction factor

c. The formula for figuring the efficiency factor is:

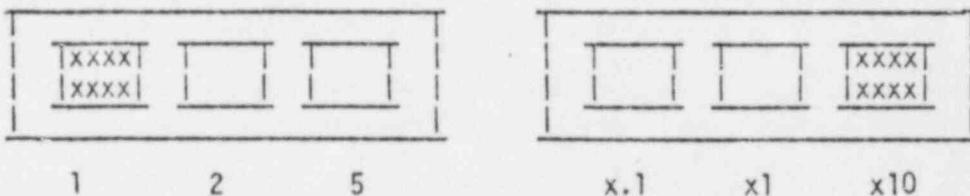
$$\frac{(\text{known check source DPM}) (1.19)}{(\text{NET check source CPM})} = \text{Efficiency factor}$$

1. known DPM - taken from the label of the source.
2. 1.19 - correction factor
3. NET CPM - from Form ENV-5C step 5.2.6.

5.2.5 Put source #0355-RS back into the source locker.

5.3 Sample Counting

5.3.1 Set time controls for a (10) minute count as follows:



5.3.2 Record the following information on Form ENV-5C for each sample:

- a. Sample location: By index number of location listed on Table ENV-3A or as listed on the sample label.
- b. Date and time taken.
- c. Sample Volume in cc's.

5.3.3 Place sample into the leadshield under the detector.

5.3.4 Press Reset/Start button.

5.3.5 After completion of count record on ENV-5C.

5.3.6 Determine sample count rate. Record on ENV-5C.

6.0 ACTIVITY CALCULATIONS

6.1 Subtract background CPM from sample gross CPM to get sample net CPM.
Record on Form ENV-5C.

NOTE: Any sample net CPM > 1000 inform E.P.D. immediately.

6.2 Use the following formula:

$$\frac{(\text{Sample Net CPM}) (\text{Eff. factor}) 4.5 \times 10^7}{\text{Sample volume in cc's}} = \text{I-131 Activity in } \mu\text{Ci/cc}$$

6.3 Record this value on ENV-5C.

7.0 INSTRUMENT SHUT-DOWN

- 7.1 Remove last sample from detector.
- 7.2 Set display switch to OFF.
- 7.3 Lower the H.V. adjust knob to zero.
- 7.4 Switch power OFF.
- 7.5 Disconnect the black signal cable.
- 7.6 Unplug the gray power cable.

REVIEWED BY

M. L. ...

APPROVED BY

C. ...

1.0 APPLICABILITY

The Reuter/Stokes is used to monitor natural background radiation levels to establish a data base of normal radiation levels. It can also be used for detecting low level step increases in radiation levels.

2.0 PRECAUTIONS

- 2.1 This unit should not be operated on the A.C. line voltage with the battery pack (the D.C. power source) removed or permanent damage will result.
- 2.2 Ensure that the ELECTROMETER and MODE switches are in their "OFF" position before connecting the cable between the sensor head enclosure and the control housing enclosure.
- 2.3 The ionization chamber, located within the sensor head enclosure, is easily saturated (one [1] million counts).

3.0 START UP

- 3.1 Attach the tripod to the sensor head enclosure.
 - 3.1.1 Insert the metal head, located on the top of the tripod, into the holes located on the bottom of the sensor head enclosure.
 - 3.1.2 Tighten the thumbscrew located on the tripod.
 - 3.1.3 Extend and lock into place the tripod legs by loosening, settling and then tightening the knurled rings on the tripod legs.

NOTE: Adjust so that the sensor head enclosure is approximately one (1) meter above the ground and is level.

- 3.2 Position the control housing enclosure at least 10 feet from the sensor head enclosure, to eliminate electromagnetic interference. Open the control housing enclosure cover.
- 3.3 Ensure there is adequate chart paper in the strip-chart recorder (see Section 6.0 for chart paper replacement).
- 3.4 Connect the cable between the sensor head enclosure and the control housing enclosure.

NOTE: Observe precaution 2.2.

3.5 Connect the power cord to an AC (115 VAC, 60 Hz) if available. If not, perform a battery check (see Section 4.0).

3.6 Place the MODE switch in its "AC" position (in its "BATT" position if using the battery power supply).

NOTE: Observe precaution 2.1.

3.7 Place the ELECTROMETER switch in its "zero" position and wait 60 seconds. Then turn the ELECTROMETER switch to the "read" position.

NOTE: This allows the transient currents to die out. No signal should appear on the chart recorder after approximately 10 seconds.

3.8 Place the DISPLAY/RECORDER switch to the "ON" position.

3.9 Depress the PUSH-TO-READ button which is directly below the DIGITAL DISPLAY (digits will remain lighted for approximately 30 seconds). Note the average $\mu\text{R/hr}$ displayed on the DIGITAL DISPLAY.

3.10 Record the following information on the chart paper in the STRIP-CHART RECORDER:

a. Date _____

b. Time Started _____

c. Monitoring Location _____

d. Reading obtained from Section 3.9 above (in $\mu\text{R/hr}$) _____

3.11 Place the DISPLAY/RECORDER switch to the "OFF" position.

3.12 Depress the reset bar on the MECHANICAL COUNTER so that all "zeros" appear.

3.13 Close and lock the control housing enclosure cover.

4.0 BATTERY CHECK

4.1 300V Dry Cell

a. Place the DISPLAY/RECORDER switch to the "ON" position.

b. Place the MODE switch in the "BATT" position and the ELECTROMETER switch in the "ZERO" position.

c. Simultaneously depress the PUSH-TO-READ button and the button marked 300V.

- d. The battery condition will be displayed on the DIGITAL DISPLAY as the percent of charge remaining.

NOTE: There is essentially no drain upon the battery, but deterioration may occur in time as indicated by the manufacturers shelf-life specifications. This battery should be replaced annually.

- e. Place the ELECTROMETER switch and then the MODE switch to the "OFF" position.
- f. Place the DISPLAY/RECORDER switch to the "OFF" position.
- 4.2 Three Lead-Acid Batteries
- a. Depress the buttons marked "-14V", "+14V" and "+12V" and note needle movement on the voltmeters directly above each button.
- b. If the needle for each voltmeter is near or in the shaded area on the left, recharge the unit prior to operation on the battery power supply (see Section 5.0).

5.0 RECHARGING BATTERIES

- 5.1 Connect the control housing enclosure to a 115 VAC, 60 Hz power supply.
- 5.2 Place MODE switch to "CHARGE" position.

NOTE: The L.E.D.'s above the voltmeters will come on until the batteries are fully charged, then they will go off. The time to fully charge is approximately 14-16 hours.

6.0 STRIP-CHART RECORDER, CHART PAPER REPLACEMENT

- 6.1 Ensure RSS-111 is in a shut-down condition as per Section 8.0.
- 6.2 Obtain a new roll of chart paper (GULTON CHART PAPER - STYLE B6930).
- 6.3 Loosen the thumbscrew on upper left hand corner of the recorder front and open the unit.
- 6.4 Pull down to open the plastic retaining plate on the right side of the unit.
- 6.5 Disengage the two metal latch levers which hold the supply and take up reels in place.

NOTE: The take-up reel is the one nearest to the front of the unit.

- 6.6 Remove the used chart paper roll and place it in its box or a small plastic bag, and send it to the Health Physics Supervisor at the Kewaunee Nuclear Plant.

NOTE: Save the old cardboard sleeve from the supply reel and put it on the take-up reel for the new chart roll to wind up on.

- 6.7 Ensure that the following data is written or sent with the old roll:

- a. Date _____
- b. Time Stopped _____
- c. Monitoring Location _____
- d. $\mu\text{R/hr}$ Reading at time old chart paper is removed _____
- e. Total μR accumulated on the mechanical counter _____

- 6.8 Put a new chart paper roll on the supply reel and unroll about 6".

- 6.9 Work the paper and the supply reel into place with the chart paper holes to the left and the marked side of the paper facing toward the front of the unit.

- 6.10 The chart paper has time markings on it. Advance the paper to the proper time (so that the recording needle lines up with the time desired).

- 6.11 Attach the free end of the chart paper to the take-up reel (a small piece of tape is useful) and put the take-up reel into place.

- 6.12 Engage the two latching bars.

- 6.13 Shut the plastic retainer plate.

- 6.14 Close the unit and tighten the thumbscrew.

NOTE: After the REUTER-STOKES is started, observe the recorder to ensure the paper is advancing properly.

7.0 DETERMINING THE RADIATION LEVEL OFF STRIP-CHART RECORDER

- 7.1 The autoranging chart recorder sensitivity is electronically switched over two ranges; the low range is 50 $\mu\text{R/hr}$ full scale and the high range is 500 $\mu\text{R/hr}$ full scale. For reasons of power consumption, no means of recording the state of the range-changer (high or low) are provided. However, there are two simple methods of identifying in which range the recorder trace lies.

- 7.2 First Method: The high range has a narrow dense trace and the low range has a wider spread-out trace.
- 7.3 Second Method: There will be a distinct up-scale and down-scale spike denoting each shift in scale.
- 8.0 SHUT DOWN
- 8.1 Open the control housing enclosure if not already done.
- 8.2 Place the DISPLAY/RECORDER switch in the "ON" position.
- 8.3 Depress the PUSH-TO-READ button. Note and record the $\mu\text{R/hr}$ reading (for Section 6.7)
- 8.4 Note and record the total dose from the MECHANICAL COUNTER (for Section 6.7).
- 8.5 Place the DISPLAY/RECORDER switch in the "OFF" position.
- 8.6 Place the ELECTROMETER switch in the "OFF" position.
- 8.7 Place the MODE switch in the "OFF" position.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-ENV-6A REV. A

TITLE: Relocation of Site Access Facility
(for habitability reasons)

DATE: MAR 10 1983

PAGE 1 of 2

REVIEWED BY

MR. Muehle / TDH/cm

APPROVED BY

Ch. Surma

1.0 APPLICABILITY

This procedure applies to relocating the Site Access Facility (SAF) upon exceeding radiation limits as stated in EP-RET-4C, Site Radiological Monitoring, or at the discretion of the Radiological Protection Director and Environmental Protection Director.

2.0 PRECAUTIONS

- 2.1 Ensure all applicable documents in the SAF are brought to the new location (log books, Dosimetry Issue Records, etc.).
- 2.2 Ensure all personnel assigned to the SAF are evacuated upon determination that the SAF is not habitable.
- 2.3 If habitability limits have not been exceeded and relocation of environmental monitoring team counting facilities is required, refer to EP-ENV-6B, SAF Environmental Sample Analysis Relocation.
- 2.4 If habitability limits have been exceeded, perform this procedure and EP-ENV-6B, SAF Environmental Sample Analysis Relocation, concurrently.

3.0 REFERENCES

- 3.1 EP-RET-4C, Site Radiological Monitoring
- 3.2 Kewaunee Nuclear Power Plant Emergency Plan

4.0 INSTRUCTIONS

4.1 Site Emergency Team

- 4.1.1 Confirm with the Radiological Protection Director (RPD) and Environmental Protection Director (EPD) that the SAF habitability limits have been exceeded.
- 4.1.2 Notify the Security Director that the SAF habitability limits have been exceeded.

4.2 Security Director

- 4.2.1 Contact the EPD to determine whether the SAF should be relocated to either the north or south roadblocks on State Highway 42.
- 4.2.2 Direct Security Force personnel to collect access records and personnel dosimetry and to proceed to the location determined in 4.2.1.
- 4.2.3 Establish an access point to the site at the selected location.
- 4.2.4 Inform the Emergency Director via the radio of the position of the relocated SAF and request that the new location be announced on the Gai-Tronics.
- 4.2.5 Perform an accountability of Site Access Facility personnel after relocation is complete.

4.3 Security Force

- 4.3.1 Collect access records and personnel dosimetry.
- 4.3.2 Direct personnel at the SAF to proceed to the determined location of the relocated SAF.
- 4.3.3 Establish an access point to the site at the selected location.
- 4.3.4 Establish personnel dosimetry issuance per EP-SEC-4, Dosimetry Issue at SAF.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-ENV-7 REV. B

TITLE: Site Access Facility Communications

DATE: MAR 10 1993

PAGE 1 of 3

REVIEWED BY

M. L. March / *DP*

APPROVED BY

Ch. Luoma

1.0 PURPOSE

Describes the communication system and equipment utilized in the Site Access Facility during an emergency.

2.0 APPLICABILITY

This procedure will apply to any declared emergency as defined in EP-AD-2, Emergency Classification.

3.0 REFERENCES

- 3.1 Kewaunee Nuclear Power Plant Emergency Plan.
- 3.2 EP-AD-17, Communications and Documentation.

4.0 REQUIREMENTS

4.1 PBX Telephone System Extension Lines (tan receivers)

- 4.1.1 One extension telephone ties into the plant PBX Telephone System.
- 4.1.2 Provides communication to the Control Room, Emergency Operations Facility (EOF), Radiological Analysis Facility (RAF), Radiation Protection Office (RPO), Technical Support Center (TSC), Operational Support Facility (OSF), WPS Lakeshore Division Office and WPS Corporate Headquarters by dialing the designated three digit extension number for each location.

4.2 Ringdown Circuits (blue telephone with call lights)

- 4.2.1 Two ringdown circuit telephones, each of which provides direct line communications to either the EOF or TSC. Each telephone will be designated as to which location it contacts.
- 4.2.2 Designed in such a manner that taking the receiver off the hook will cause the telephone at the receiving end to ring. Call lights are provided as a backup method to the telephone ringing to aid in determining which telephone needs to be answered.

4.3 Commercial Telephone Lines

- 4.3.1 Provide for callbacks on initial notifications for personnel required to man the SAF.
- 4.3.2 Provide for outside lines and for communications to other emergency response facilities.

4.4 Radio

- 4.4.1 A radio base station is located in the Control Room with remote console stations in the SAF, EOF, and RPO. This provides communications for the Radiation Emergency Teams and Environmental Monitoring Teams. The capabilities exist for relocating the remote console station in the RPO to the RAF.
- 4.4.2 The base and remote console stations are connected via a common antenna lead and can be used as an intercom by depressing the appropriate button on the station. This allows for communications between stations without radio transmission.

5.0 RESPONSIBILITIES

5.1 Environmental Monitoring Team Coordinator

- 5.1.1 Ensure communication systems are manned by a designated individual or yourself, upon activation of the SAF.
- 5.1.2 Ensure initial checks of communications systems are completed in accordance with EP-ENV-2, Steps 4.1.3 and 4.1.4, and status of checks are reported.

5.2 SAF Communicator

- 5.2.1 Perform initial checks of communication systems as directed by the Environmental Monitoring Team Coordinator.
- 5.2.2 Stand by to receive calls from other emergency response facilities or individuals calling back for notification verification, record the appropriate information and relay information to the Environmental Monitoring Team Coordinator.

Form ENV-7.1
Site Access Facility Communications

PBX Extension Lines

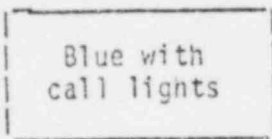


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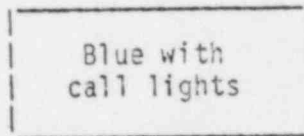


Ext.

Ringdown Circuits



↓
V
EOF



↓
V
TSC

WISCONSIN PUBLIC SERVICE CORPORATION

Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. FP-OSF-4

REV. B

TITLE: Operational Support Facility
Communications

DATE: MAR 10 1983

PAGE 1 of 3

REVIEWED BY

R. Lange / m & m

APPROVED BY

MAT

1.0 PURPOSE

Describes the communication system and equipment utilized in the Operational Support Facility during an emergency.

2.0 APPLICABILITY

This procedure will apply to any declared emergency as defined in EP-AD-2, Emergency Class Determination.

3.0 REFERENCES

3.1 Kewaunee Nuclear Power Plant Emergency Plan

3.2 EP-AD-17, Communications

4.0 REQUIREMENTS

4.1 PBX Telephone System Extension Lines (tan receivers)

4.1.1 Two extension telephones tie into the plant PBX Telephone System.

4.1.2 Provides communication to the Control Room, Radiological Analysis Facility (RAF), Radiation Protection Office (RPO), Technical Support Center (TSC), Site Access Facility (SAF), Emergency Operations Facility (EOF)/ WPS Lakeshore Division Office, and WPS Corporate Headquarters by dialing the designated three digit extension number of each location.

4.2 Ringdown Circuits (blue telephones with call lights)

4.2.1 Four ringdown circuit telephones, each of which provides direct line communications to either the Control Room, TSC, RAF or EOF. Each telephone will be designated as to which location it contacts.

4.2.2 Designed in such a manner that taking the receiver off the hook will cause the telephone at the receiving end to ring. Call lights are provided as a backup method to the telephone ringing to aid in determining which telephone needs to be answered.

NO.	EP-OSF-4	
TITLE:	Operational Support Facility Communications	
DATE:	MAR 10 1983	PAGE 2 of 3

- 4.3 Gai-Tronics Paging System (gray telephone with gray receiver)
- 4.3.1 Provides means of broadcasting emergency alarms and announcements throughout the plant.
 - 4.3.2 Provides a semi-private message system which can be used throughout the plant, except in the SAF.
 - 4.3.3 Designed with five available circuits. In order to operate, pick up the hand piece, select one of the five circuits, listen to ensure a clear circuit, depress button and announce slowly and clearly the name of the party you want to contact and which line he should use. Release button and wait for party to pick up that line.

5.0 RESPONSIBILITIES

5.1 Support Activities Director

- 5.1.1 Ensure communication systems are manned upon activation of the OSF.
- 5.1.2 Ensure initial checks of communication systems are completed in accordance with EP-OSF-2, OSF Activation.

5.2 OSF Communicator

- 5.2.1 Perform initial checks of communication system as directed by the SAD.
- 5.2.2 Perform notifications of support personnel, as necessary.
- 5.2.3 Stand by to receive calls from other emergency response facilities, record the appropriate information, and relay information to the SAD.

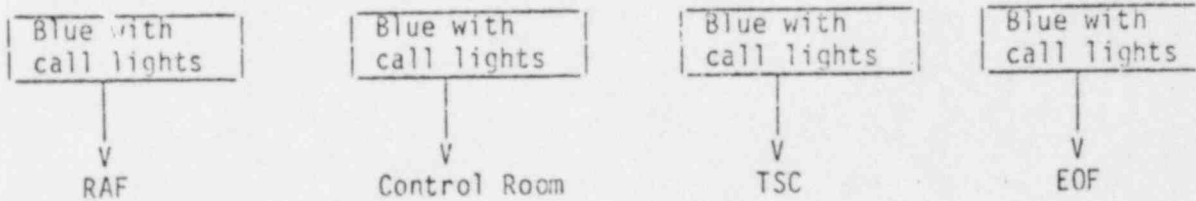
OPERATIONAL SUPPORT FACILITY COMMUNICATIONS

Operational Support Facility

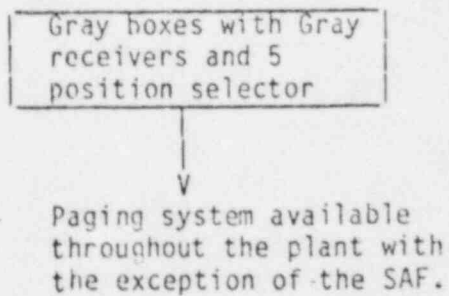
PBX Extension Lines



Ringdown Circuits



Gai-tronics Paging System



WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-RET-1 REV. C

TITLE: Radiation Emergency
Team Organization

DATE: MAR 10 1983

PAGE 1 of 2

REVIEWED BY

John Richard Williams

APPROVED BY

DRH

1.0 PURPOSE

This procedure establishes the emergency organization reporting to the Radiological Protection Director (RPD), and delegates their responsibilities and duties.

2.0 APPLICABILITY

The Radiation Emergency Teams (RET) will be activated during an Alert, Site Emergency or General Emergency. The Teams can also be activated for other situations at the discretion of the Radiological Protection Director or Emergency Director.

3.0 REFERENCES

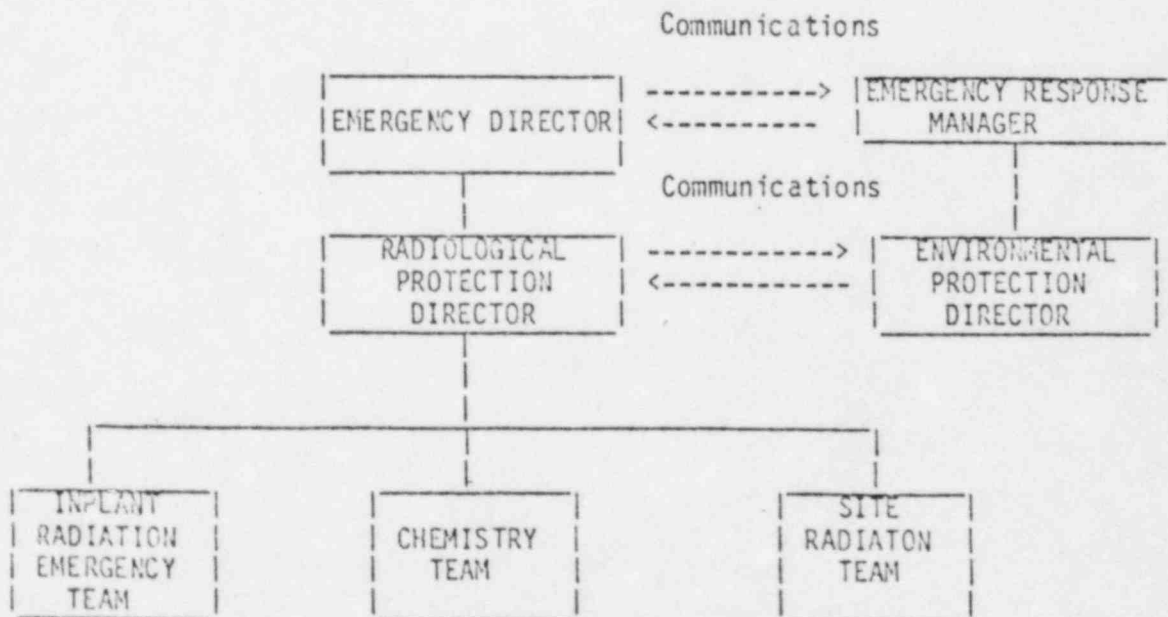
3.1 EP-AD-1, Plant Emergency Organization

4.0 RESPONSIBILITIES

- 4.1 The Radiological Protection Director is responsible for assessment of radiological hazards as stated in EP-AD-1, Plant Emergency Organization.
- 4.2 The Inplant RET is responsible for maintaining radiological controls in the plant and assessment of radiological conditions within the Protected Area. They are also responsible for determining gaseous effluent release rates and initial predictions of plume deposition.
- 4.3 The Emergency Chemistry Team is responsible for assessing plant chemistry conditions to ensure adequate shutdown margin, to determine liquid effluent release rates, and to evaluate core damage.
- 4.4 The Site RET responsible for maintaining radiological controls outside the Protected Area but within the site boundary. They are responsible for radiological control at the Site Access Facility (SAF).
- 4.5 Until activation of the EOF, and the Environmental Protection Director (EPD) is designated, the RPD is responsible for protective action evaluations.

5.0 REQUIREMENTS

- 5.1 All inplant and site radiological conditions will be reported to the Radiological Protection Director.
- 5.2 The Radiological Protection Director will keep the Emergency Director informed of any change in radiological conditions or any abnormal indications which could lead to a change in radiological conditions or release rates.
- 5.3 Until activation of the EOF and Environmental Monitoring Teams, the Radiological Protection Director will coordinate acquisition of environmental monitoring data with the State of Wisconsin Radiological Coordinator. This duty will be assumed by the Environmental Protection Director when he reports to the EOF.
- 5.4 The RPD shall monitor plant effluent release rates and evaluate potential off-site consequences in order to make recommendations for protective actions. The RPD will make protective action recommendations to the Emergency Director. After activation of the EOF, protective action recommendations will be made by the Emergency Response Manager from evaluations made by the EPD and his staff.



WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-RET-2 REV. C

TITLE: Inplant Radiation Emergency Team

DATE: MAR 10 1983 PAGE 1 of 4

REVIEWED BY

John Reichert

APPROVED BY

DWT

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 Control Room for:
 - a. Any abnormal area radiation monitor readings
 - b. 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.

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NO. EP-RET-2

TITLE: Inplant Radiation Emergency Test

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

WISCONSIN PUBLIC SERVICE CORPORATION
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NO. EP-RET-2

TITLE: Inplant Radiation Emergency Team

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- 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 Decontamination of respiratory equipment, 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 Hazelton Laboratories for sample analysis if requested.

WISCONSIN PUBLIC SERVICE CORPORATION

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EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-RET-2A

REV. C

TITLE: RPO/RAF Activation

DATE: MAR 10 1983

PAGE 1 of 4

REVIEWED BY

John Richard Williams

APPROVED BY

JAT

1.0 APPLICABILITY

This procedure will be utilized by the Inplant Radiation Emergency Team 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

- 2.1 Inplant RET is normally based in the Radiation Protection Office (RPO).
- 2.2 If the RPO becomes uninhabitable (area radiation 50 mr/hr.), the team shall change its base of operations to the Radiological Analysis Facility (RAF).

3.0 REFERENCES

- 3.1 EP-RET-2, Inplant Radiation Emergency Team

4.0 INSTRUCTIONS

- 4.1 All Inplant RET members shall assemble at the RPO.
- 4.2 Check controlled area sign-in sheets to determine persons inside the controlled area.
- 4.3 Perform radiation surveys in the area of the RPO. Perform airborne survey if a stack release is in progress.
- 4.4 Test the REMOTE CONSOLE AND walkie-talkie operations.
- 4.5 Perform radiation and airborne activity surveys in the 642' Elevation and RAF Count Rooms and ensure that the counting equipment is usable.
- 4.6 Record names and phone numbers of the persons filling the positions in Form RET-2A.1.
- 4.7 If the emergency occurs on a back shift, the Radiation Technologist on shift shall report to the RPO or RAF and control radiological responses until relieved by the incoming Inplant RET members and the RPD.

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NO.	EP-RET-2A	
TITLE:	RPO/RAF Activation	
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4.7 Most air samples taken during the initial stages of an emergency should be labeled, bagged and stored for possible recounting at a later date. Ensure that the following information is provided for each sample:

- a.) date and time
- b.) location
- c.) name of individual sampling
- d.) instrument type and serial no.
- e.) duration of the sample
- f.) air sampler flow rate
- g.) name of individual counting the sample

See Form RET-2A.2.

FORM RET-2A.1

<u>POSITION</u>	<u>LOCATION</u>	<u>FILLED BY</u>
Shift Supervisor	Control Room	_____
STA	Control Room	_____
Emergency Director	TSC	_____
Technical Support Center Direct.	TSC	_____
Radiological Protection Direct.	RPO/RAF	_____
Support Activities Director	OSF (Admin Bldg Conf Room)	_____
Security Director	Security Bldg	_____
Emergency Response Manager	EOF	_____
Environmental Protection Direct.	EOF	_____
Environmental Monitoring Team Coordinator	SAF	_____

FORM RET-2A.2

EMERGENCY SAMPLE WORKSHEET

Sample Number _____

Sample Location _____

Sample Date and Time _____

Name of Person Doing Sampling _____

Equipment Used - Type and Serial No. _____

Duration of Sample _____

Air Sampler Flow Rate _____

WISCONSIN PUBLIC SERVICE CORPORATION

Kewaunee Nuclear Power Plant

EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-RET-2D

REV. B

TITLE Emergency Radiation Entry,
Controls and Implementation

DATE: MAR 10 1983

PAGE 1 of 5

REVIEWED BY

John Richard / [Signature]

APPROVED BY

[Signature]

1.0 APPLICABILITY

This procedure shall be used for entering areas that have become radioactively contaminated and/or have increased or unknown radiation levels during emergency repair/operation or search and rescue operations.

2.0 PRECAUTIONS

- 2.1 Personnel engaged in either emergency repair/operation or search and rescue operations should keep in mind the concepts of time, distance and shielding to minimize radiation exposure as much as possible.
- 2.2 An individual will not be allowed to travel into or through an unknown high radiation area unless he is within the sight of a buddy and is carrying a portable high range doserate meter.
- 2.3 All personnel subjected to radiation doses greater than 10 CFR Part 20 limits will participate on a voluntary basis only (Part 20 limits: 3 REM to the whole body, 18.75 Rem to the extremities, and 7.5 Rem to the skin of the whole body).
- 2.4 For purposes of emergency repair/operation, volunteers should not receive a dose exceeding 25 Rem to the whole body.
- 2.5 For purposes of life-saving operation, volunteers should not receive a dose exceeding 75 Rem to the whole body.
- 2.6 Any exposure to radiation in excess of 10 CFR 20 limits shall be authorized by the Radiological Protection director (RPD) with the concurrence of the Emergency Director (ED). (See EP-AD-11)
- 2.7 All completed radiation surveys of areas to be traveled by emergency repair/operations or search and rescue personnel shall be made available to the teams by the RPD.
- 2.8 Plant shielding maps and critical equipment location maps (Appendix R) should be reviewed for the determination of access pathway.
- 2.9 An Emergency Radiation Work Permit (ERWP) shall be completed prior to all entries, except as allowed by EP-AD-11.
- 2.10 Portable radios should be issued to each team prior to entries.
- 2.11 Iodine blocking agents are available for use when Radioiodine airborne concentrations and projected exposure durations are such that a possible thyroid dose could occur. (See EP-AD-18).

3.0 REFERENCES

- 3.1 Kewaunee Nuclear Power Plant Emergency Plan
- 3.2 EP-AD-11, Emergency Radiation Controls
- 3.3 EPA-520/1-75-001, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents (June 1980).
- 3.4 Code of Federal Regulations, 10CFR Part 20.
- 3.5 Radiation Protection Manual and Health Physics Procedure Manual, Kewaunee Nuclear Power Plant.

4.0 INSTRUCTIONS

4.1 In-Plant Radiation Emergency Team

- 4.1.1 Ensure that proper instrumentation, respiratory protection, clothing and dosimetry are used in compliance with the Emergency Radiation Work Permits (ERWP) (see EP-AD-11).
- 4.1.2 Determine each team member's allowable dose and calculate the stay time associated with each dose. Review these calculations with the Entry Team Coordinator and record on ERWP.
- 4.1.3 Obtain the approval of the RPD (and concurrence of the ED) for tasks that may or will require exposure of team member(s) in excess of 10 CFR 20 limits. (See EP-AD-11)
- 4.1.4 Remove from emergency duty those personnel who have exceeded 10 CFR 20 limits.

NOTE: Emergency Exposure levels can be increased. Refer to EP-AD-11.
- 4.1.5 If the whole body dose of a volunteer team member exceeds 25 REM, or his dose is uncertain or suspected of exceeding 25 Rem, he should be referred for appropriate medical care.

4.2 Entry Team Coordinator

4.2.1 Review with the Radiological Protection Director the protective clothing

and respiratory protection equipment necessary for team actions.

4.2.2 Arrange in advance for any anticipated necessary reliefs for team members.

4.2.3 Select the special entry team members according to the following criteria:

- a. Team members should be knowledgeable of the plant layout.
- b. Team members should be knowledgeable of Health Physics procedures.
- c. At least one member of the team should be a Radiation Technologist when entering areas where radiological conditions are adverse or unknown.

4.2.4 Brief the special entry personnel on the following:

- a. Purpose of the mission
- b. Dosimetry
- c. Protective clothing
- d. Survey Instruments
- e. Respiratory Protection Equipment
- f. Communication Equipment
- g. Planned Route
- h. Expected Conditions
- i. Equipment
- j. Dose and Stay Time
- k. Abort Instructions

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4.2.5 Define the following roles to the respective personnel:

- a. Entry Team Coordinator
- b. Accumulated exposure and radiological conditions monitor
- c. Equipment operator and/or repairman
- d. Communicator

4.2.6 During the team entry, monitor the radio, log radiation levels and compare the readings to those expected. Maintain a log of the time and estimate the doses they are receiving Concurrently, log any and all important events, their location and time of occurrence on Form RET-2D.

4.2.7 Report significant data to the RPD.

4.3 Team Members

- 4.3.1 Report to a location assigned by the Entry Team Coordinator for direction and duties.
- 4.3.2 Obtain the appropriate dosimetry, protective clothing, and respiratory protection equipment as specified on the ERWP.
- 4.3.3 Acknowledge the designation assigned to your team by the Entry Team Coordinator.
- 4.3.4 Check equipment for physical damage and perform operational checks.
- 4.3.5 Ensure that proper directions have been obtained and are understood prior to entry.
- 4.3.6 Proceed to designated area, conduct and record on Form RET-2D radiation field measurements in transit and maintain continuous radio contact with Entry Team Coordinator.
- 4.3.7 Use the buddy system as necessary during the entire operation.
- 4.3.8 Perform the required operation or maintenance.

NOTE: In the event that physical or radiological conditions are encountered that are unexpected or change or impede completion of task, abort mission as instructed by Entry Team Coordinator.

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EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-RET-2E REV. A
TITLE: Handling of Injured Personnel

DATE: MAR 10 1983

PAGE 1 of 3

REVIEWED BY

John Richard [Signature]

APPROVED BY

[Signature]

1.0 APPLICABILITY

This procedure will be placed into effect when notified of personnel injuries.

2.0 PRECAUTIONS

- 2.1 This procedure must be followed in conjunction with ACD 15.2 Occupation Injuries or Vehicle Accidents, during normal operations. EP-AD-16 Occupation Injuries or Vehicle Accidents will be used during emergencies.
- 2.2 Do not attempt to move the person immediately unless he is in a life threatening environment.
- 2.3 Life saving efforts (e.g. CPR, control of profuse bleeding) will take precedence over immediate decontamination measures.
- 2.4 All cuts or abrasions that could require sutures or contain foreign material should be treated as a Medical Attention Injury.
- 2.5 Burns where skin damage is evident (possible 2nd degree) should be treated as a Medical Attention Injury.
- 2.6 Particulate matter in the eye which cannot be removed by irrigation should be treated as a Medical Attention Injury.
- 2.7 Persons with open wounds will not be allowed access to the Controlled Area until the wound has sealed.
- 2.8 When transporting a contaminated person to the Two Rivers Hospital for medical attention the RET member shall bring with him the appropriate radiation survey instruments.

3.0 REFERENCES

- 3.1 EP-AD-16, Personnel Injury or Vehicle Accidents
- 3.2 EP-RET-2F, Personnel Decontamination
- 3.3 EP-RET-8, Contamination Control at the Two Rivers Community Hospital

4.0 INSTRUCTIONS

4.1 Minor Injury - Clean Area

- 4.1.1 Treat the injury using standard first aid practices.
- 4.1.2 Request the person inform his supervisor of the injury so a Minor Injury Form can be completed.
- 4.1.3 Instruct the person to see his family physician if complications develop.

4.2 Minor Injury - Controlled Area

- 4.2.1 Treat the injury using standard first aid practices.
- 4.2.2 Check the wound for contamination by counting sterile pads used to clean the wound or by direct survey. Personal decontamination should be performed per EP-RET-2F.
- 4.2.3 For puncture wounds, promote some bleeding to irrigate the wound. Monitor the pads used to clean the wound for contamination.
- 4.2.4 Inform the person's supervisor of the nature of the injury as it may restrict him from Controlled Area work.

4.3 Major Injury - Clean Area

- 4.3.1 Notify the Shift Supervisor immediately.
- 4.3.2 Do not attempt to move the person unless in a life-threatening environment (fire, smoke, toxic gas, etc.).
- 4.3.3 Administer emergency first aid and determine the nature and extent of injury.
- 4.3.4 A plant staff employee shall accompany the injured person to the medical facility.

4.4 Major Injury - Controlled Area

- 4.4.1 Notify the Shift Supervisor immediately.

WISCONSIN PUBLIC SERVICE CORPORATION
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EMERGENCY PLAN IMPLEMENTING PROCEDURE

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TITLE: Handling of Injured Personnel

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- 4.4.2 Do not attempt to move the injured unless in a life threatening environment (fire, smoke, toxic gas, high radiation, or high airborne activity).
- 4.4.3 Administer emergency first aid and determine the nature and extent of injury.
- 4.4.4 If the extent of injury permits, remove Anti-C clothing prior to transporting the injured off site.
- 4.4.5 A member of the Inplant Radiation Protection Staff will accompany the injured person to the medical facility.
- 4.4.6 The plant Radiation Staff member accompanying the injured person will maintain contamination control at the hospital in accordance with EP-RET-8.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-RET-2F REV. B

TITLE: Personnel Decontamination

DATE: MAR 10 1993 | PAGE 1 of 4

REVIEWED BY

John Piskunoff / [Signature]

APPROVED BY

[Signature]

1.0 APPLICABILITY

This procedure shall be implemented by the In-Plant and Site Radiation Emergency Teams (RET) whenever contamination of hands, general body, hair, mouth, or nostrils is encountered as indicated by an alarm on the personnel frisker or mouth or nasal swabs above background levels.

2.0 PRECAUTIONS

- 2.1 The personnel frisker alarm should be set at 100 cpm above background.
- 2.2 Personnel decontamination, other than minor hand contamination, will be carried out only under the direction of a Radiation Technologist.
- 2.3 In no case shall personnel with mouth or nasal contamination be permitted to eat, drink, or smoke, until approved by the Radiological Protection Director. The medical consultant will be contacted for all mouth or eye contamination problems.

3.0 REFERENCES

None

4.0 INSTRUCTIONS

4.1 Minor Hand Contamination

- 4.1.1 Instruct the contaminated person to wash for not less than 2 minutes, nor more than three minutes with Decon Hand Soap in tepid water. Give special attention to areas between the fingers and around the finger nails.
- 4.1.2 Re-survey the contaminated area and repeat 4.1.1 as necessary, taking care not to break the skin or spread contamination. Do not exceed three or four times.

4.2 Heavily Contaminated Hands

NOTE: This method should be used only if Step 4.1 has been unsuccessful.

- 4.2.1 Scrub the hands with a soft brush using a heavy lather and tepid water. Instruct the contaminated person to wash for not more than 2 minutes each time. Thorough rinses shall be done between scrubs.
- 4.2.2 Do not exceed three scrubs and take care not to abrade the skin. Re-survey for further evaluation after each scrub. Apply lanolin or hand cream to prevent chapping.

4.3 Titanium Dioxide

- 4.3.1 This method shall only be used with approval of the Radiological Protection Director (RPD).
- 4.3.2 Apply a liberal portion of titanium dioxide, a mild abrasive, in a water paste to the hands. Work this paste over contaminated area for at least 2 minutes. Use water sparingly to keep paste moist. Rinse with tepid water and follow by washing thoroughly with soap, brush, and water. Be sure no paste is allowed to remain around the nails. Re-survey and repeat as necessary.

4.4 Potassium Permanganate

- 4.4.1 This method shall only be used with approval of the Radiological Protection Director.
- 4.4.2 Mix equal volumes of a saturated solution of potassium permanganate (6.4gKMnO₄ to 100 ml water) and 0.2N sulfuric acid. Pour this over the wet hands rubbing the entire surface and using a soft hand brush for not more than two minutes. (NOTE: This application will remove a layer of skin if allowed to remain in contact with the hands too long; consequently, the times stated here should not be exceeded for any single application). Rinse with tepid water.
- 4.4.3 Apply a fresh 5% (5gNaHSO₃ to 100 ml water) solution of sodium acid sulfite (NaHSO₃) in the same manner as described above, using a hand brush and tepid water for not more than two minutes. (NOTE: This will remove the permanganate stain and skin layer if in contact with skin more than two minutes.) Rinse thoroughly and wash with soap and water.
- 4.4.4 This procedure may be repeated several times, as long as the permanganate solution is not applied for more than two minutes during one washing.
- 4.4.5 Applications to other parts of the body may be facilitated, by the use of swabs or pads dipped in the solutions. (Use gloves when handling swabs or pads.) Lanolin or hand cream should be applied after washing. DO NOT use near face or other body openings.

4.5 General Body Contamination

- 4.5.1 Instruct the contaminated person to shower in the "hot shower" room. Scrub contaminated parts of body with decon soap starting at the neck and working toward the lower extremities. Local areas of contamination will be dealt with as described in Section 3.3 and 3.4 above.
- 4.5.2 Save all towels, wash rags, etc., so they can be checked for contamination.

4.6 Hair Contamination

- 4.6.1 Instruct the contaminated person to wash hair in a sink with shampoo. Do not use the shower for hair decontamination, as contamination can be spread to the rest of the body.
- 4.6.2 Check face and neck, as well as hair, for contamination. Repeat as required.

4.7 Mouth Contamination

- 4.7.1 Flush the mouth with tap water. Assume a bent position to prevent swallowing the water. Do not allow the person to "gargle" the water.
- 4.7.2 Check the face, nasal areas, and throat for contamination.
- 4.7.3 Whole body count the individual to insure contamination is removed and has not spread to the G-I tract.
- 4.7.4 Cases of persistent contamination should be referred to a physician trained in radiological emergencies.

4.8 Nasal Contamination

- 4.8.1 Instruct the person to blow his nose repeatedly. Save the tissues for counting.
- 4.8.2 Dampen swab (one for each nostril), insert carefully as far as possible, and then withdraw swab, twirling it inside of the nostril as it is withdrawn. Repeat until the swab shows no detectable activity. Run a swab on the GeLi for isotope identification.
- 4.8.3 Whole Body Count the individual to insure contamination has not spread to the lungs.
- 4.8.4 Cases of persistent contamination should be referred to a physician trained in radiological emergencies.

4.9 Eye Contamination

- 4.9.1 Irrigate eyes with Allclear eye lotion (sterile, isotonic solution) only. Assume a bent position to preclude contamination spread.
- 4.9.2 After contamination is no longer detected on the frisker or contamination persists, perform a stationary whole body count of the head area.
- 4.9.3 Cases of persistent contamination should be referred to a physician trained in radiological emergencies.

4.10 Persistent Extremity Contamination

- 4.10.1 Place the bare hand or foot in a rubber or plastic glove or booty. Tape all openings shut.
- 4.10.2 Place near source of heat for 10 to 15 minutes or until the extremity is sweating profusely. Gloves can be worn for a few hours to utilize body heat.
- 4.10.3 As soon as the extremity is sweating profusely, remove covering and wash with soap and water immediately. Any delay will allow contamination to seep into the skin pores.

WISCONSIN PUBLIC SERVICE CORPORATION

Kewaunee Nuclear Power Plant

EMERGENCY PLAN IMPLEMENTATION PROCEDURE

NO. EP-RET-3

REV. C

TITLE: Emergency Chemistry Team

DATE: MAR 10 1993

PAGE 1 of 2

REVIEWED BY

John Richard / [Signature]

APPROVED BY

[Signature]

1.0 PURPOSE

This procedure defines the responsibilities and requirements of the Emergency Chemistry Team.

2.0 APPLICABILITY

This procedure will be applicable during an Alert, Site Emergency, General Emergency, or if requested by the Radiological Protection Director (RPD) or the Emergency Director (ED).

3.0 REFERENCES

3.1 EP-RET-1, Radiation Emergency Team Organization

4.0 RESPONSIBILITIES

4.1 The Emergency Chemistry Team is responsible for performing the chemical analysis necessary for the determination of shutdown margin, extent of liquid effluent releases, extent of core damage, and conditions in the various building sumps and other liquid waste collection points.

4.2 The Emergency Chemistry Team is also responsible for all operation of the Containment Air Sample Panel and Containment Hydrogen Analyzer.

4.3 Any analyses where expected dose to the team member is greater than 500 mrem must be authorized by an Emergency Radiation Work Permit (See EP-AD-11).

5.0 REQUIREMENTS

5.1 The Emergency Chemistry Team shall follow the priorities listed below unless amended by the RPD or ED.

5.1.1 Measure Reactor Coolant System Boron Concentration.

5.1.2 Analyze steam generator samples to determine primary-secondary leakage and release to the environment.

5.1.3 Analyze containment air for assessment of radiological hazards and hydrogen concentration.

5.1.4 Characterize liquid effluent release paths.

5.1.5 Analyze reactor coolant for assessment of core damage.

WISCONSIN PUBLIC SERVICE CORPORATION
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NO. EP-RET-3

TITLE: Emergency Chemistry Team

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- 5.1.6 Analyze various building sumps for assessment of radiological hazards.
- 5.1.7 Assist in analysis of environmental samples.
- 5.2 The following immediate actions shall be taken upon activation of the Emergency Chemistry Team.
 - 5.2.1 If Off-site, report to the Site Access Facility and sign out dosimetry.
 - 5.2.2 Contact the Radiological Protection Director (RPD) or Shift Supervisor to determine the best access route into the plant.
 - 5.2.3 Report to the Radiation Protection Office (or Radiological Analysis Facility) and contact the RPD for information on what chemistry samples are required.
 - 5.2.4 Survey the Cold Chem Lab, Hot Chem Lab and High Rad Sample Room to determine habitability (background less than 100 mr/hr).
- 5.3 The following Subsequent Actions shall be taken after completion of Initial Actions.
 - 5.3.1 Assist the Inplant Radiation Emergency Team in determining the best available route to each sample point.
 - 5.3.2 Obtain and analyze reactor coolant samples per EP-RET-3B.
 - 5.3.3 Obtain and analyze containment air per EP-RET-3C.
 - 5.3.4 Obtain and analyze liquid effluent samples per EP-RET-3A.
 - 5.3.5 Sample building sumps as requested.
 - 5.3.6 Report all results to the Radiological Protection Director.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTATION PROCEDURE

NO. EP-RET-3B REV. B

TITLE: Post Accident Reactor Coolant
Alternate Sampling Procedure

DATE: MAR 10 1983

PAGE 1 of 3

REVIEWED BY

John Rishman / M. L. Madsen

APPROVED BY

STAT

1.0 APPLICABILITY

This procedure is to detail the requirements and considerations for sampling the Reactor Coolant System during a Post LOCA condition, when the High Rad Sample Rom (HRSR) is not operational.

2.0 PRECAUTIONS

- 2.1 Process an Emergency Radiation Work Permit (see EP-AD-11).
- 2.2 Process an Emergency Work Request to remove the Aux Building Exhaust fan interlock from the sample sink and Hot Lab Fume Hood Exhausts.
- 2.3 Utilize onsite Radio Communications with the Radiological Protection Director while working in the High Radiation Areas.
- 2.4 Contact H.P. for continuous coverage during sampling, and extremity badges.
- 2.5 Contact Control Room for readings on Local Radiation Area Monitors at the Hot Lab and Primary Sample Room (R-3 and R-6).
- 2.6 Dose rate at sample sink from containment shine could be as high as 22 mR/hr.
- 2.7 Dose rate at fume hood from containment shine could be as high as 2 mR/hr.
- 2.8 Reactor coolant source term could be as high as 18.6 R/hr/ml at 1 foot. (20C¹/ml).
- 2.9 Sample sink acts as a point source of about 5181 R/hr at 1 foot.
- 2.10 Sample heat exchanger acts as a point source which could be as high as 19,688 R/hr at 1 foot.
- 2.11 Total dose commitment for gamma and pH analysis which could be as high as 3000 to 4000 mRem.
- 2.12 Total dose commitment for boron analysis which could be as high as 1300 mRem.

3.0 REFERENCES

- 3.1 RC-C-82, Boron Analysis - Curcumin Method
- 3.2 RC-C-62, Gross Gamma - 25 milliliter
- 3.3 RC-C-15B, pH - Standardization and Calibration

4.0 INSTRUCTION

4.1 Summary

- 4.1.1 Set valving at the sample sink to draw a reactor coolant hot leg sample (ref. dwg. XK100-44).
- 4.1.2 Override the containment isolation signal to establish flow through the sample sink.
- 4.1.3 Establish flow through the 1/16 inch line to the fume hood by opening RC-430.
- 4.1.4 Measure the sample flow for pH.
- 4.1.5 Withdraw a 1 microliter sample for subsequent dilution, gamma scan and boron analysis using the curcumin procedure (RC-C-82).

4.2 Equipment

- 4.2.1 5 ul liquid syringe.
- 4.2.2 1 ml liquid syringe.
- 4.2.3 10 ml volumetric flask.
- 4.2.4 1 liter poly bottle.
- 4.2.5 Refer to RC-C-82 for additional equipment and special reagents required.

4.3 Detailed Procedure

- 4.3.1 Proceed to High Rad Sample Room and position RC-437-1 and RC-437-2 to Deaerated Drain Tank.
- 4.3.2 Proceed to Hot Lab via door 143, door 55 or as determined from current surveys.
- 4.3.3 Insure drying oven is set at 55 to 60°C.
- 4.3.4 Install reach rod to RC 430 handwheel. Verify operability and leave RC 430 closed.
- 4.3.5 Throttle Open RC-425. Open RC-409, 434, and 436. Close RC-406 and RC 408.
- 4.3.6 Insure sample sink exhaust fan, and fume hood exhaust fan are operating.

- 4.3.7 Connect pH electrode to pH meter and standardize (see RC C-15B).
- 4.3.8 Start cold water flow to the fume hood sink drain.
- 4.3.9 Request Control Room to open RC 422 and RC 423.

NOTE: From this point in time on, the sample room is inaccessible. Fields in the Hot Chem Lab will vary from 50 mR/hr at door 149 to greater than 10R/hr at the fume hood.

- 4.3.10 After recirculating the sample system for 5 minutes, carefully throttle open RC 430 using the installed reach rod. This starts flow through the sample cell and will increase radiation levels in the lab.
- 4.3.11 When sample cell overflows, read the pH meter.
- 4.3.12 Shut Sample Valve RC 430.
- 4.3.13 Request control room shut RC-422 and RC-423.
- 4.3.14 In HRSR at Sample Acquisition Panel:
OPEN FPC-51 Sample Flush Line Isol.
OPEN FPC-51-14 RCHL Sample Flush

Purge Hot Lab Sample System until radiation levels in Sample Room return to near normal.
- 4.3.15 In HRSR at Sample Acquisition Panel:
SHUT FPC-51 Sample FLush Line Isol.
SHUT FPC-51-14 RCHL Sample Flush

NOTE: Insure RC-437-1 and RC-437-2 are left in the D.D.T. position
- 4.3.16 At fume hood draw a 1 ul sample and dilute to volume in a 10 ml volumetric flask.
- 4.3.17 Withdraw a .1 ml sample, from the diluted sample in step 4.3.12, and dilute to volume in a 1 liter poly bottle. Perform a coolant gamma scan per RC-C-62.
- 4.3.18 Withdraw a 1.0 ml of Sample from the diluted Sample in step 4.3.12 and analyze this 1 ml sample for boron as per RC-C-82.
- 4.3.19 Retain the diluted sample from step 4.3.16 in shielded storage for possible further analyses.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-RET-4 REV. C

TITLE: Site Radiation Emergency Team

DATE: MAR 10 1983

PAGE 1 of 2

REVIEWED BY

John Richard / M. M. M. M.

APPROVED BY

D. M. M.

1.0 PURPOSE

This procedure describes the duties and responsibilities of the Site Radiation Emergency Team (Site RET).

2.0 APPLICABILITY

The Site RET will be activated during an Alert, Site Emergency, or General Emergency or at the discretion of the Radiological Protection Director (RPD).

3.0 REFERENCES

3.1 EP-RET-1, Radiation Emergency Team Organization

4.0 RESPONSIBILITIES

4.1 The Site RET is responsible for monitoring radiological conditions in that portion of the plant outside the Protected Area.

4.2 The Site RET is responsible for maintaining radiological controls at the Site Access Facility (SAF).

4.3 The Site RET is responsible for assisting the Radiological Protection Director (RPD) in any other radiological activities required.

5.0 REQUIREMENTS

5.1 The following priorities shall be followed unless amended by the RPD or the Emergency Director (ED).

5.1.1 Monitor conditions at the SAF, and access routes to the plant.

5.1.2 Insure proper issuance of personnel dosimetry at the SAF (EP-RET-4B).

5.1.3 Assist the Emergency Response Manager (ERM) and Environmental Protection Director (EPD) in maintaining current radiological information on conditions at the SAF and access routes within the site boundary.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-RET-4

TITLE: Site Radiation Emergency Team

DATE: MAR 10 1983

PAGE 2 of 2

5.2 The following actions are required to prepare the SAF for activation:

5.2.1 Report to the SAF and notify the Radiological Protection Director or shift HP you are opening the SAF.

5.2.2 Issue TLD's and pocket dosimeters using the Emergency TLD Issue Form (see EP-RET-4B).

5.2.3 Source check the portable survey instruments.

5.2.4 Inform the RPD or Shift HP of radiological conditions at the SAF.

5.4 The following actions are to be completed following SAF activation.

5.4.1 Survey the south plant access road for direct radiation shine.

5.4.2 Survey on-site section of State Highway 42 for direct radiation shine.

5.4.3 All radiological data should be transmitted to the RPD and posted on the Base maps at the SAF.

5.4.4 Assist the Environmental Monitoring teams in site air sampling as requested.

5.4.6 Maintain radiological controls at the SAF per EP-RET-4B.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-RET-4B REV. A

TITLE: Radiological Controls at
Site Access Facility

DATE MAR 10 1993 PAGE 1 of 4

REVIEWED BY

John Richard Wilman

APPROVED BY

DWT

1.0 APPLICABILITY

- 1.1 Personnel exposure monitoring at the Site Access Facility (SAF) will be initiated at the levels of Alert, Site Emergency and General Emergency, and as directed by The Emergency Director (ED) or Radiological Protection Director (RPD).
- 1.2 Contamination Control measures will be initiated at the levels of Site Emergency, General Emergency or as directed by the Emergency Director (ED) or Radiological Protection Director (RPD)

2.0 PRECAUTIONS

None

3.0 REFERENCES

- 3.1 EP-RET-2F, Personnel Decontamination.

4.0 INSTRUCTIONS

The Site Radiation Emergency Team (Site-RET) shall assemble at the SAF upon declaration of Emergency Levels as specified in 1.1 and 1.2 above and shall ensure that the following Radiological Controls are established.

4.1 Personnel Exposure Monitoring

- 4.1.1 All personnel reporting to the Site Access Facility will be issued pocket dosimeters, Eberline TLD's (EBTLD) and inhouse TLD's (IHTLD) using the Emergency TLD Badge Issue form (Form RET-4B).

- 4.1.2 The critical items on the form are underlined:

Name
Social Security No.
Date of Birth
Employer

These shall be filled out by all personnel receiving dosimetry. The remaining items on the form can be completed at a later date.

- 4.1.3 Record date and time of issue on the form.

- 4.1.4 Instruct all personnel to periodically monitor their pocket dosimeters, and to report to the SAF or Rad Protection Office if the dosimeter reaches about 3/4 of full scale.
- 4.1.5 Any dosimeters either 3/4 scale or off scale should be re-zeroed and returned to the wearer. The IHTLD should be collected and a new badge reissued. Contact the Radiological Protection Director. If he requests readout, transport the collected IHTLD's to the plant in the shielded container.

4.2 Contamination Control Measures

- 4.2.1 Personnel are required to utilize plastic booties, lab coats, and cotton gloves if ground contamination levels are greater than 100 dpm per 100 sq. cm, as determined by swipe surveys.
- 4.2.2 Non-WPS vehicles will not be allowed access to the site, if ground contamination levels exceed the limit stated in 4.2.1, without the Emergency Response Director's authorization.

4.2.3 Personnel Monitoring

- a. Direct personnel entering the SAF from the Plant areas to place lab coats and gloves in the containers provided.

NOTE: Containers should be emptied frequently and contents bagged and placed in posted area outside trailer to maintain background radiation levels at a minimum.

- b. Proceed to the Frisker Station using normal step off pad procedures.
- c. Assist the person in frisking all portions of the body. Pay particular attention to hair, nose, mouth, hands, and feet. Do not exceed the frisking speed posted on the frisker.

NOTE: Remember to frisk TLD's and pocket dosimeters.

- d. If the frisker alarms, decontaminate per EP-RET-2F.
- e. If the person frisks clean, he may leave the site. Insure the TLD's and dosimeters are turned in prior to exiting.

4.2.4 Vehicles Exiting the Site

- a. Request the driver and all passengers frisk out through the SAF control point.
- b. Using a portable frisker, check all horizontal surfaces, paying particular attention to floor boards, pedals, seats, steering wheel, and dashboard.
- c. Open the hood and frisk the air cleaner for particulates that may have been trapped due to engine operation.
- d. Swipe the tires and at least three portions of the exterior (e.g. hood, top, trunk, door handles, etc.).
- e. Vehicles alarming the frisker or swiping greater than 100 dpm/100 sq. cm. will not be allowed to leave the site without RPD approval.

4.2.5 Packages and Equipment

- a. Packages and equipment being removed from the Site should be monitored at the SAF frisking station unless it is not convenient to remove them from the vehicle.
- b. Removal of any package bearing a "Radioactive Materials" label must be authorized by the Radiological Protection Director.
- c. Frisk the external surfaces of all packages and equipment.
- d. Open all boxes, cartons, cases, etc., and survey the contents using a frisker or swipes as appropriate.
- e. Removal of any package or piece of equipment from the Site that alarms the frisker or swipes greater than 100 dpm/sq. cm. requires specific authorization by the RPD or ED.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-RET-4C

REV. A

TITLE: Site Radiological Monitoring

DATE: MAR 10 1993

PAGE 1 of 2

REVIEWED BY

John Richard / H.B. Muecke

APPROVED BY

M. St.

1.0 APPLICABILITY

Site radiological monitoring will be initiated upon activation of the Site Access Facility (SAF) or upon request of the Radiological Protection Director (RPD) or Emergency Director (ED).

2.0 PRECAUTIONS

- 2.1 The SAF will be relocated if airborne radioactivity reaches 3 times MPC (10 CFR 20, Appendix B, Table 1, Column 1) and is predicted to remain at that level or higher for a minimum of three hours.
- 2.2 The SAF will be relocated if direct radiation levels (submersion dose or shine) reach 100 mrem/hr and are expected to remain at that level or higher for a minimum of three hours.

3.0 REFERENCES

10 CFR 20, Appendix B

4.0 INSTRUCTIONS

SITE RADIATION EMERGENCY TEAM MEMBERS

4.1 Direct Radiation Surveys

4.1.1 Perform direct radiation surveys of the site at intervals as directed by the Radiological Protection Director but not to exceed four hours.

4.1.2 Initial survey points are:

Site Access Facility
Junction of Nuclear Road and STH 42
North Access Road and STH 42
North Site Boundary and STH 42
South Site Boundary and STH 42
Main Access Road and STH 42
Security Building 1st Floor
Security Building 2nd Floor

Survey locations can be modified by the Radiological Protection Director as required.

- | 4.1.3 Surveys should be made approximately 3 feet above ground level.
- 4.1.4 Report all results to the Radiological Protection Director.
- 4.2 Ground Level Contamination Surveys
 - 4.2.1 Contact the Environmental Protection Director or Radiological Protection Director for an estimate of plume path.
 - | 4.2.2 Survey site roads, walkways and probable traffic routes as directed by the RPD.
 - 4.2.3 Surveys should be made with an RM 14/HP 210 holding the probe about 1/2 inch from the ground. If the RM 14 alarms raise the probe to about 1 foot to determine if the alarm is from ground contamination or airborne activity.
 - 4.2.4 If ground contamination is confirmed, take surface swipes of the area. Return the swipes to the SAF for counting.
 - 4.2.5 Report all results to the Radiological Protection Director.
 - 4.2.6 If the contamination is localized, barricade or restrict traffic through the area to prevent further spread.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-RET-7 REV. A
TITLE: Radiological Analysis Facility/
Radiation Protection Office
Communications

DATE: MAR 10 1983

PAGE 1 of 5

REVIEWED BY

John Richard [Signature]

APPROVED BY

[Signature]

1.0 PURPOSE

Describes the communication system and equipment utilized in the Radiological Analysis Facility (RAF) and Radiation Protection Office (RPO) during an emergency.

2.0 APPLICABILITY

This procedure will apply to any declared emergency as defined in EP-AD-2, Emergency Class Determination.

3.0 REFERENCES

3.1 Kewaunee Nuclear Power Plant Emergency Plan

3.2 EP-AD-17, Communications

4.0 REQUIREMENTS

4.1 PBX Extension Lines (tan receivers)

4.1.1 Four extension telephones in the RAF and two extension telephones in the RPO tie into the plant PBX Telephone System.

4.1.2 Provides communication to the Control Room, Emergency Operations Facility (EOF), Radiological Analysis Facility (RAF), Radiation Protection Office (RPO), Technical Support Center (TSC), Site Access Facility (SAF), Operations Support Facility (OSF), WPS Lakeshore Division Office and WPS Corporate Headquarters by dialing the designated three digit extension number for each location.

4.2 Ringdown Circuits (blue telephone with call light)

4.2.1 Five ringdown circuit telephones in the RAF, each of which provides direct line communications to either the Control Room, TSC, OSF, EOF, or RPO. Each telephone will be designated as to which location it contacts.

4.2.2 One ringdown circuit telephone in the RPO provides direct line communications to the RAF.

4.2.3 Designed in such a manner that taking the receiver off the hook will cause the telephone at the receiving end to ring. Call lights are provided as a backup method to the telephone ringing to aid in determining which telephone needs to be answered.

4.3 Gai-Tronics Paging System (gray telephone with gray receiver)

4.3.1 Provides means of broadcasting emergency alarms and announcements throughout the plant.

4.3.2 Provides a semi-private message system which can be used throughout the plant, except in the SAF.

4.3.3 Designed with five available circuits. In order to operate, pick up the hand piece, select one of the five circuits, listen to ensure a clear circuit, depress button and announce slowly and clearly the name of the party you want to contact and which line to use. Release button and wait for party to pick up that line.

4.4 NRC Health Physics Network (yellow phone)

4.4.1 Communication system in the RAF and RPO provided for NRC use only.

4.4.2 Provides direct communication to the NRC Health Physics Network.

4.4.3 Links together the NRC Operations Center, all NRC Regional Offices and all nuclear facilities.

4.5 Radio

4.5.1 A radio base station is located in the Control Room with remote console stations in the SAF, EOF and RAF. This provides communications for the Radiation Emergency Teams and Environmental Monitoring Teams.

4.5.2 The base and remote console stations are connected via a common antenna lead and can be used as an intercom by depressing the appropriate button on the station. This allows for communications between stations without radio transmission.

4.5.3 Portable radios are located at the RPO and RAF for use by the Radiation Emergency Teams and supply a backup system for the remote console station located in the RAF.

WISCONSIN PUBLIC SERVICE CORPORATION

Kewaunee Nuclear Power Plant

EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-RET-7

Radiological Analysis Facility/
TITLE: Radiation Protection Office
Communications

DATE: MAR 10 1983

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5.0 RESPONSIBILITIES

5.1 Radiological Protection Director

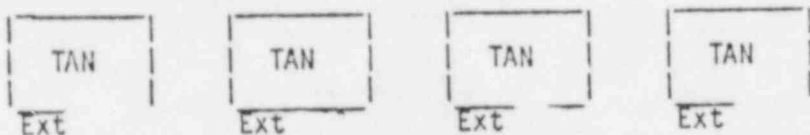
Ensures the communication systems are manned upon activation of the RAF/RPO.

5.2 RAF/RPO Communicator

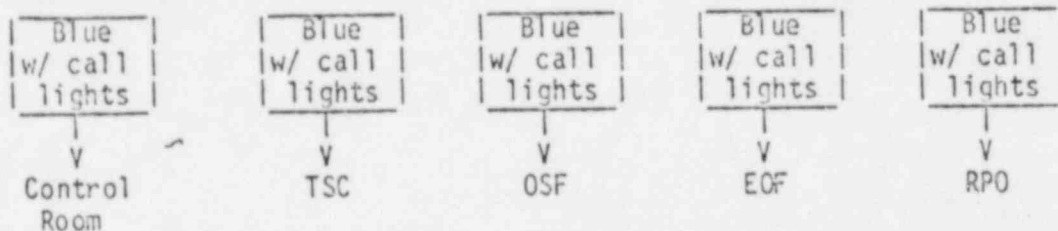
Stands by to receive calls from other emergency response facilities, records the information, and relays it to the RPD.

Radiological Analysis Facility

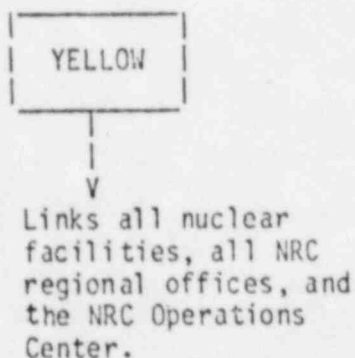
PBX Extension Lines



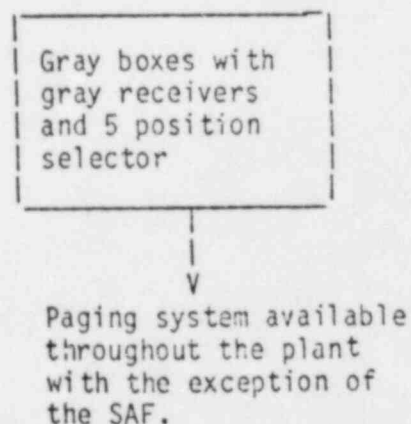
Ringdown Circuits



NRC Health Physics Network

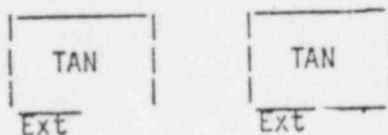


Gai-Tronics Paging System

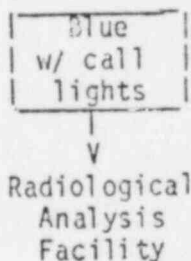


Radiation Protection Office

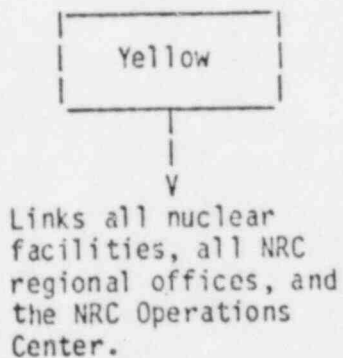
PBX Extension Lines



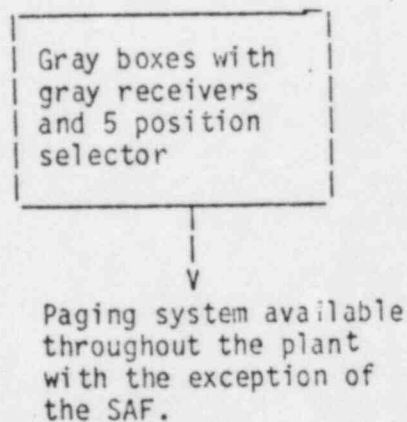
Ringdown Circuit



NRC Health Physics Network



Gai-Tronics Paging System



WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO.	EP-RET-8	REV. A
TITLE:	Contamination Control at the Two Rivers Community Hospital	
DATE:	MAR 10 1983	PAGE 1 of 11

REVIEWED BY

John Richard Hill

APPROVED BY

JRH

1.0 APPLICABILITY

This procedure is applicable to the Radiation Technologist or Inplant Radiation Emergency Team (RET) member who accompanies a contaminated injured person to the Two Rivers Community Hospital and during treatment at the hospital.

2.0 PRECAUTIONS

- 2.1 The hospital staff will have boundaries and barricades established and manned at the hospital in accordance with their "Condition Black Nuclear" procedure (see Figures RET-8.1, 8.2, 8.3 and 8.4).
- 2.2 The hospital staff is familiar with contamination control in a biological sense.
- 2.3 Limit the spread of contamination within the smallest area possible. DO NOT jeopardize patient care and treatment because of contamination control, but instead keep track of potential spread for future decontamination efforts.
- 2.4 If conflicts of authority arise between any of the hospital staff and your health physics duties which do not deal with patient care or treatment, resolve them as quickly as possible by contacting:
 - a. Emergency Room Nurse - P.M. Supervisor
 - b. - Staff Development Manager
 - c. Plant Operations Manager
 - d. Director of Nursing Services
 - e. Hospital President
- 2.5 Contamination control equipment, materials and forms are available at the Nuclear First Aid Room and the hospital triage area (see Figures RET-8.1 and 8.3).

3.0 REFERENCES

- 3.1 EP-RET-2E, Handling of Injured Personnel
- 3.2 EP-RET-2F, Personnel Decontamination
- 3.3 Two Rivers Community Hospital - Condition Black Nuclear (Rev. 8/82)

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-RET-8

TITLE: Contamination Control at the
Two Rivers Community Hospital

DATE: MAR 10 1983

PAGE 2 of 11

4.0 INSTRUCTIONS

4.1 Contact the Emergency Room Nurse or his/her alternate so that you and he/she can coordinate your efforts.

4.2 Ensure that the hospital staff involved with the injured personnel are wearing adequate protective clothing and that proper dosimetry has been issued as the situation dictates (see Form RET 8.1).

NOTE: Dosimeters are available at the "Nuclear First Aid Room" only.

4.3 Establish and stock the entry and dressing area going into the controlled area in conjunction with the Emergency Room Nurse or his/her alternate (see Figure RET 8.1).

4.4 Establish and stock the personnel/equipment monitoring station area in conjunction with the Emergency Room Nurse or his/her alternate

NOTE: Determine an area that can be used for storage of contaminated waste and equipment until decontamination operations can be started.

4.5 Monitor all equipment and personnel that are to be removed or wish to leave the controlled area of the hospital for radioactive contamination.

4.6 Monitor the private ambulance or emergency vehicle and crew for contamination prior to their release from the hospital admission point. Hold all articles and equipment that have been found to be contaminated at the hospital for future decontamination.

NOTE: Contact the Radiological Protection Director and inform him of private ambulance or emergency vehicle condition and find out if it is needed at the Kewaunee Plant to transfer another injured person.

4.7 Upon termination of "Condition Black Nuclear" at the Two Rivers Community Hospital, contact the Radiological Protection Director. Perform a complete contamination smear survey within all controlled area boundaries (see Form RET-8.2).

4.8 Report to the Radiological Protection Director the results of the contamination survey and the decontamination crew needed to perform all decontamination tasks.

WISCONSIN PUBLIC SERVICE CORPORATION

Kewaunee Nuclear Power Plant

EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-RET-8

TITLE: Contamination Control at the
Two Rivers Community Hospital

DATE: MAR 10 1983

PAGE 3 of 11

4.9 Perform a complete smear survey of all decontaminated areas and equipment to ensure that all levels are less than 100 DPM/100 cm² prior to their release (see Form RET-8.2).

4.10 Perform an inventory of all contamination control equipment used from the Radiation Control Storage areas and submit this list to: (see Form RET-8.3).

a. The Radiological Protection Director

b. The Health Physics Supervisor at the Point Beach Nuclear Plant

c. The Plant Operations Manager at the Two Rivers Community Hospital

4.11 Perform an inventory of all hospital and Emergency Vehicle equipment that could not be decontaminated less than 100 DPM/100 cm² and submit this list to the same individuals listed in Step 4.10 above.

FORM RET-8.3

KEWAUNEE NUCLEAR POWER PLANT

EMERGENCY PLAN HEALTH PHYSICS SUPPLIES AT
TWO RIVERS COMMUNITY HOSPITAL INVENTORY CHECKLIST

<u>Item</u>	<u>NFAR</u>		<u>Triage Area</u>	
	<u>Req'd</u>	<u>Avail</u>	<u>Req'd</u>	<u>Avail</u>
Absorbent paper, 50 ft. roll	1	_____	N/A	_____
Bags, plastic, assorted sizes (need garbage can size)	50	_____	50	_____
Bucket, plastic	1	_____	1	_____
Decontamination supplies:				
Cotton applicators, pkg.	1	_____	1	_____
Decon soap, 1 qt bottle	1	_____	1	_____
Hand brush	2	_____	2	_____
Potassium permanganate, 7 cap pkg	1	_____	1	_____
Sodium bisulfite, 7 cap pkg	1	_____	1	_____
Filter paper for smear surveys, pkg & envelopes	2	_____	2	_____
Gloves:				
Cotton pall bearers, pair	8	_____	8	_____
Rubber, pair	8	_____	8	_____
1 Full-face respirators w/particulate filters	4	_____	4	_____
Marking pens, pkg	1	_____	1	_____
Mops, sponge, with spare sponge	2	_____	2	_____
Protective clothing:				
Lab coats	6	_____	6	_____
Surgeon's cap	6	_____	6	_____
Plastic shoe covers	25	_____	25	_____
Medical Assistance Plan	1	_____	1	_____
Emergency Call List	1	_____	1	_____
Radiation warning signs and tags, assorted	10	_____	10	_____
Radiation warning tape, roll	1	_____	1	_____

FORM RET-8.3

KEWAUNEE NUCLEAR POWER PLANT

EMERGENCY PLAN HEALTH PHYSICS SUPPLIES AT
TWO RIVERS COMMUNITY HOSPITAL INVENTORY CHECKLIST
 (cont'd)

Item	NFAR		Triage Area	
	Req'd	Avail.	Req'd	Avail.
Tape, masking:				
1" roll	2	_____	2	_____
2" roll	2	_____	2	_____
Masslinn mop	1	_____	1	_____
Barrier tape	1	_____	1	_____
Dosimeters:				
0-500 Rem	10	_____	N/A	_____
0-2 Rem	5	_____	N/A	_____
Scissors	1	_____	1	_____
Tuck tape, rolls	2	_____	2	_____
Miscellaneous forms:				
CHP-21, Survey Form (Blank), pad	1	_____	1	_____
CHP-34, Dosimetry Rezero Sheet	5	_____	5	_____
CHP-39, Personnel Contamination Report	5	_____	5	_____
CHP-82, Quarterly Inventory Hospital	5	_____	5	_____
CHP-83, High-Range Dosimeter Issue Sheet	5	_____	5	_____

| The Two Rivers Community Hospital emergency supplies are inventories
 | and supplied by the Point Beach Nuclear Plant (WEPCO)

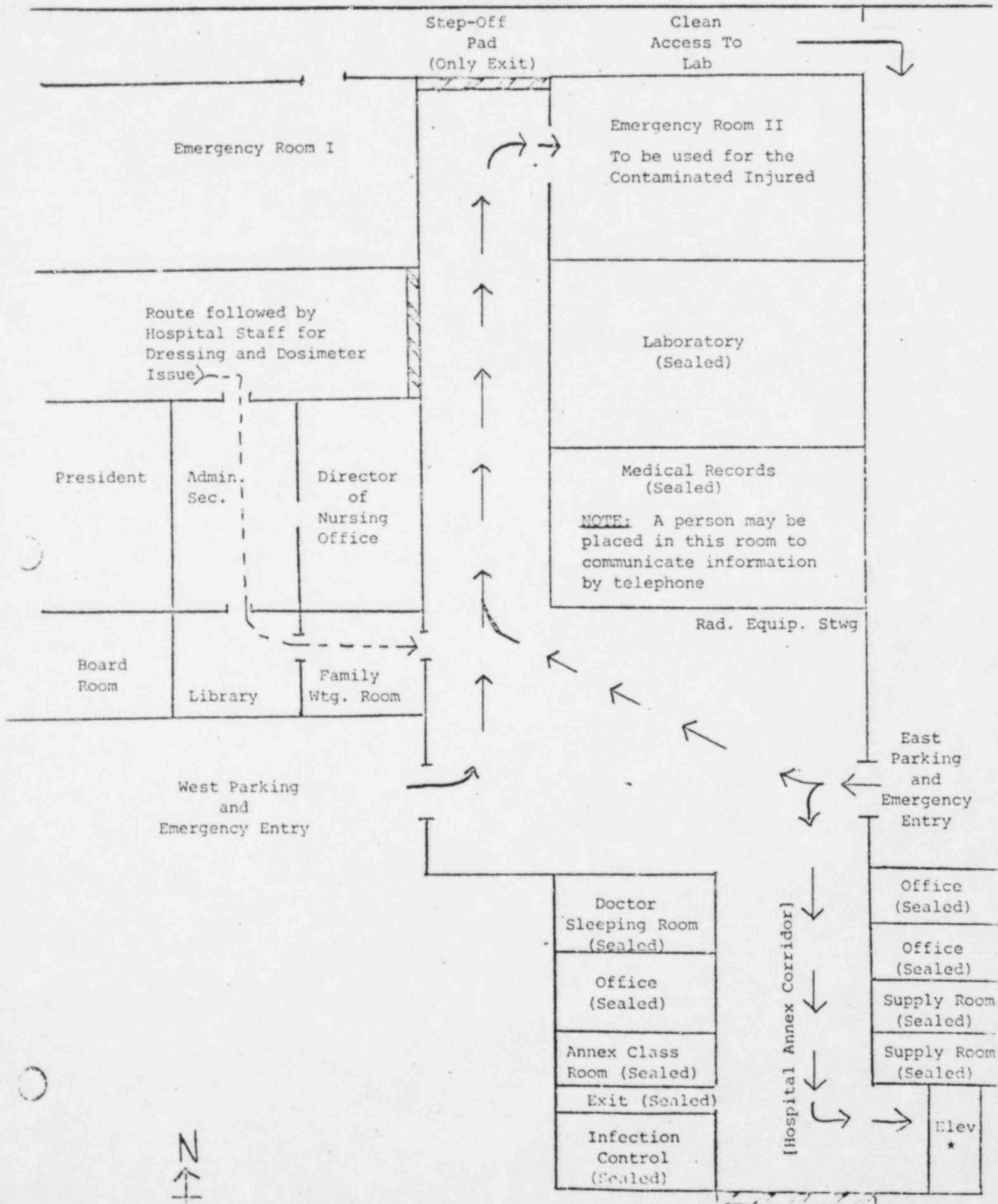
Medical Assistance Plan Revision Date _____

Call List Revision Date _____

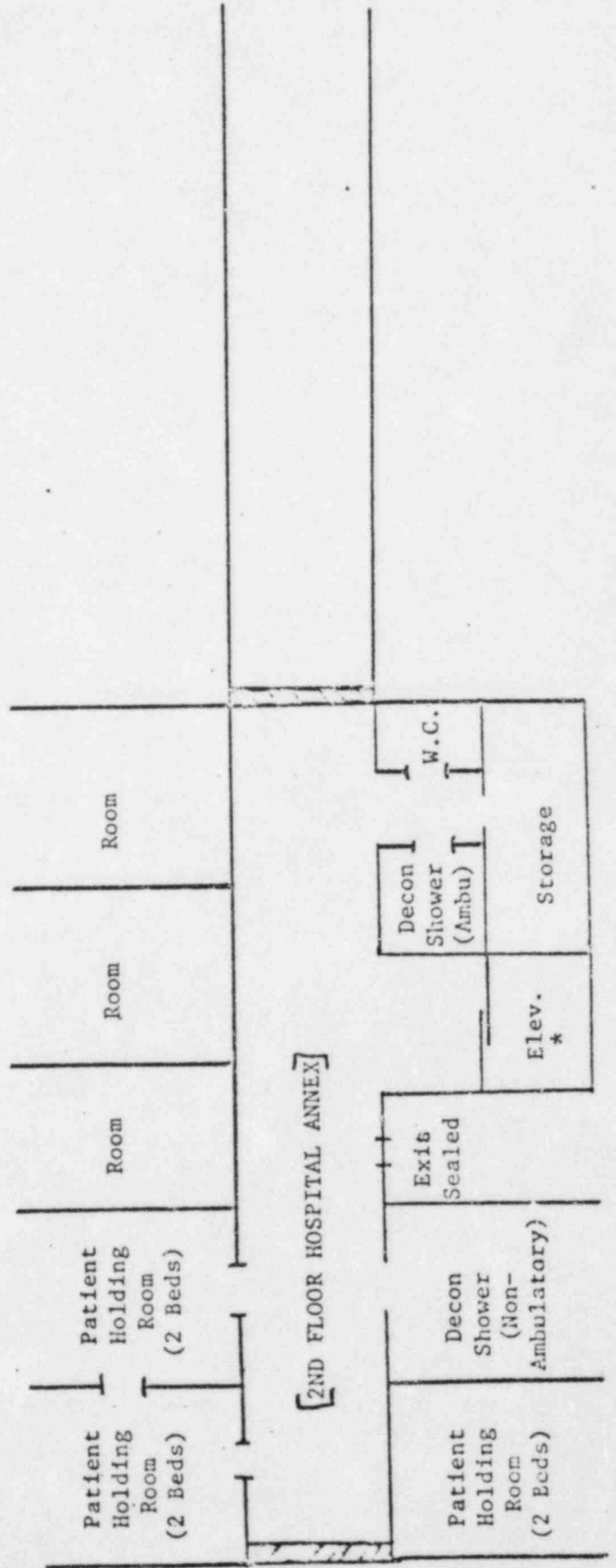
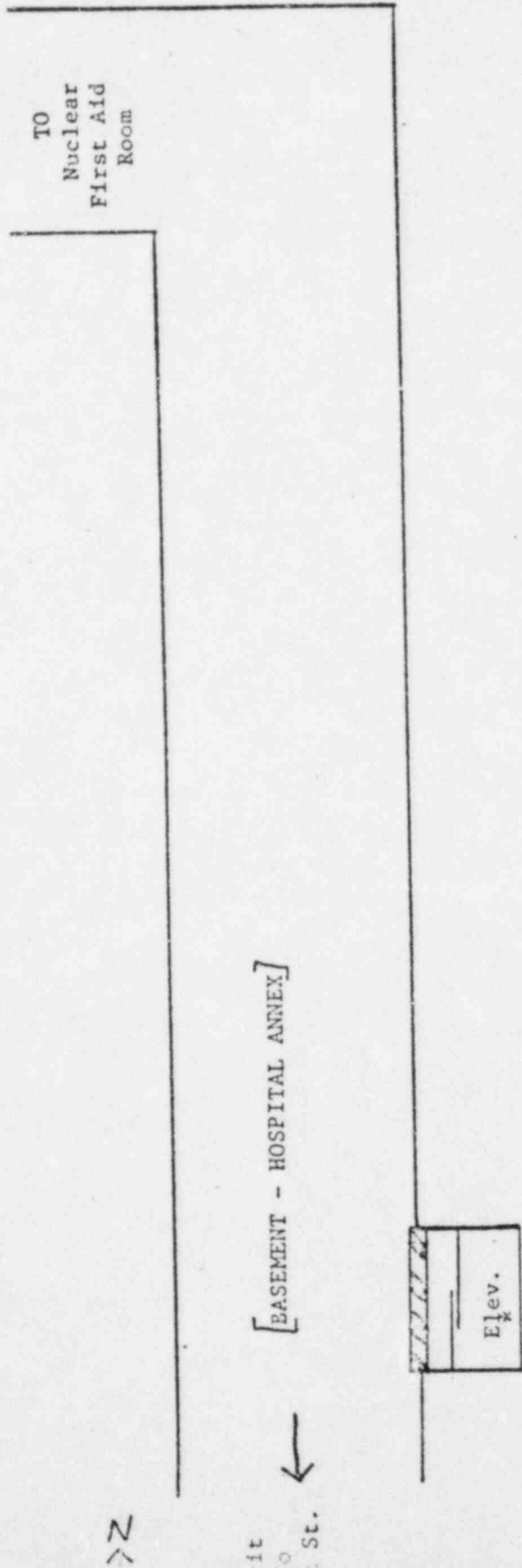
Completed By _____

FIGURE: EP-RET-8.1

MAR 10 1983

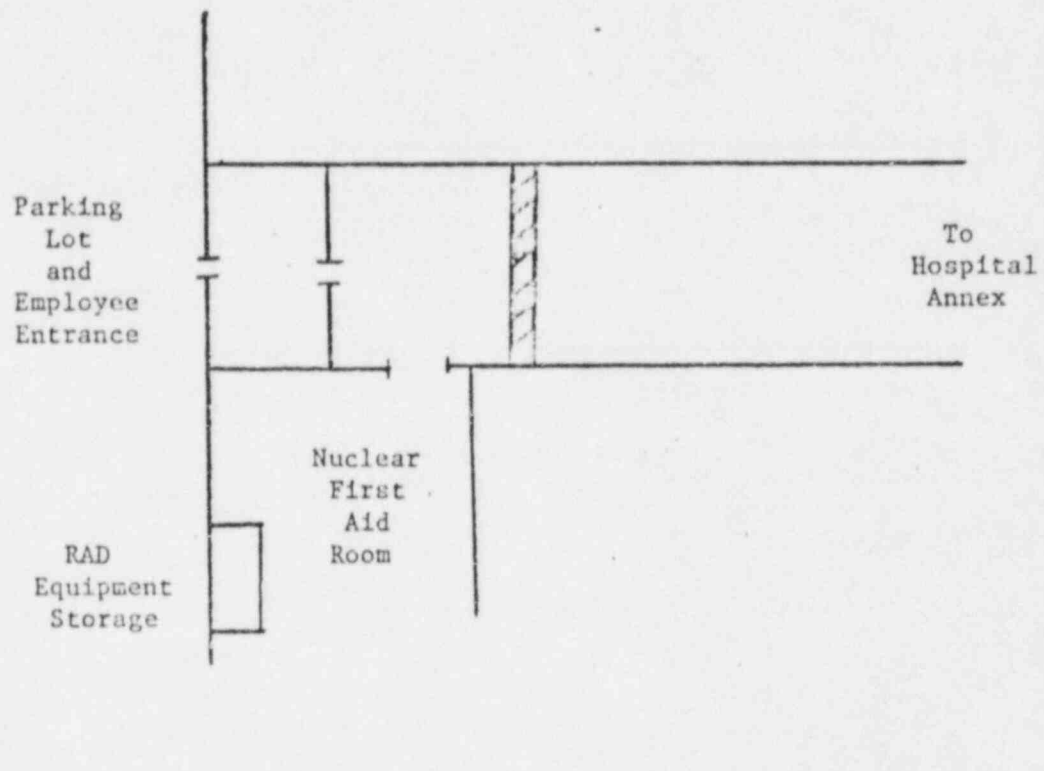


MAR 10 1983



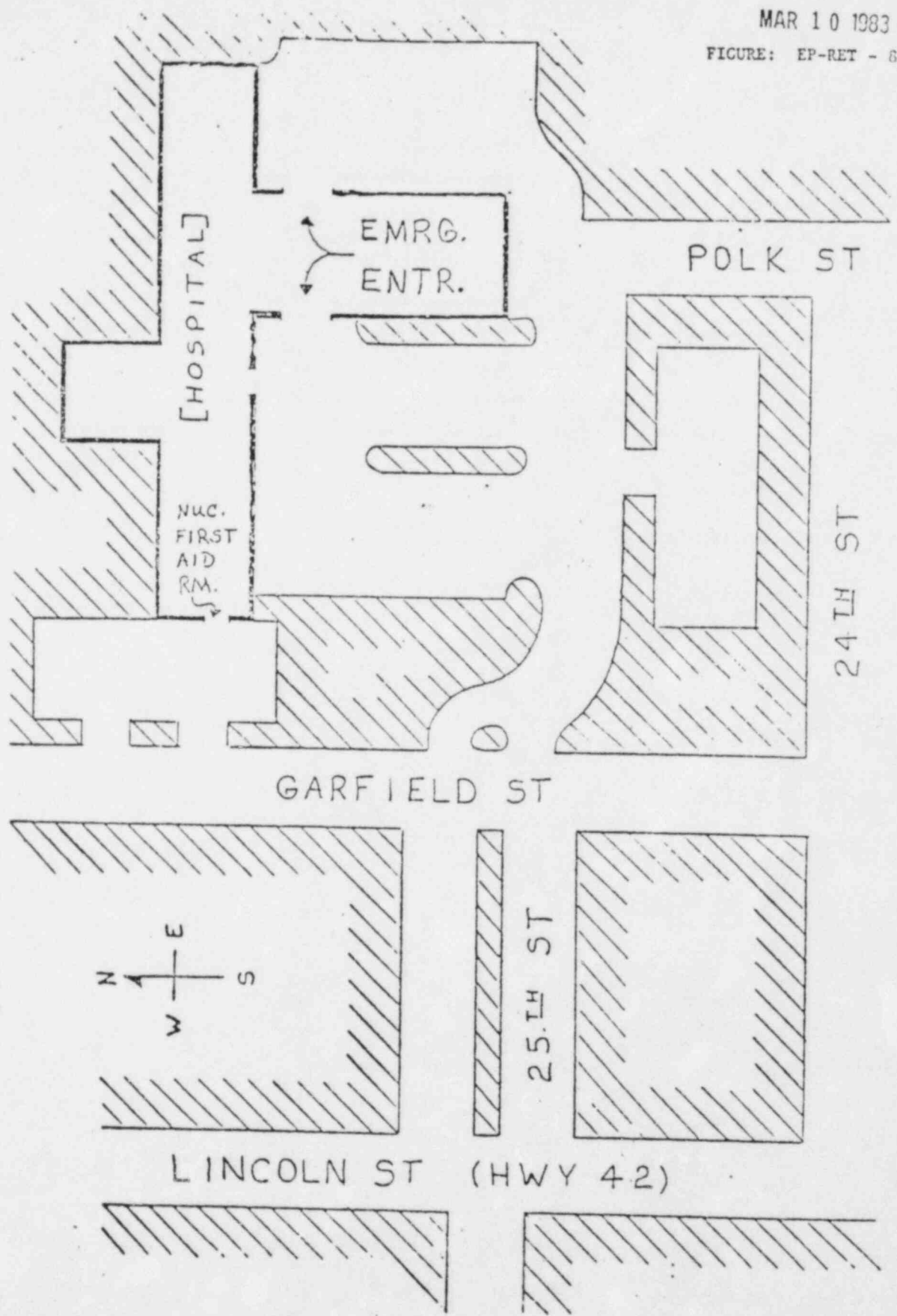
MAR 10 1983

FIGURE: EP-RET - 8.3



MAR 10 1983

FIGURE: EP-RET - 8.4



WISCONSIN PUBLIC SERVICE CORPORATION

Kewaunee Nuclear Power Plant

EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-SEC-1

REV. A

TITLE: Security Organization

DATE: MAR 10 1983

PAGE 1 of 2

REVIEWED BY *M. L. McLaughlin*

APPROVED BY *DWT*

1.0 PURPOSE

This procedure establishes the emergency response organization for the Security Force.

2.0 APPLICABILITY

This procedure applies to Security Force personnel upon declaration of an emergency.

3.0 REFERENCES

- 3.1 Kewaunee Nuclear Power Plant Emergency Plan
- 3.2 EP-AD-1, Plant Emergency Organization
- 3.3 EP-SEC-2, Security Force Response to Emergencies

4.0 RESPONSIBILITIES

4.1 Security Director

- 4.1.1 Directs plant security personnel in the performance of security activities during emergency situations.
- 4.1.2 Sets up access control operations to ensure that security is maintained at Emergency Response Facilities.
- 4.1.3 Provides personnel accountability of all onsite emergency response personnel.
- 4.1.4 Directs search and rescue operations.
- 4.1.5 Ensures issuance of personnel dosimetry to emergency response personnel.

4.2 Shift Captain

- 4.2.1 Assumes the responsibilities of the Security Director until relieved by the contacted Security Director.

4.2.2 Directs the Security Force during personnel assembly and accountability and reports the results to the Security Director.

4.3 Security Force

4.3.1 Proceed to assigned locations as directed by the Security Director or Shift Captain.

4.3.2 Issue personnel dosimetry to emergency response personnel.

4.3.3 Control access to the site and Emergency Operations Facility (EOF).

5.0 REQUIREMENTS

5.1 The Security Director will organize and direct the Security Force in accordance with EP-SEC-2, Security Force Response to Emergencies.

5.2 The Security Director will keep the Emergency Director informed on the status of personnel accountability.

5.3 The Security Director will assemble and dispatch Search and Rescue Teams from the Operational Support Facility or Radiation Protection office as required.

NOTE: Controlled area entries must be coordinated with the Radiological Protection Director.

5.4 The Security Director will assign a Security Officer to man communication links as required.

WISCONSIN PUBLIC SERVICE CORPORATION

Kewaunee Nuclear Power Plant.

EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-SEC-3

REV. D

TITLE: Personnel Accountability
(Initial and Maintaining)

DATE: MAR 10 1963

PAGE 1 of 3

REVIEWED BY *W. E. ...*

APPROVED BY *D. H. ...*

1.0 APPLICABILITY

1.1 Personnel accountability will be initiated when an incident is classified as a Site Emergency or General Emergency or whenever conditions warrant as determined by the Emergency Director.

2.0 PRECAUTIONS

2.1 Ensure all accountability reports are made clearly and are understood by receiving personnel.

2.2 Adhere to the radiation control policies and requirements outlined in EP-AD-11 and EP-RET-2D.

2.3 Ensure all incoming personnel are noted on a daily check-in sheet when entering the Protected Area or the site via the Site Access Facility.

3.0 REFERENCES

3.1 Kewaunee Nuclear Power Plant Emergency Plan

3.2 EP-AD-14, Search & Rescue

3.3 EP-AD-11, Emergency Radiation Controls Implementation

3.4 EP-AD-12, Personnel Assembly and Accountability

3.5 EP-RET-2D, Emergency Radiation Controls

4.0 INSTRUCTIONS

4.1 Security Director

4.1.1 Acquire a list of personnel (non-badged) in the Protected Area from the Visitor Register and check-in log.

4.1.2 Designate an individual to contact all assembly areas per Table EP-SEC-3 for personnel names and I.D. numbers.

4.1.3 Compare the two lists of personnel and determine any missing persons in the Protected Area.

- 4.1.4 Direct CAS operator to run a computer roll call for any missing persons.
 - 4.1.5 Attempt to contact any unaccounted for personnel, using plant Gai-tronics. Upon response, inform them to proceed to the nearest assembly area.
 - 4.1.6 If conditions permit, Security Force personnel should make a tour through the yard area, substation, sewage plant, and Met Tower due to the lack of communications in these areas. A radiation monitoring instrument should accompany these personnel.
 - 4.1.7 Inform the Emergency Director of the status of accountability within 30 minutes of emergency declaration and announcement.
 - 4.1.8 Direct search and rescue teams as required.
 - 4.1.9 Provide the Radiological Protection Director with support information on possible locations of unaccounted for personnel in controlled areas.
 - 4.1.10 Update the accountability status to the Emergency Director at least every 15 minutes, until all personnel, including visitors, have been located.
 - 4.1.11 After all personnel are located, periodic accountability checks should be performed to ensure continuous accountability of personnel.
 - 4.1.12 Ensure the Site Access Facility (SAF) Security Force members report and record personnel arriving from offsite.
- 4.2 Security Force
- 4.2.1 Assemble a muster list of personnel inside the Protected Area from the Visitor Register and check-in log. Give this to the Security Director.

TABLE SEC-3

EMERGENCY ASSEMBLY AREAS

GROUP	Primary Assembly Location and Telephone Numbers	Alternate Assembly Locations and Telephone Numbers	Coordinator
Operations Shift Crew	Control Room Phone	Radiation Protection Office Phone	Shift Supervisor or Event Oper. Director
Fire Brigade	Shift Supervisor's Office Phone	Admin. Bldg. Lobby Phone	Fire Brigade Leader
Fire Team	Admin. Bldg. Lobby Phone	Security Bldg. Phone	Fire Team Leader
In-plant, Site, Chemistry, Radiation Emergency Teams, Controlled Area Personnel	Radiation Protection Office Phone	Radiological Analysis Facility Phone	Radiological Protection Dire
Containment Personnel	Personnel Airlock Gai-tronics	Emergency Airlock Gai-tronics	Senior HP Technologist or Staff Member
Technical Support Center Staff	Technical Support Center Phone		Technical Support Center Director
Maintenance personnel, visitors, contractors, and personnel with no immediate emergency response duty	Operational Support Facility (Admin. Bldg. Ground Level) Phone		Support Activities Director
Training personnel	Training Building- General Meeting Room Phone	Site Access Facility Phone	Training Supervisor
Security Personnel (except CAS officers)	Security Bldg. Phone	Site Access Facility Phone	Security Director or Shift Captain

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-SEC-4

REV. A

TITLE: Dosimetry Issue at Site
Access Facility

DATE: MAR 10 1983

PAGE 1 of 3

REVIEWED BY

M. L. M... / J...

APPROVED BY

D. H. H...

1.0 APPLICABILITY

This procedure will be implemented when an emergency has been classified as an Alert, Site Emergency or General Emergency, or whenever the Site Access Facility (SAF) has been activated as a control point.

2.0 PRECAUTIONS

- 2.1 All security personnel at the SAF should ensure they have their personal dosimeters.
- 2.2 Any TLD badges transported to the plant for readout must be contained in shielded containers.
- 2.3 TLDs will not be reissued except to the person to whom it was initially issued.

3.0 REFERENCES

- 3.1 EP-SEC-2, Security Force Response to Emergencies
- 3.2 EP-RET-4B, Radiological Controls at the Site Access Facility

4.0 REQUIREMENTS FOR INCOMING PERSONNEL

- 4.1 The identity of all persons reporting to the SAF should be verified by possession of a Kewaunee Plant photo ID card.
- 4.2 All persons should be logged in on the appropriate checkin log (plant staff, 400 series, 600 series, etc.).
- 4.3 Each person should be issued a pocket dosimeter, inhouse TLD and Eberline TLD. Record the required information on Form RET-4B and Form SEC-4.

NOTE: Critical information is underlined; the remaining information can be obtained at a later date.

4.4 Direct the person(s) in the proper radiation access route to the plant. This route will be supplied by the Site Radiation Emergency Team (RET) the Radiological Protection Director or the Emergency Director.

4.5 Inform the Shift Captain and Hwy 42 officer that personnel are authorized to enter the plant.

5.0 REQUIREMENTS FOR OUTGOING PERSONNEL

5.1 Assist the Site RET in maintaining radiological controls per EP-RET-4B.

5.2 Collect the dosimeters and TLDs and record date of return on the appropriate log sheets.

5.3 Require the person to complete the remaining personal information on Form RET-4B.

5.4 Record the time out and dosimeter final reading on Form SEC-4. Re-zero the dosimeter and return it to the rack.

NOTE: Contact the Radiological Protection Director if the dosimeter is greater than 3/4 full scale.

5.5 Inquire if the person will be returning to the site within the next 16 hour period. If he/she will be returning, place the TLDs in the TLD rack and tag with the person's name and badge number. If he/she is not returning, place the TLDs in the shielded transport container.

5.6 Log the person out on the appropriate checkin sheet.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-TSC-2 REV. C

TITLE: Technical Support Center
Activation

DATE: MAR 10 1983

PAGE 1 of 5

REVIEWED BY *[Signature]*

APPROVED BY *[Signature]*

1.0 APPLICABILITY

The Technical Support Center (TSC) is activated for an Alert, Site Emergency, and General Emergency or at the request of the Emergency Director.

2.0 PRECAUTIONS

- 2.1 Report portable radiation readings obtained in the TSC to the Radiological Protection Director (RPD) and request the control console read-outs for the TSC radiation monitors for verification of habitability.
- 2.2 Ensure accountability of personnel and staff reporting to the TSC is maintained throughout the incident (see EP-AD-12).
- 2.3 Ensure Air Monitoring System (AMS) unit is operating or air samples are taken to measure airborne contamination.
- 2.4 Ensure that all actions and notifications are logged.

3.0 REFERENCES

- 3.1 Kewaunee Nuclear Power Plant Emergency Plan
- 3.2 EP-AD-17, Communications
- 3.3 EP-AD-12, Assembly and Accountability

4.0 INSTRUCTIONS

4.1 Technical Support Center Director (TSCD)

- 4.1.1 Notify members of the TSC staff (as many, or all, as necessary) in accordance with Table AD-17.1 using the Plant Supervisors/ STA Group.
- 4.1.2 Obtain a status briefing on plant conditions from the Control Room and/or Emergency Director.
- 4.1.3 Direct the first TSC staff member to arrive at the TSC to perform the steps listed in Section 4.2.

- 4.1.4 Assign the necessary TSC staff member(s) to man TSC communication links.
- 4.1.5 Inform the Control Room and Emergency Director that the TSC is operational upon completion of steps outlined in Section 4.2 and 4.3.
- 4.1.6 Brief the TSC staff periodically on the status of the emergency and pertinent plant conditions.
- 4.1.7 Maintain a log record of all significant events and actions.

NOTE: The above log shall include as a minimum the following information:

- a. Date
- b. Time
- c. Significant Event/Action
- d. Significant Actions Taken

- 4.1.8 Assign a TSC staff member to act as the Assembly Area Coordinator and perform EP-AD-12, Assembly and Accountability.
- 4.1.9 Initiate EP-TSC-3, Plant Status, to determine plant conditions.
- 4.2 First TSC Staff Member
 - 4.2.1 Complete the TSC Activation Checklist, Form TSC-2 and report completion to the TSCD.
- 4.3 TSC Communicators
 - 4.3.1 Establish contact(s) with assigned Emergency Facilities.
 - 4.3.2 Maintain a Communications Log (Form EP-AD-17) containing information received from and sent to other Emergency Response Facilities and other support organizations.

WISCONSIN PUBLIC SERVICE CORPORATION

Kewaunee Nuclear Power Plant

EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-TSC-2

TITLE: Technical Support Center
Activation

DATE: MAR 10 1983

PAGE 3 of 5

NOTE: The above log record shall include as a minimum the following:

- a. Date and Time
- b. Phone circuit used
- c. Messages received or sent
- d. Name of person information was received from or sent to
- e. Name and initials of person making entries

4.3.3 Inform the TSCD promptly of all information received from members of the Emergency Response Organization or support organizations.

FORM TSC-2.1

TSC ACTIVATION CHECKLIST

Instructions: Initial steps as performed and sign when complete.

1. Start time _____ Initials _____

2. Radiation Levels:

A. Obtain E-530 and do a battery check, calibration sticker check, and then measure radiation levels.

Reading _____ Initials _____

B. Obtain Radalert and push the test button to verify operation. If operable, set on lowest range that doesn't alarm.

Initials _____

3. Activate the data link to Prodac computer. Initials _____

4. Place the Tech. Support Center Ventillation System in the Recirculation Mode. (Form TSC-2.2)

Initials _____

5. Turn on TSC night bell to receive incoming calls until PBX switchboard is manned.

COMPLETED BY _____ DATE _____ TIME _____
(signature)

FORM TSC-2.2

INSTRUCTIONS FOR PLACING TSC VENTILATION
IN EMERGENCY OPERATION

1) Place TSC Pressurization Unit in Emergency Mode.

NOTE: Perform steps on Press. Unit Control Panel

- a) Push FAN STOP button
- b) Turn UNIT NORM/EMERG switch to emergency
- c) Wait 15 seconds - push FAN EMERGENCY/HIGH SPEED button

The following lights should be on:

- FAN EMERG/HIGH SPEED RUNNING
- FACE DAMPER D2 OPEN
- BYPASS DAMPER D1 CLOSED

2) Place TSC clean-up unit in operation

- a) Push FAN RUN button on clean-up unit control panel.

The following lights should be on:

- INLET DAMPER D12 OPEN
- UNIT FAN RUNNING

3) Close Ventillation Room Door and TSC stairwell doors.

NOTE: Carbon Filter Heaters should be turned on if greater than 70% humidity is indicated.

COMPLETED BY _____ DATE _____ TIME _____
(Signature)

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-TSC-3 REV. B

TITLE: Plant Status Procedure

DATE: MAR 10 1963 PAGE 1 of 6

REVIEWED BY

[Signature]

APPROVED BY

[Signature]

1.0 APPLICABILITY

This procedure provides a checklist of various plant parameters, equipment status, and radiological parameters to assist in the determining and maintaining cognizance of plant status.

2.0 PRECAUTIONS

2.1 Ensure Technical Support Center (TSC) instrumentation and parameter displays are activated and functional.

2.2 Ensure that the computer link to the plant computer is activated and functional.

3.0 REFERENCES

None

4.0 INSTRUCTIONS

4.1 Technical Support Center Director (TSCD)

4.1.1 Assign a TSC staff member as Operations Information Coordinator to perform "Plant Systems Status" checklist (Form TSC-3.1) and to review and update the checklist as changes in plant conditions warrant.

4.1.2 Assign a TSC staff member as Maintenance Information Coordinator to perform "Plant Equipment Status" checklist (Form TSC-3.2) and to review and update the checklist as changes in equipment status warrant.

4.1.3 Assign a TSC staff member as Radiological Information Coordinator to perform "Radiation, Meteorological and Personnel Safety Status" checklist (Form TSC-3.3) and to review and update the checklist as changes in plant conditions warrant.

4.1.4 Review and evaluate plant conditions and status checklists.

4.1.5 Inform the Emergency Director and other responsible Emergency Response Organization Directors as significant changes to plant conditions are noted.

4.2 Operations Information Coordinator

- 4.2.1 Complete Form TSC 3.1 and submit it to the TSCD for review and evaluation.
- 4.2.2 Continue to update Form TSC-3.1 by re-evaluating appropriate instrumentation.
- 4.2.3 Relay updated information to the TSCD.
- 4.2.4 Monitor Nuclear Core Hydraulics.
- 4.2.5 Update TSC Operational Status Board.
- 4.2.6 Perform continuous accident assessment functions.

4.3 Maintenance Information Coordinator

- 4.3.1 Complete Form TSC-3.2 and submit it to the TSCD for review and evaluation.
- 4.3.2 Continue to update Form TSC-3.2 by re-evaluating appropriate instrumentation and maintaining contact with Operations and Support personnel.
- 4.3.3 Relay updated information to the TSCD.
- 4.3.4 Monitor maintenance activities, current and planned.
- 4.3.5 Update TSC Maintenance Status Boards.

4.4 Radiological Information Coordinator

- 4.4.1 Complete Form TSC-3.3 and submit it to the TSCD for review and evaluation.
- 4.4.2 Continue to update Form TSC-3.3 by re-evaluating appropriate instrumentation and maintaining contact with RPO and Security personnel.
- 4.4.3 Relay updated information to the TSCD.
- 4.4.4 Monitor radiological and environmental activities.
- 4.4.5 Update TSC Environmental Information Status Board.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-TSC-3

TITLE: Plant Status Procedure

DATE: MAR 10 1983

PAGE 3 of 6

4.5 Emergency Design Change Coordinator

- 4.5.1 Track and implement the Emergency Design Change (EDC) procedure.
- 4.5.2 Ensure revised prints are updated and provided to the necessary plant groups.

OPERATING STATUS

EVENT:		
RCS/CORE	PRIMARY COOLING	EMERGENCY SYSTEMS
TIME: _____ TEMP: H/L _____ °F C/L _____ °F PRESS: _____ psi PZR LVL: _____ % T/C Peak: _____ °F S/R Counts: _____ SUBCOOLING MARGIN: _____ RCP STATUS A B	TIME: _____ S/G LVL 'A' _____ % (N/R W/R) 'B' _____ % S/G PRES. 'A' _____ psi 'B' _____ psi AFW FLOW 'A' _____ gpm 'B' _____ gpm STEAM RELIEF: COND/ATM _____ RHR Recirc Flow: _____ gpm Disch. Temp: _____ °F	TIME: _____ HPSI FLOW: _____ gpm LPSI FLOW: _____ gpm ACC. LVL: _____ % RSWT LVL: _____ % CONTAINMENT PRES: _____ psi LVL: _____ AREA MON: _____ SPRAY YES/NO
COMMENTS:	COMMENTS:	COMMENTS:

SAFEGUARD SYSTEM STATUS

TIME: _____

	MAT	RAT	TAT	D/G A	D/G B
ELECTRICAL					
BUS 1-5					
BUS 1-6					
OOS					

BATT.	Tr. A	Tr. B	_____
HPSI	Tr. A	Tr. B	_____
LPSI	Tr. A	Tr. B	_____
AFW Pumps	A	B T/D C	_____
CONT. SPRAY	Tr. A	Tr. B	_____
SERVICE WATER	1A1 1A2	1B1 1B2	_____
COMP COOL.	Tr. A	Tr. B	_____
CONT FAN COIL	'C' 'D'	'A' 'B'	_____
SPEC. VENT.	Tr. A	Tr. B	_____
SBV	Tr. A	Tr. B	_____

COMMENTS:

ENVIRONMENTAL STATUS

TIME:	_____		
WIND DIRECTION	11 m	_____	deg.
	55 m	_____	deg.
WIND SPEED	11 m	_____	mph
	55 m	_____	mph
TEMP DIFF.		_____	°F
STABILITY CLASS		_____	
EST. RELEASE DURATION		_____	HR.
WEATHER CONDITIONS	_____		
RELEASE RATES:	_____		
PROTECTIVE ACTION RECOMMENDATIONS:			

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-TSC-5 REV. A

TITLE: Technical Support Center
Communications

DATE: MAR 10 1983

PAGE 1 of 4

REVIEWED BY CB Ruel / M & M

APPROVED BY DMJ

1.0 PURPOSE

The purpose of this procedure is to describe the communication system and equipment utilized in the Technical Support Center during an emergency.

2.0 APPLICABILITY

This procedure will apply to any declared emergency as defined in EP-AD-2, Emergency Classification.

3.0 REFERENCES

- 3.1 Kewaunee Nuclear Power Plant Emergency Plan
- 3.2 EP-AD-17, Communications

4.0 REQUIREMENTS

4.1 PBX Extension Lines (tan wall or desk phones)

- 4.1.1 Four extension phones tie into the plant PBX telephone system.
- 4.1.2 Provides communication with the Control Room, Emergency Operations Facility (EOF), Radiological Analysis Facility (RAF), Site Access Facility (SAF), Operational Support Facility (OSF), the WPS Lakeshore Division Office and WPS Corporate Headquarters, by dialing assigned three digit extension numbers.

4.2 Unlisted Kewaunee Exchange Line

An additional exchange line is provided in the TSC to ensure outside communications if the PBX system should fail or outside lines are congested.

4.3 Ringdown Circuits (blue phones with call lights)

- 4.3.1 Six ringdown circuit telephones designed so that the receiver on each phone only has to be taken off the hook to cause a ring at the remote operating point.
- 4.3.2 Provides direct access to the Control Room, EOF, SAF, OSF, RAF and the WPS Lakeshore Division Office.

4.4 NRC Emergency Notification Telephone (red telephone)

Provides direct access to the NRC Operations Center in Bethesda, MD over a dedicated line in the NRC Emergency Notification System (ENS Hotline).

4.5 NRC Health Physics Network (yellow phone)

4.5.1 Communication system provided for NRC use only.

4.5.2 Provides direct communication to the NRC Health Physics Network.

4.5.3 Links together the NRC Operations Center, all NRC Regional Offices and all nuclear facilities.

4.6 National Warning System (NAWAS) [black phones]

Provides communications to the State Emergency Operating Center in Madison, the Kewaunee County Sheriff's Office, the Manitowoc County Emergency Operating Center and the State Weather Stations over a dedicated line.

4.7 Gai-tronics Paging System (gray telephone with gray receivers)

4.7.1 Provides means of broadcasting emergency alarms and announcements throughout the plant. Provides a semi-private message system which can be used throughout the plant except in the Site Access Facility (SAF).

4.7.2 Designed with five available circuits. In order to operate pick up the hand piece, select one of the five circuits, listen to ensure a clear circuit, depress button and announce slowly and clearly the name of the party you want to contact and which line he should use. Release the button and wait for the party to pick up that line.

5.0 RESPONSIBILITIES

5.1 Technical Support Center Director

5.1.1 Ensures the communication systems are manned upon activation of the TSC.

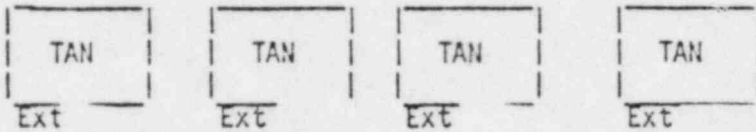
5.1.2 Ensures initial checks of communications are performed in accordance with EP-TSC-2, and the results of the checks are documented.

5.2 TSC Communicator

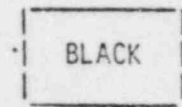
- 5.2.1 Performs initial checks of the communication system as directed by the TSC Director and EP-TSC-2, TSC Activation.
- 5.2.2 Performs notifications of personnel in accordance with EP-TSC-2.
- 5.2.3 Stands by to receive calls from other emergency response facilities, records the information and relays it to the TSC Director.

FORM TSC-5.1
TECHNICAL SUPPORT CENTER COMMUNICATIONS

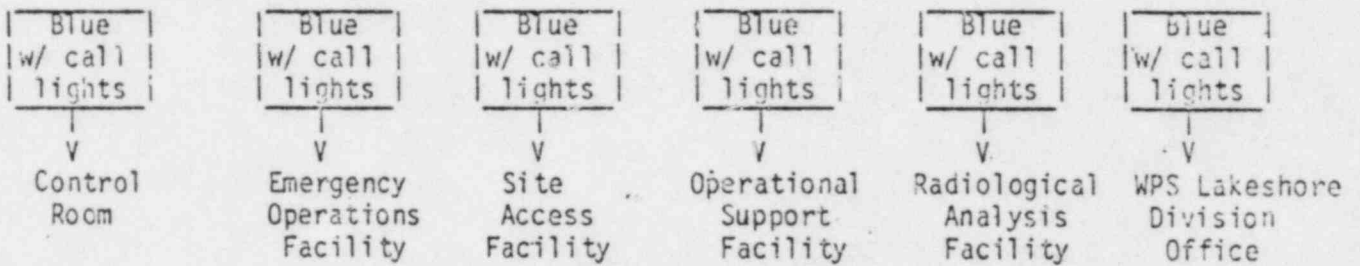
PBX Extension Lines



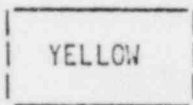
Kewaunee Unlisted Exchange Line



Ringdown Circuits

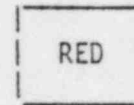


NRC



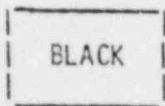
NRC Health Physics Network

NRC Emergency Notification System

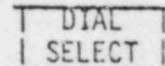


ENS Hotline
 NRC Operations Center
 Bethesda, Maryland

National Warning System (NAWAS)

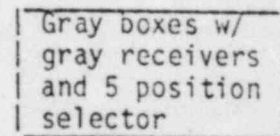


State Operating, Center, Madison, Wisconsin
 Kewaunee County Sheriff
 Manitowoc County EOC
 State Weather Stations



Kewaunee TSC
 EOF
 Kewaunee County EOC
 Manitowoc County EOC
 Point Beach TSC
 ALL CALL

Gai-tronics Paging System



Paging system throughout plant and to the Control Room, EOF, RAF, RPO, and OSF.

WISCONSIN PUBLIC SERVICE CORPORATION
KEWAUNEE NUCLEAR POWER PLANT
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-TSC-6 REV. A

TITLE: Assessment of Reactor
Core Damage

DATE: MAR 10 1983

PAGE 1 of 4

REVIEWED BY

RBB / *M L M*

APPROVED BY

DMA

1.0 PROCEDURE

This procedure provides characteristic plant parameters to assist in determining the extent of reactor core damage.

2.0 APPLICABILITY

This procedure applies when loss of reactor core cooling is suspected or reactor core cooling can no longer be maintained.

3.0 REFERENCES

- 3.1 E-0-10, Loss of Reactor Coolant
- 3.2 RC-C-86, Percentage Failed Fuel Calculations
- 3.3 EP-AD-2, Emergency Class Determination
- 3.4 Mitigating Reactor Core Damage - General Physics Corp.
- 3.5 NSAC-2, Mitigation of Small Break Loca in PWR Systems
- 3.4 NSAC-24, TMI-2 Accident - Core Heat-up Analysis
- 3.7 NSAC-28, Interpretation of TMI-2 Instrument Data

4.0 INSTRUCTIONS

- 4.1 The development of reactor core damage can be described in three stages:
 - 1) Initial Core Uncovering
 - 2) Core Uncovering in Progress/Core Uncovered
 - 3) Core Melting

4.2 Characteristics of Initial Core Uncovering

- 4.2.1 Temperature indications exceeding the saturation temperature in the RCS are a positive sign that core uncovering has begun. Incore thermocouples and the saturation meter provide the best indication of core coolant conditions.
- 4.2.2 Excore detectors (source range and intermediate range) will display deviations from expected post trip values. Variations in core water inventory produce competing effects from changes in core photo-neutron sources and shielding due to downcomer water. Increasing excore detector values are expected.
- 4.2.3 RCP's may begin to have unusual flow and power loadings (amperes) or vibrations until tripped.
- 4.2.4 Incore fission chambers can be used to determine areas of high fuel temperatures and heat generation.
- 4.2.5 Emergency Operating Procedure, Loss of Reactor Coolant (E-0-10), provides additional observables characteristic of a LOCA. (RCS pressure decreasing, containment pressure increasing, etc.)

4.3 Characteristics of Progressing Core Uncovery

- 4.3.1 RCS temperatures as indicated by Incore Thermocouples continue to exceed saturation temperature.
- 4.3.2 Fuel pins begin to rupture in hotter regions of the core (Fuel Temperatures 1400°F - 1600°F) releasing the gaseous and volatile fission products in the gap region.
- 4.3.3 Containment radiation monitor readings (R-2, R-7, and containment high radiation monitors) increase noticeably from previous levels due to the gap fission product release to containment. (Typically several percent of total core activity). Calculations indicate that between 100 and 300 mR/hr is expected for each fuel pin gap gaseous release. Therefore,

10 fuel pins gap release	1-3 R/hr
.1% fuel gap release	2-7 R/hr
1% fuel gap release	20-100 R/hr
10% fuel gap release	200-700 R/hr
100% fuel gap release	2000-7000 R/hr

NOTE: These values are only to be used as guidelines. Different monitor locations, geometries and responses preclude accurate quantitative assessment.

- 4.3.4 A more accurate failed fuel calculation can be obtained by analyzing a reactor coolant sample (RC-C-86, Percentage Failed Fuel Calculation).
- 4.3.5 Continued variations in excore detector response should not be used as the primary indication of core water level. Equivalent excore detector indications can be produced at two coolant levels. Decreasing detector values maybe indicative of core water level increasing or decreasing.
- 4.3.4 As core temperatures continue to increase above 1600°F, the zircaloy cladding and grid assemblies (Exxon fuel) would begin to react with water to form hydrogen. At greater than 2200°F, the oxidation will continue with water vapor.

Measurements of the hydrogen and oxygen fractions in containment can provide an estimate of the percent of zirconium that has been oxidized.

$$\text{Fraction clad oxidized} = [\text{Fraction H}_2 - 2(\text{Fraction O}_2) + .042] \times 421$$

NOTE: Use of only the indicated hydrogen fraction without correction for oxygen depletion may lead to non-conservative values.

- 4.3.7 Levels of hydrogen should be monitored to determine the likelihood of hydrogen combustion. At room temperature and 100% humidity.

<u>Hydrogen Concentration*</u>	<u>Possible Reaction</u>
0-4%	Non-combustible
4-18%	Combustible
18-59%	Explosive
59-75%	Combustible
75-100%	Non-combustible

* With high temperatures (300-500°F) and at least 50% humidity, oxygen content may limit combustion. A minimum of 4% oxygen is needed for flammability and 9% oxygen for detonability.

- 4.3.8 Incore fission chambers should continue to be used to detect any changes in core geometry. Loss of the cladding support may result in fuel relocation along support plates.

- 4.3.9 The Ag-In-Cd control rod material has a melting point of 1800°F, however this liquified alloy should remain in the stainless steel control rod cladding.
- 4.3.10 Increasing fuel temperatures cause additional fission products to diffuse through the fuel. Radiation monitor readings will continue to increase and saturation of some monitors will occur.
- 4.3.11 Subsequent pellet cooldown may cause fuel grain boundary fracturing and a substantial increase in overall diffusion, producing larger than expected radiation monitor readings.

4.4 Characteristics of Core Melting

- 4.4.1 Decreasing coolant level results in increasing temperatures.
- 4.4.2 As localized core areas reach temperatures of 2500°F stainless steel components may begin melting. The control rod cladding may release liquified Ag-In-Cd. Incore detector thimbles may fail allowing coolant or fission products movement to the seal table.
- 4.4.3 At 2700°F the zirconium oxidation becomes very vigorous.
- 4.4.4 At 3000°F fuel sintering occurs releasing approximately 40% of the fuel fission gas. Calculations using total core fission gas activities show that:

<u>Total Core Activity Released</u>	<u>Containment High Range Readings</u>
1%	10 ³ -10 ⁴ R/hr
10%	10 ⁴ -10 ⁵ R/hr
100%	10 ⁵ -10 ⁶ R/hr

- 4.4.5 At 3300°F zircaloy melting terminates the vigorous oxidation.
- 4.4.6 Continued heating may lead to localized mechanical failure in lower vessel head.
- 4.4.7 Fuel pellet melting occurs at approximately 5000°F.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-EOF-1 REV. G

TITLE: Corporate Staff Emergency-
Response Organization

DATE: MAR 10 1983 | PAGE 1 of 6

REVIEWED BY M. L. M.../D. S. N...

APPROVED BY C. K. ...

1.0 PURPOSE

This procedure describes the response of the Corporate Staff members to an activation of the Kewaunee Nuclear Power Plant Emergency Plan.

2.0 APPLICABILITY

This procedure applies to members of the Corporate Staff following their notification of the activation of the Emergency Plan.

3.0 REFERENCES

- 3.1 Emergency Plan Implementing Procedures (EPIPs).
- 3.2 Wisconsin Public Service Corporation Nuclear Emergency Public Information Plan.
- 3.3 Kewaunee Nuclear Power Plant Emergency Plan.

4.0 RESPONSIBILITIES

4.1 Emergency Response Manager (ERM)

4.1.1 If warranted, activates and provides the overall direction of the Emergency Response Organization and the Emergency Operations Facility (EOF).

| 4.1.2 Ensures that a designate for each position of the corporate
| emergency response organization (Table EOF-1.1) is notified.

| 4.1.3 Determines the extent of the corporate response required

| NOTE: The corporate staff response is based on the classification
| of the emergency event as determined by onsite personnel.

| 4.1.4 Establishes communications in accordance with EP-EOF-7,
| Communications Documentation.

4.1.5 Ensures offsite radiological accident assessment is being
performed and evaluates recommended protective actions
with the Environmental Protection Director (EPD).

| 4.1.6 Provides information via corporate management to the Nuclear
| Public Information Director (NPID) for dissemination to the
public.

4.1.7 Notifies appropriate offsite agencies of emergency status of the plant and any change in status as required in notification procedures (EP-EOF-3,4,5,6).

4.1.8 Directs the Admin/Logistic Director (A/LD) to provide for needed assistance and support from NSS suppliers, other utilities, AE/Consultants, and Federal, State and local agencies and other WPS personnel.

4.1.9 Ensures ambulance and medical services are available for accidents involving emergency response personnel which may occur outside the protected area.

4.2 Environmental Protection Director

4.2.1 Directs the radiological environmental survey and monitoring evolutions.

4.2.2 Provides the ERM with offsite dose parameters, dose predictions and recommended protective actions.

4.2.3 Assumes the responsibilities delineated in EP-ENV-1, Environmental Monitoring Team Organization.

4.2.4 Performs the actions delineated in EP-ENV-3A, Environmental Protection Director Actions and Directives.

4.3 Admin/Logistic Director (A/LD)

4.3.1 Coordinates the procurement of needed supplies and equipment.

4.3.2 Obtains additional manpower as necessary from support agencies.

4.4 Nuclear Public Information Director (NPID)

4.4.1 Disseminates information on plant conditions to the public.

4.4.2 Performs the assigned responsibilities described in Ref. 3.2.

5.0 REQUIREMENTS

5.1 Unusual Event

- 5.1.1 The ERM is notified by the plant staff of the emergency condition and, following verification, performs notifications in accordance with EP-EOF-3, Corporate Response to an Unusual Event.
- 5.1.2 The NPID issues routine news releases to inform the public as necessary.

5.2 Alert

- 5.2.1 The ERM, upon notification and verification of the emergency event, calls the Emergency Director to determine the severity of the emergency event. A determination of whether or not to activate EOF will be made. With this determination in mind, perform applicable notification in accordance with EP-EOF-4, Corporate Response to an Alert.
- 5.2.2 If warranted, the ERM will activate the EOF in accordance with EP-EOF-2, Emergency Operations Facility Activation.
- 5.2.3 The A/LD, when notified by the ERM that the EOF is being activated, performs required notifications in accordance with EP-EOF-4, Corporate Response to an Alert, and then proceeds to the EOF.
- 5.2.4 The EPD, when notified by the ERM that the EOF is being activated, performs required actions in accordance with EP-ENV-3A, Environmental Protection Director Actions and Directives.
- 5.2.5 The NPID, when notified by the ERM will initiate notifications in accordance with Ref. 3.2 and if requested, proceed to and activate the Joint Public Information Center (JPIC).
- 5.2.6 The ERM determines the amount of corporate response needed.
- 5.2.7 The ERM, upon being notified by the Emergency Director of the close out from the emergency event, commences deactivation of EOF or if required implements recovery operations per EP-AD-15, Recovery Planning.

5.3 Site Emergency

- 5.3.1 The ERM, upon notification and verification of a Site Emergency, will perform notifications in accordance with EP-EOF-5, Corporate Response to a Site Emergency.
- 5.3.2 If not previously activated, the ERM performs EOF activation in accordance with EP-EOF-2.
- 5.3.3 The ERM, upon completion of EOF activation, contacts the Emergency Director or his representative in the TSC to obtain an update on the condition of the emergency and assume offsite notification responsibility.
- 5.3.4 The A/LD, when notified of the Site Emergency, performs required notifications in accordance with EP-EOF-5, Corporate Response to a Site Emergency, and then proceeds to the EOF.
- 5.3.5 The EPD, when notified of the Site Emergency, performs required actions in accordance with EP-ENV-3A, Environmental Protection Director Actions and Directives.
- 5.3.6 The NPID, when notified of the Site Emergency, activates the JPIC and makes notifications in accordance with Ref. 3.2.
- 5.3.7 The ERM recommends to State and local governments protective action that need to be taken as a result of the event.
- 5.3.8 The ERM will provide information via the corporate management to the Nuclear Public Information Director.
- 5.3.9 The ERM, upon being notified of the close out from the emergency event, commences deactivation of EOF or if required implements recovery operations per EP-AD-15, Recovery Planning.

5.4 General Emergency

- 5.4.1 The ERM, upon notification and verification of a General Emergency, will perform notifications in accordance with EP-EOF-6, Corporate Response to a General Emergency.
- 5.4.2 If not previously activated, the ERM and performs EOF activation in accordance with EP-EOF-2, Emergency Operations Facility Activation.

- 5.4.3 The ERM provides the overall direction of the EOF, including recommendations to the State to initiate predetermined protective actions for the public.
- 5.4.4 The A/LD, when notified of the General Emergency, performs required notification in accordance with EP-EOF-6, Corporate Response to a General Emergency, and then proceeds to the EOF.
- 5.4.5 The EPD, when notified of the General Emergency, performs required actions in accordance with EP-ENV-3A, Environmental Protection Director Actions and Directives, and then proceeds to the EOF.
- 5.4.6 The NPID, when notified of the General Emergency, activates the JPIC and makes notifications in accordance with Ref. 3.2.
- 5.4.7 The ERM, upon being notified of the close out from the emergency event, commences deactivation of EOF or if required implements recovery operations per EP-AD-15, Recovery Planning.

TABLE EOF-1.1
 CORPORATE EMERGENCY ORGANIZATION
CORRELATION BETWEEN NORMAL AND EMERGENCY ORGANIZATION TITLES

<u>EMERGENCY ORGANIZATION TITLE</u>	<u>NORMAL ORGANIZATION TITLE</u>	
	<u>PRINCIPAL</u>	<u>ALTERNATE</u>
Emergency Response Manager	Manager-Nuclear Power	1. V. P. Nuclear Power 2. Nuclear Services Supv. 3. Nuclear Licensing and Systems Supervisor 4. Nuclear Administrative Supervisor
Environmental Prot. Director	Environmental Supervisor	1. Environ. Biologist 2. Environmental Analyst
Administrative/Logistics Director	Nuclear Services Supervisor	1. Nuclear Design Change Supervisor 2. Nuclear Technical Review Supervisor 3. Power Plant Design Supervisor 4. Nuclear Administrative Supervisor
Nuclear Public Information Director	Advertising and Public Information Director	

WISCONSIN PUBLIC SERVICE CORPORATION

Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-EOF-2

REV. D

TITLE: Emergency Operations Facility
(EOF) Activation

DATE: MAR 10 1983

PAGE 1 of 6

REVIEWED BY MLM/DS Nalupta

APPROVED BY [Signature]

1.0 APPLICABILITY

The EOF is activated for a Site Emergency, General Emergency, or at the discretion of the Emergency Response Manager (ERM).

2.0 PRECAUTIONS

None

3.0 REFERENCES

- 3.1 Kewaunee Nuclear Power Plant Emergency Plan.
- 3.2 EP-EOF-7, Communications and Documentation at EOF.
- 3.3 EP-AD-12, Personnel Assembly and Accountability

4.0 INSTRUCTIONS

4.1 Emergency Response Manager (ERM)

- 4.1.1 If applicable, contact the Control Room and obtain a list of any corporate directors who may have called in response to a pager activation.
- 4.1.2 Maintain an EOF logbook and record pertinent events and evolutions.
- 4.1.3 Verify that all communication lines are operational in accordance with Form EOF-2.2.
- 4.1.4 Verify that the proper equipment and supplies are located in the EOF. Complete Form EOF-2.1.

NOTE: The ERM will evaluate the results of the communications and supply checks and, at his discretion, determine whether the operational equipment is adequate to warrant EOF activation.

WISCONSIN PUBLIC SERVICE CORPORATION

Kewaunee Nuclear Power Plant

EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-EOF-2

TITLE: Emergency Operations Facility
(EOF) Activation

DATE: MAR 10 1983

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4.1.5 Notify the Emergency Director or his representative in the Technical Support Center that the EOF activation is completed and offsite notification is assumed by the ERM from the TSC at this time.

4.2 EOF Close Out

4.2.1 The ERM, upon notification from the Emergency Director or his representative of a close out of the event, will commence deactivation of EOF. Complete attached Form EOF-2.3.

FORM EOF 2.1
EOF EQUIPMENT CHECKLIST

ITEM	EQUIPMENT	NOMINAL QUANTITY	INITIAL WHEN VERIFIED
1	Emergency Plan	1	
2	Emergency Plan Implementing Procedures	1	
3	Technical Specifications	1	
4	Final Safety Analysis Report	1	
5	State of Wisconsin Peacetime Radiological Emergency Response Plan	1	
6	Kewaunee County Radiological Emergency Response Plan	1	
7	Manitowoc County Radiological Emergency Response Plan	1	
8	Operating Procedures	1	
9	Domestic Drawing Card Library (micro-film)	1	
10	Base Map (wall mounted)	1	
11	Sector Map (wall mounted)	1	

(ERM SIGNATURE)

FORM EOF 2.2

EMERGENCY OPERATIONS FACILITY COMMUNICATIONS CHECKLIST

Test all circuits to ensure operability and initial the checklist if satisfactory.
If any phones are inoperable contact the phone company at the appropriate number below:

- a) For outside line (starting with _____ call
- b) For ringdowns and plant extensions call

1) Ringdown Lines to:

- a) Technical Support Center _____
- b) Control Room _____
- c) Operational Support Facility _____
- d) Radiological Analysis Facility _____
- e) Site Access Facility _____
- f) Joint Public Information Center _____

2) Outside Phone Lines

NOTE: Determine operability of outside lines by verifying that a dial tone exists. The extensions are extensions of the KNPP inplant system.

(WPS Coordination Center)

- a) _____
- b) _____
- c) _____
- d) _____
- e) _____
- f) _____

(NRC Office)

- a) _____
- b) _____
- c) _____

(State Office)

- a) _____

(Security Desk)

- a) Ext. _____

FORM EOF 2.2

EMERGENCY OPERATIONS FACILITY COMMUNICATIONS CHECKLIST (cont.)

3) Radio Communications

- a) Test base unit to insure that messages can be transmitted and received by contacting the SAF using the base station in the transmission and intercom mode.

Base _____

Intercom _____

4) Emergency Notification System (red phone in WPS Coordination Center and NRC office)

- a) Upon acknowledgement from system operator that someone is on the circuit, say:

"This is (name) in the EOF at Kewaunee Nuclear requesting a phone test."

You should receive acknowledgement of test.

5) Health Physics Network (yellow phone in NRC office)

- a) Using message above test this circuit for proper operation for dialing after picking up the receiver.

Discrepancies:

Signature

FORM EOF 2.3
EOF CLOSE OUT CHECKLIST

Initial steps as performed and sign when complete.

INITIALS

1. Time of notification of event completion _____
(TIME)
2. Using Form EOF-2.1 as a reference, replace all EOF equipment
in proper storage location and list below equipment that needs to
be repaired or replaced. _____
3. Record EOF Deactivation Time: _____
4. Notify Emergency Director that closeout of EOF is complete. _____

(ERM Signature)

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-EOF-3 REV. F

TITLE: Corporate Response to an Unusual Event

DATE: MAR 10 1983 PAGE 1 of 3

REVIEWED BY M. L. M.../D.S. No.../D.S.

APPROVED BY A. Luoma

1.0 APPLICABILITY

1.1 This procedure is to be implemented upon the declaration of an Unusual Event, or at the request of the Emergency Response Manager.

2.0 PRECAUTIONS

2.1 If an emergency class escalation occurs during the notifications, proceed to the notification procedure for the new emergency classification.

3.0 REFERENCES

3.1 EP-EOF-1, Corporate Emergency Response Organization

3.2 EP-AD-17, Communications

3.3 EP-AD-15, Recovery Planning

4.0 INSTRUCTIONS

4.1 Emergency Response Manager (ERM) Actions

4.1.1 Initial Actions and Notifications

NOTE: Notifications may be performed by a communicator designated by the ERM.

a. If notified by pager, confirm contact with a telephone call to

b. Notify a designate for each of the corporate emergency positions. Telephone contact should be utilized, per Form EOF-3.1.A.

NOTE: Contacts made for information purposes only.

- c. Determine the need for corporate staff response. This determination may be based upon plant status or requests from plant personnel.

4.1.2 Escalation to Alert, Site Emergency or General Emergency

- a. Proceed to the notification procedure for the new emergency classification:
 1. Corporate Response to an Alert, EP-EOF-4
 2. Corporate Response to a Site Emergency, EP-EOF-5
 3. Corporate Response to a General Emergency, EP-EOF-6

4.1.3 Unusual Event Close Out

- a. Upon notification of Unusual Event close out from the Emergency Director, notify the previously contacted emergency position designates of the emergency close out and, if applicable, any recovery operations and document on Form ECF-3.1.B.

4.2 Nuclear Public Information Director (NPID) Actions

- 4.2.1 Upon notification from the ERM, perform normal press release actions in support of the Unusual Event.

FORM EOF-3.1

A. Initial Notification of Corporate Emergency Personnel

NUCLEAR PUBLIC INFORMATION DIRECTOR

OFFICE #

HOME #

INITIALS

Designate Contacted _____ Time _____

ENVIRONMENTAL PROTECTION DIRECTOR

Designate Contacted _____ Time _____

ADMIN/LOGISTICS DIRECTOR

Designate Contacted _____ TIME _____

NUCLEAR ADMINISTRATIVE SUPERVISOR

Time Contacted _____

B. Notification of Emergency Closeout

TIME

INITIALS

Nuclear Public Information Director

Environmental Protection Director

Admin/Logistics Director

Nuclear Administrative Supervisor

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-EOF-4 REV. G

TITLE: Corporate Response to ALERT

DATE: MAR 10 1983

PAGE 1 of 16

REVIEWED BY M L Moulton/DS Walpole

APPROVED BY [Signature]

1.0 APPLICABILITY

1.1 This procedure is to be implemented upon the declaration of an Alert, or at the request of the Emergency Response Manager.

2.0 PRECAUTIONS

2.1 If an emergency class escalation occurs during the notification, immediately implement the notification procedure for the new emergency classification.

2.2 All pager transmissions should be sent on both transmitters to ensure maximum area coverage - Kewaunee transmitter (plant ext _____, Green Bay transmitter (plant ext _____ r Green Bay ext _____)

2.3 All Green Bay pager transmissions must have the pager number preceded by a (1).

3.0 REFERENCES

3.1 EP-EOF-1, Corporate Emergency Response Organization

3.2 EP-AD-17, Communications

3.3 EP-EOF-2, Emergency Operations Facility Activation

3.4 EP-EOF-9, Interface with Support Organizations

3.5 EP-ENV-3A, Environmental Protection Director Actions and Directives

3.6 EP-ENV-3B, Environmental Monitoring Team Actions

3.7 EP-AD-15, Recovery Planning

3.8 Nuclear Emergency Public Information Plan

4.0 INSTRUCTIONS

4.1 Emergency Response Manager (ERM) Actions

NOTE: Notifications may be performed by a communicator designated by the ERM.

4.1.1 Initial Actions and Notifications

- a. Upon notification contact the Emergency Director to verify the alert condition and see if EOF activation is necessary.

NOTE: If notified by pager, confirm contact with a telephone call to the control room at -----

- b. Notify a designate for each of the corporate emergency positions and brief designates on plant status per Form EOF-4.1.A. Phone contact should be used if time permits.

NOTE: If unable to contact one person from each group by using home or office telephone numbers, activate the pager system per attached Table EOF-4 or call System Operating at ----- and provide your name and title and the names and titles of the individuals you wish to page. Also provide a brief (20 seconds) message to be broadcast over the pagers. System Operating personnel will attempt to contact these individuals via the paging system.

- c. If the decision is not to activate the EOF proceed to Step 4.1.1.j.

- d. If the EOF is to be activated:

1. Activate the EOF in accordance with EP-EOF-2 and,
2. As necessary, direct the Admin/Logistics Director to contact additional personnel to staff the EOF using phone numbers listed on Form EOF 4.3.
3. following completion of EP-EOF-2 continue this procedure with Step 4.1.1.e.

- e. If TSC has not already made the initial Alert notifications, notify the State and local governments using the NAWAS phone and document the contact on Form EOF-4.1.B.

The following statement should be given:

Kewaunee Nuclear calling Wisconsin Warning Center 1, East Central Area, Kewaunee County, and Manitowoc County. Please acknowledge.

Wait until all four areas have acknowledged, then continue. If any area fails to acknowledge, ask Warning Center 1 to ring that area.

All areas please take the following message:

This is (title) at the Kewaunee Nuclear Plant. An incident has occurred at our facility and we are declaring an Alert at (time) on (date).

There (has/has not) been a radiological release to the environment.

Off site consequences (are/are not) expected

Please relay this information to Emergency Government immediately.

Please verify this message by return telephone call to the appropriate number listed in your procedure.

Recommended protective actions are:

a. Not required at this time

b. Take shelter in the following areas:

(Location, sector and mile radius)

c. Other _____ in _____

(Recommended Action)

(Location)

in _____

(Recommended Action)

(Location)

Please acknowledge receipt of this message.

f. If the TSC has not already made the initial Alert notification notify the United States Coast Guard using commercial telephone lines with the text of the previous message and document the contact on Form EOF-4.1.C.

- g. Evaluate offsite radiological conditions with the EPD, RPD, and ED, and recommend protective actions, if warranted, to State and local authorities, per EP-ENV-3F, Protective Action Recommendations.
- h. Complete Form EOF-4.2 and provide status updates to support agencies at mutually agreed upon intervals.
- i. Brief the EOF staff periodically on the status of the emergency and pertinent plant conditions.
- j. Notify the Institute of Nuclear Power Operations (INPO) and inform them of the Alert condition, per Form EOF-4.1.D.
- k. Notify American Nuclear Insurers (ANI) and inform them of the Alert conditions per Form EOF-4.1.E.
- l. As necessary, direct the Admin/Logistics Director to perform any additional support organization notifications per EP-EOF-9, Interface with Support Organizations.

4.1.2 Alert escalation to a Site Emergency or General Emergency.

- a. Proceed to the notification procedure for the new emergency classification:
 - 1. Corporate response to a Site Emergency, EP-EOF-5.
 - 2. Corporate response to a General Emergency, EP-EOF-6.

4.1.3 Alert De-escalation to an Unusual Event

- a. Notify the corporate emergency directors of the emergency class change, per Form EOF-4.1.F.
- b. Notify the Institute of Nuclear Power Operations (INPO) of the emergency class change per Form EOF-4.1.G.
- c. Notify American Nuclear Insurers (ANI) of the emergency class change per Form EOF-4.1.H.
- d. If the EOF is activated, notify the support agencies with the NAWAS phone of the emergency class change and document the contact on Form EOF-4.1.I.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-EOF-4

TITLE: Corporate Response to ALERT

DATE: MAR 10 1983

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The following statement should be given:

Kewaunee Nuclear calling Wisconsin Warning Center 1, East Central Area, Kewaunee County, and Manitowoc County. Please acknowledge.

Wait until all four areas have acknowledged, then continue. If any area fails to acknowledge, ask Warning Center 1 to ring that area.

This is (title) at the Kewaunee Nuclear Power Plant. Conditions have improved and we have de-escalated the Alert to an Unusual Event at (time) on (date).

To repeat: The Alert has been de-escalated to an Unusual Event at (time) on (date). Relay this information to Emergency Government immediately. Please acknowledge receipt of this message.

- e. Notify the United States Coast Guard using commercial telephone lines with the text of the previous message and document the contact on Form EOF-4.1.J.

4.1.4 Alert Close Out

- a. Notify the corporate emergency directors of the emergency close out and if applicable any recovery operations per Form EOF-4.1.K.
- b. Notify the Institute of Nuclear Power Operations (INPO) of the emergency close out and if applicable any recovery operations per Form EOF-4.1.L.
- c. Notify American Nuclear Insurers (ANI) of the emergency close out and if applicable any recovery operations per Form EOF-4.1.M.
- d. If the EOF is activated, notify the support agencies using the NAWAS phone of the emergency close out and if applicable any recovery operations and document the contact on Form EOF-4.1.N.

The following statement should be given:

Kewaunee Nuclear calling Wisconsin Warning Center 1, East Central Area, Kewaunee County, and Manitowoc County. Please acknowledge.

Wait until all four areas have acknowledged, then continue. If any area fails to acknowledge, ask Warning Center 1 to ring that area.

This is (title) at the Kewaunee Nuclear Power Plant. We have closed out the Alert at (time) on (date). Recovery operations (are/are not) required.

To repeat: The Alert has been closed out at (time) on (date).

This verbal close out will be followed with a written summary within 8 hours.

Relay this information to Emergency Government immediately. Please acknowledge receipt of this message.

- e. Notify the United States Coast Guard using commercial telephone lines with the text of the previous message and document the contact on Form EOF-4.1.0.
- f. Perform EOF deactivation in accordance with Section 4.2 of EP-EOF-2, Emergency Operations Facility Activation.

4.2 Nuclear Public Information Director (NPID) Actions

- 4.2.1 Upon notification from the ERM, perform normal press release actions in support of the Alert condition.
- 4.2.2 If requested by the ERM, activate the Joint Public Information Center per reference 3.8. (Nuclear Emergency Public Information Plan).

4.3 Environmental Protection Director (EPD) Actions

- 4.3.1 Perform actions in accordance with EP-ENV-3A, Environmental Protection Director Actions and Directives.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-EOF-4

TITLE: Corporate Response to ALERT

DATE: MAR 10 1983

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4.4 Environmental Monitoring Team (EMT) Actions

4.4.1 Perform actions in accordance with EP-ENV-3B, Environmental Monitoring Team Actions.

4.5 Admin/Logistics Director (ALD) Actions

4.5.1 If notified by pager, confirm contact with a telephone call to the control room at

4.5.2 If informed of EOF activation by the ERM, contact support personnel (ie. recorder, communicator, clerical, etc.) per Form EOF-4.3 and proceed to the EOF.

4.5.3 Perform the actions necessary to obtain additional manpower, supplies and equipment as requested by the ERM in accordance with EP-EOF-9, Interface With Support Organizations.

Table EOF-4
PAGING SYSTEM OPERATION

- A.1 Tone and Voice Radio Pagers are assigned to personnel as shown with call numbers on the Emergency Call List. (See EP-AD-17).
- A.2 Whenever it is necessary to contact a person on the Emergency Call List and he is not on site, the home telephone number should be called first. If he cannot be reached at home, contact should then be attempted by using the person's individual call number. A group of individuals may be contacted by using the group call number. Tone and voice contact by pagers is effective within a 15 mile radius of the transmitting station. Only tone contacts can be made outside the 15 mile radius.

A.3 How to Place a Page

- 3.1 Determine the two digit pager code for the party or group you wish to contact from the pager assignment list.

PLANT EXTENSION PHONES

- 3.2 Dial the terminal access code on any plant extension.

Kewaunee site transmitter -

Green Bay transmitter -

- a. When the terminal answers and responds with a beep, go to step 3.3.
b. If you hear a "busy" signal, hang up and try again.

- 3.3 Dial the two digit pager code for the party or group you wish to contact from the pager assignment list.

NOTE: This number must be preceded by a "1" when using the Green Bay transmitter.

- 3.4 Listen for the acknowledge (beeping) tone, indicating page being transmitted.

- 3.5 When the beeping tone stops, speak your message to the called party. You have about 20 seconds to talk. Your allotted time has expired when you hear the "busy" tone returned to the telephone. Hang up the phone.

TABLE EOF-4 (cont'd)

GREEN BAY EXTENSION PHONES

- 3.6 Dial:
- a. For Kewaunee site transmitter -
 - b. For Green Bay transmitter -
- 3.7 When the terminal answers and responds with a beep, go to step 3.8.
- a. If you hear a "busy" signal, hang up and try again.
- 3.8 Dial the two digit pager code for the party or group you wish to contact from the pager assignment list.
- NOTE: This number must be preceded by a "1" when using the Green Bay transmitter.
- 3.9 Listen for the acknowledge (beeping) tone, indicating page being transmitted.
- 3.10 When the beeping tone stops, speak your message to the called party. You have about 20 seconds to talk. Your allotted time has expired when you hear the "busy" tone returned to the telephone. Hang up the phone.

FORM EOF-4.1

INITIAL NOTIFICATIONS

A. Notification of Corporate Emergency Personnel

NUCLEAR PUBLIC INFORMATION DIRECTOR

<u>Office #</u>	<u>Home #</u>	<u>Initials</u>
Designate Contacted _____	TIME _____	_____
<u>ENVIRONMENTAL PROTECTION DIRECTOR</u>	Indiv Pager	Group Pager

Designate Contacted _____ TIME _____
ADMIN/LOGISTICS DIRECTOR

Designate Contacted _____ TIME _____
NUCLEAR ADMINISTRATIVE SUPERVISOR

Time Contacted _____

B. NAWAS contact:	<u>Agency</u>	<u>Time</u>	<u>Initials</u>
	Warning Center 1	_____	_____
	East Central Area	_____	_____
	Kewaunee County	_____	_____
	Manitowoc County	_____	_____

FORM EOF-4.1 (cont'd)

C. Notification of United States Coast Guard: Day
 Night

Contact _____ Time _____ Initials _____

D. Notification of INPO:

Contact _____ Time _____ Initials _____

E. Notification of ANI:

Contact _____ Time _____ Initials _____

Notification of Emergency Class De-escalation

F. Nuclear Public Information Director	Time _____	Initials _____
Environmental Protection Director	Time _____	Initials _____
Admin/Logistics Director	Time _____	Initials _____
Nuclear Administrative Supervisor	Time _____	Initials _____

G. INPO

Contact _____ Time _____ Initials _____

H. ANI

Contact _____ Time _____ Initials _____

I. NAWAS Contact:

<u>Agency</u>	<u>Time</u>	<u>Initials</u>
Warning Center 1	_____	_____
East Central Area	_____	_____
Kewaunee County	_____	_____
Manitowoc County	_____	_____

J. Notification of United States Coast Guard:

Day
 Night

Contact _____ Time _____ Initials _____

FORM EOF-4.1 (cont'd)

Notification of Emergency Closeout

K. Nuclear Public Information Director	Time _____	Initials _____
Environmental Protection Director	Time _____	Initials _____
Admin/Logistics Director	Time _____	Initials _____
Nuclear Administrative Supervisor	Time _____	Initials _____

L. INPO

Contact _____ Time _____ Initials _____

M. ANI

Contact _____ Time _____ Initials _____

N. NAWAS Contact :

<u>Agency</u>	<u>Time</u>	<u>Initials</u>
Warning Center 1	_____	_____
East Central Area	_____	_____
Kewaunee County	_____	_____
Manitowoc County	_____	_____

O. Notification of United States Coast Guard:

Day

Night

Contact _____ Time _____ Initials _____

FORM EOF 4.2
STATUS UPDATE FORM

1. IDENTIFICATION

This is _____ the _____
(Name) (Title)

at the Kewaunee Nuclear Power Plant reporting the status of the (Unusual
Event/Alert/Site Emergency/General Emergency) in progress at _____
(Time of Call)
on _____
(Date)

2. STATUS

The following information is now available:

A. Plant

(1) Description of event _____
(Fire, Explosion, Pipe or Tank Rupture, etc.)

(2) Corrective action taken: _____

(3) Condition of Reactor (shutdown/not shutdown).

(4) Major equipment affected: _____

B. Plant Personnel

(1) Injuries (yes/no); if yes, number injured _____

(2) Contaminated personnel (yes/no); if yes number _____

(3) Overexposure to personnel (yes/none/possibility exists);
if yes, number _____

(4) Other potential or actual hazards _____

Form EOF-4.2 (cont'd)

C. Meteorological Conditions

- (1) Wind speed _____ (mph)
(2) Wind direction _____ degrees (from _____ to _____)
(Compass) (Compass)
(3) Stability class _____
(4) General weather conditions _____

D. Radiological Conditions Off-Site

(1) Release of radioactive material is (not expected/expected/in progress).

(2) (If applicable)

(a) Release of radioactive material (will start/has started)

at _____ on _____ and is expected to continue for
(Time) (Date)

(Hour/minutes)

(b) The radiological release is in (liquid/gaseous) form and is (controlled/uncontrolled).

(c) The release rate is estimated to be:

Iodine _____ Ci/sec

Noble gas _____ Ci/sec

(d) The projected arrival time for the plume at _____
miles down wind is _____
(Time)

(e) The projected dose at _____ miles down wind at plume
centerline is _____ Rem to the whole body and _____
Rem to the thyroid.

(f) (If applicable) Measured surface deposition is _____
(dpm/100 cm² or Ci/m²) at _____
(Location)

Form EOF-4.3

3. RECOMMENDED PROTECTIVE ACTIONS ARE:

A. None

B. Take shelter in following areas: _____
(Location, sector and miles radius)

C. Evacuate the following areas: _____
(Location, sector and miles radius)

D. Other _____ in _____
(Recommended Action) (Location)

_____ in _____
(Recommended Action) (Location)

4. Press releases from the JPIC in Two Rivers, Wisconsin (are/are not) planned.

5. Additional assistance required (yes/no). If yes:

A. _____ (Problem Area) _____ (Agency)

B. _____ (Problem Area) _____ (Agency)

C. _____ (Problem Area) _____ (Agency)

Assessment of plant conditions will continue. Further status update will be transmitted to you periodically, based on the change in plant conditions.

Time Notified

<u>Agency</u>	<u>Contact</u>	<u>Time/Date</u>	<u>Initials</u>	<u>Phone Numbers</u>
Wisconsin Emergency Operations Center	_____	_____	_____	_____
State Patrol - Fond du Lac or East Central Area EOC (If activated)	_____	_____	_____	_____
Kewaunee County Sheriff, or Kewaunee County EOC (If activated)	_____	_____	_____	_____
Manitowoc County Sheriff, or Manitowoc County EOC (if activated)	_____	_____	_____	_____

Form EOF-4.3

EOF SUPPORT PERSONNEL

Name

Office #

Home #

CLERICAL SUPPORT

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-EOF-5

REV. 0

TITLE: Corporate Response to a
Site Emergency

DATE: MAR 10 1983

PAGE 1 of 16

REVIEWED BY W.L. Muehle/DS Nalopkin

APPROVED BY C. Buonan

1.0 APPLICABILITY

1.1 This procedure is to be implemented upon the declaration of a Site Emergency or at the request of the Emergency Response Manager.

2.0 PRECAUTIONS

2.1 If an emergency class escalation occurs during the notification, immediately implement the notification procedure for the new emergency classification.

2.2 All pager transmission should be sent on both transmitters to ensure maximum area coverage - Kewaunee transmitter (plant ext Green Bay transmitter (plant ext or Green Bay ext

2.3 All Green Bay pager transmissions must have the pager number preceded by a (1).

3.0 REFERENCES

3.1 EP-EOF-1, Corporate Emergency Response Organization

3.2 EP-AD-17, Communications

3.3 EP-EOF-2, Emergency Operations Facility Activation

3.4 EP-EOF-9, Interface with Support Organizations

3.5 EP-ENV-3A, Environmental Protection Director Actions and Directives

3.6 EP-ENV-3B, Environmental Monitoring Team Actions

3.7 EP-AD-15, Recovery Planning

3.8 Nuclear Emergency Public Information Plan

4.0 INSTRUCTIONS

4.1 Emergency Response Manager (ERM) Actions

NOTE: Notifications may be performed by a communicator designated by the ERM.

4.1.1 Initial Actions and Notifications

- a. Upon notification contact the Emergency Director to verify that a Site Emergency exists.

NOTE: If notified by pager, confirm contact with a telephone call to (Control Room Communicator).

- b. Notify a designate for each of the corporate emergency positions and brief designates on plant status, per Form EOF-5.1.A. Phone contact should be used if time permits.

NOTE: If unable to contact one person from each group by using home or office telephone numbers, activate the pager system per attached Table EOF-5.1 or call System Operating at _____ and provide your name and title and the names and titles of the individuals you wish to page. Also provide a brief (20 seconds) message to be broadcast over the pagers. System Operating personnel will attempt to contact these individuals via the paging system.

- c. Activate the EOF by:

1. Activating the EOF in accordance with EP-EOF-2 and,
2. as necessary, direct the Admin/Logistics Director to contact additional personnel to staff the EOF with phone numbers listed on Form EOF 5.3.
3. following completion of EP-EOF-2 continue this procedure with Step 4.1.1.d.

- d. If TSC has not already made the initial Site Emergency notifications, notify the State and local governments using the NAWAS phone and document the contact on Form EOF-5.1.B.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-EOF-5

TITLE: Corporate Response to a
Site Emergency

DATE: MAR 10 1983

PAGE 3 of 16

The following statement should be given:

All areas please take the following message:

This is (title) at the Kewaunee Nuclear Plant. An incident has occurred at our facility and we are declaring a Site Emergency at (time) on (date).

There (has/has not) been a radiological release to the environment.

Off site consequences are expected.

Please relay this information to Emergency Government immediately.

Please verify this message by return telephone call to the appropriate number listed in your procedure.

Recommended protective actions are:

a. Not required at this time

b. Take shelter in the following areas:

(Location, sector and mile radius)

c. Evacuate the following areas:

(Location, sector and mile radius)

d. Other

(Recommended Action)

in

(Location)

(Recommended Action)

in

(Location)

Please acknowledge receipt of this message.

e. If the TSC has not already made the initial Alert notification notify the United States Coast Guard using commercial telephone lines with the text of the previous message and document the contact on Form EOF-5.1.C.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO.	EP-EOF-5	
TITLE:	Corporate Response to a Site Emergency	
DATE:	MAR 10 1983	PAGE 4 of 16

- f. Evaluate offsite radiological conditions with the EPD, RPD, and ED, and recommend protective actions, if warranted, to State and local authorities per EP-ENV-3F, Protective Action Recommendations.
 - g. Complete Form EOF-5.2 and provide status updates to support agencies at mutually agreed upon intervals.
 - h. Notify the Institute of Nuclear Power Operations (INPO) and inform them of the Site Emergency condition, per Form EOF-5.1.D.
 - i. Notify American Nuclear Insurers (ANI) and inform them of the Site Emergency condition per Form EOF-5.1.E.
 - j. As necessary, direct the Admin/Logistics Director to perform any additional support organization notifications per EP-EOF-9, Interface with Support Organizations.
 - k. Provide information via the corporate management to the Nuclear Public Information Director.
 - l. If requested, dispatch representative to the County Emergency Operations Center.
 - m. Brief the EOF staff periodically on the status of the emergency and pertinent plant conditions.
- 4.1.2 Site Emergency escalation to a General Emergency
- a. Proceed to notification procedure EP-EOF-6, Corporate Response to a General Emergency.
- 4.1.3 Site Emergency De-escalation to an Alert or Unusual Event
- a. Notify the corporate emergency directors of the emergency class change, per Form EOF-5.1.F.
 - b. Notify the Institute of Nuclear Power Operations (INPO) of the emergency class change per Form EOF-5.1.G.
 - c. Notify American Nuclear Insurers (ANI) of the emergency class change per Form EOF-5.1.H.
 - d. If the EOF is activated, notify the support agencies using the NAWAS phone of the emergency class change per Form and document the contact on Form EOF 5.1.I.

The following statement should be given:

Kewaunee Nuclear calling Wisconsin Warning Center 1, East Central Area
Kewaunee County, and Manitowoc County. Please acknowledge.

Wait until all four areas have acknowledged, then continue. If
any area fails to acknowledge, ask Warning Center 1 to ring that area.

This is (title) at the Kewaunee Nuclear Power Plant. Conditions
have improved and we have de-escalated the Site Emergency to an
Alert/Unusual Event at (time) on (date).

To repeat: The Site Emergency has been de-escalated to an
Alert/Unusual Event at (time) on (date). Relay this information to
Emergency Government immediately. Please acknowledge receipt of this
message.

- e. Notify the United States Coast Guard using commercial
telephone lines with the text of the previous message
and document the contact on Form EOF-5.1.J.

4.1.4 Site Emergency Close Out

- a. Notify the corporate emergency directors of the emergency
close out and if applicable any recovery operations per
Form EOF-5.1.K.
- b. Notify the Institute of Nuclear Power Operations (INPO)
of the emergency close out and if applicable any recovery
operations per Form EOF-5.1.L.
- c. Notify American Nuclear Insurers (ANI) of the emergency
close out and if applicable any recovery operations per
Form EOF-5.1.M.
- d. If the EOF is activated, notify the support agencies using
the NAWAS phone of the emergency close out and if applicable
any recovery operations and document the contact on Form
EOF-5.1.N.

The following statement should be given:

Kewaunee Nuclear calling Wisconsin Warning Center 1, East
Central Area, Kewaunee County, and Manitowoc County.
Please acknowledge.

Wait until all four areas have acknowledged, then continue. If
any area fails to acknowledge, ask Warning Center 1 to ring that area.

This is (title) at the Kewaunee Nuclear Power Plant. We have
closed out the Site Emergency at (time) on (date). Recovery
operations (are/are not required.)

To repeat: The Site Emergency has been closed out at (time)
on (date).

This verbal close out will be followed with a written summary within
8 hours.

Relay this information to Emergency Government immediately. Please
acknowledge receipt of this message.

- e. Notify the United States Coast Guard using commercial
telephone lines with the text of the previous message
and document the contact on Form EOF-5.1.0.
- f. Perform EOF deactivation in accordance with Section 4.2 of
EP-EOF-2, Emergency Operations Facility Activation.

4.2 Nuclear Public Information Director (PID) Actions

- 4.2.1 Upon notification from the ERM, perform normal press release
actions in support of the Site Emergency condition.
- 4.2.2 Activate the Joint Public Information Center per reference 3.8
(Nuclear Emergency Public Information Plan).

4.3 Environmental Protection Director (EPD) Actions

4.3.1 Perform actions in accordance with EP-ENV-3A, Environmental Protection Director Actions and Directives.

4.4 Environmental Monitoring Team (EMT) Actions

4.4.1 Perform actions in accordance with EP-ENV-3B, Environmental Monitoring Team Actions.

4.5 Admin/Logistics Director (ALD) Actions

4.5.1 If notified by pager, confirm contact with a telephone call to the Control Room at

4.5.2 If informed of EOF activation by the ERM, contact support personnel (i.e. recorder, communicators, clerical, etc.) per Form EOF-5.3 and proceed to the EOF.

4.5.3 Perform the actions necessary to obtain additional manpower, supplies and equipment as requested by the ERM in accordance with EP-EOF-9, Interface with Support Organizations.

TABLE ECF-5.1
PAGING SYSTEM OPERATION

- A.1 Tone and Voice Radio Pagers are assigned to personnel as shown with call numbers on the Emergency Call List. (See EP-AD-17).
- A.2 Whenever it is necessary to contact a person on the Emergency Call List and he is not on site, the home telephone number should be called first. If he cannot be reached at home, contact should then be attempted by using the person's individual call number. A group of individuals may be contacted by using the group call number. Tone and voice contact by pagers is effective within a 15 mile radius of the transmitting station. Only tone contacts can be made outside the 15 mile radius.
- A.3 How to Place a Page

- 3.1 Determine the two digit pager code for the party or group you wish to contact from the pager assignment list.

PLANT EXTENSION PHONES

- 3.2 Dial the terminal access code on any plant extension.
- Kewaunee site transmitter -
- Green Bay transmitter -
- a. When the terminal answers and responds with a beep, go to step 3.3.
- b. If you hear a "busy" signal, hang up and try again.
- 3.3 Dial the two digit pager code for the party or group you wish to contact from the pager assignment list.
- NOTE: This number must be preceded by a "1" when using the Green Bay transmitter.
- 3.4 Listen for the acknowledge (beeping) tone, indicating page being transmitted.
- 3.5 When the beeping tone stops, speak your message to the called party. You have about 20 seconds to talk. Your allotted time has expired when you hear the "busy" tone returned to the telephone. Hang up the phone.

TABLE EOF-5.1 (cont'd)

GREEN BAY EXTENSION PHONES

- 3.6 Dial:
 - a. For Kewaunee site transmitter -
 - b. For Green Bay transmitter -
- 3.7 When the terminal answers and responds with a beep, go to step 3.8.
 - a. If you hear a "busy" signal, hang up and try again.
- 3.8 Dial the two digit pager code for the party or group you wish to contact from the pager assignment list.

NOTE: This number must be preceded by a "1" when using the Green Bay transmitter.
- 3.9 Listen for the acknowledge (beeping) tone, indicating page being transmitted.
- 3.10 When the beeping tone stops, speak your message to the called party. You have about 20 seconds to talk. Your allotted time has expired when you hear the "busy" tone returned to the telephone. Hang up the phone.

FORM EOF-5.1

INITIAL NOTIFICATIONS

A. Notification of Corporate Emergency Personnel

NUCLEAR PUBLIC INFORMATION DIRECTOR

Office # Home # Initials

Designate Contacted _____ TIME _____

ENVIRONMENTAL PROTECTION DIRECTOR

Indiv / Group
Pager / Pager

Designate Contacted _____ TIME _____

ADMIN/LOGISTICS DIRECTOR

Designate Contacted _____ TIME _____

NUCLEAR ADMINISTRATIVE SUPERVISOR

Time Contacted _____

B. NAWAS contact:	<u>Agency</u>	<u>Time</u>	<u>Initials</u>
	Warning Center 1	_____	_____
	East Central Area	_____	_____
	Kewaunee County	_____	_____
	Manitowoc County	_____	_____

FORM EGF-5.1 (cont'd)

C. Notification of United States Coast Guard: Day
Night

Contact _____ Time _____ Initials _____

D. Notification of INPO:

Contact _____ Time _____ Initials _____

E. Notification of ANI:

Contact _____ Time _____ Initials _____

Notification of Emergency Class De-escalation

F. Nuclear Public Information Director	Time _____	Initials _____
Environmental Protection Director	Time _____	Initials _____
Admin/Logistics Director	Time _____	Initials _____
Nuclear Administrative Supervisor	Time _____	Initials _____

G. INPO

Contact _____ Time _____ Initials _____

H. ANI

Contact _____ Time _____ Initials _____

I. NAWAS Contact: Agency Time Initials

Warning Center 1 _____

East Central Area _____

Kewaunee County _____

Manitowoc County _____

J. Notification of United States Coast Guard:

Day
Night

Contact _____ Time _____ Initials _____

FORM EOF-5.1 (cont'd)

Notification of Emergency Closeout

K. Nuclear Public Information Director	Time _____	Initials _____
Environmental Protection Director	Time _____	Initials _____
Admin/Logistics Director	Time _____	Initials _____
Nuclear Administrative Supervisor	Time _____	Initials _____

L. INPO
Contact _____ Time _____ Initials _____

M. ANI
Contact _____ Time _____ Initials _____

N. NAWAS Contact: Agency	Time	Initials
Warning Center 1	_____	_____
East Central Area	_____	_____
Kewaunee County	_____	_____
Manitowoc County	_____	_____

I O. Notification of United States Coast Guard: Day -
Night -
Contact _____ Time _____ Initials _____

FORM EOF 5.2
STATUS UPDATE FORM

1. IDENTIFICATION

This is _____ the _____
(Name) (Title)

at the Kewaunee Nuclear Power Plant reporting the status of the (Unusual
Event/Alert/Site Emergency/General Emergency) in progress at _____
on _____ (Time of Call)
(Date)

2. STATUS

The following information is now available:

A. Plant

(1) Description of event _____
(Fire, Explosion, Pipe or Tank Rupture, etc.)

(2) Corrective action taken: _____

(3) Condition of Reactor (shutdown/not shutdown).

(4) Major equipment affected: _____

B. Plant Personnel

(1) Injuries (yes/no); if yes, number injured _____

(2) Contaminated personnel (yes/no); if yes number _____

(3) Overexposure to personnel (yes/none/possibility exists);
if yes, number _____

(4) Other potential or actual hazards _____

Form EOF-4.3

3. RECOMMENDED PROTECTIVE ACTIONS ARE:

A. None

B. Take shelter in following areas: _____
 (Location, sector and miles radius)

C. Evacuate the following areas: _____
 (Location, sector and miles radius)

D. Other _____ in _____
 (Recommended Action) (Location)

_____ in _____
 (Recommended Action) (Location)

4. Press releases from the JPIC in Two Rivers, Wisconsin (are/are not) planned.

5. Additional assistance required (yes/no). If yes:

A. _____ (Problem Area) _____ (Agency)

B. _____ (Problem Area) _____ (Agency)

C. _____ (Problem Area) _____ (Agency)

Assessment of plant conditions will continue. Further status update will be transmitted to you periodically, based on the change in plant conditions.

Time Notified

<u>Agency</u>	<u>Contact</u>	<u>Time/Date</u>	<u>Initials</u>	<u>Phone Numbers</u>
Wisconsin Emergency Operations Center	_____	_____	_____	_____
State Patrol - Fond du Lac or East Central Area EOC (If activated)	_____	_____	_____	_____
Kewaunee County Sheriff, or Kewaunee County EOF (If activated)	_____	_____	_____	_____
Manitowoc County Sheriff, or Manitowoc County EOF (if activated)	_____	_____	_____	_____
United States Coast Guard	_____	_____	_____	_____

Day:
 Night:

FORM EOF-5.3

EOF SUPPORT PERSONNEL

Name

Office #

Home #

CLERICAL SUPPORT

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-EOF-6

REV. G

TITLE: Corporate Response to a
General Emergency

DATE: MAR 10 1983

PAGE 1 of 16

REVIEWED BY M. B. ... / O. S. Nalepa

APPROVED BY CR ...

1.0 APPLICABILITY

1.1 This procedure is to be implemented upon the declaration of a General Emergency or at the request of the Emergency Response Manager.

2.0 PRECAUTIONS

2.1 All pager transmissions should be sent on both transmitters to ensure maximum area coverage - Kewaunee transmitter (plant ext. Green Bay transmitter (plant ext. or Green Bay

2.2 All Green Bay pager transmissions must have the pager number preceded by a (1).

3.0 REFERENCES

3.1 EP-EOF-1, Corporate Emergency Response Organization

3.2 EP-AD-17, Communications

3.3 EP-EOF-2, Emergency Operations Facility Activation

3.4 EP-EOF-9, Interface with Support Organizations

3.5 EP-ENV-3A, Environmental Protection Director Actions and Directives

3.6 EP-ENV-3B, Environmental Monitoring Team Actions

3.7 EP-AD-15, Recovery Planning

3.8 Nuclear Emergency Public Information Plan

4.0 INSTRUCTIONS

4.1 Emergency Response Manager (ERM) Actions

NOTE: Notifications may be performed by a communicator designated by the ERM.

4.1.1 Initial Actions and Notifications

- a. Upon notification contact the Emergency Director to verify that a General Emergency exists.

NOTE: If notified by pager, confirm contact with a telephone call to

- b. Notify a designate for each of the corporate emergency positions and brief designates on plant status per Form EOF-6.1.A. Phone contact should be used if time permits.

NOTE: If unable to contact one person from each group by using home or office telephone numbers, activate the pager system per attached Table EOF-6.1 or call System Operating at ----- and provide your name and title and the names and titles of the individuals you wish to page. Also provide a brief (20 seconds) message to be broadcast over the pagers. System Operating personnel will attempt to contact these individuals via the paging system.

- c. Activate the EOF by:

1. Activating the EOF in accordance with EP-EOF-2 and,
2. as necessary, direct the Admin/Logistics Director to contact additional personnel to staff the EOF with phone numbers listed on Form EOF 6.3.
3. following completion of EP-EOF-2 continue this procedure with Step 4.1.1.d.

- d. If TSC has not already made the initial General Emergency notifications, notify the State and local governments using the NAWAS phone and document the contact on Form EOF-6.1.B.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-EOF-6

TITLE: Corporate Response to a
General Emergency

DATE: MAR 10 1983

PAGE 3 of 16

The following statement should be given:

All areas please take the following message:

This is (title) at the Kewaunee Nuclear Plant. An incident has occurred at our facility and we are declaring a General Emergency at (time) on (date).

There (has/has not) been a radiological release to the environment.

Off site consequences are expected.

Please relay this information to Emergency Government immediately.

Please verify this message by return telephone call to the appropriate number listed in your procedure.

Recommended protective actions are:

a. Not required at this time

b. Take shelter in the following areas:

(Location, sector and mile radius)

c. Evacuate the following areas:

(Location, sector and mile radius)

d. Other _____ in _____

(Recommended Action)

(Location)

in _____

(Recommended Action)

(Location)

Please acknowledge receipt of this message.

- e. If the TSC has not already made the initial General Emergency notification, notify the United States Coast Guard using commercial telephone lines with the text of the previous message and document the contact on Form EOF-6.1.C.
- f. Evaluate offsite radiological conditions with the EPD, RPD, and ED and recommend protective actions, if warranted, to State and local authorities, per EP-ENV-3F, Protective Action Recommendations.
- g. Complete Form EOF 6.2 and provide status updates to support agencies at mutually agreed upon intervals.

- h. Notify the Institute of Nuclear Power Operations (INPO) and inform them of the General Emergency condition per Form EOF-6.1.D.
- i. Notify American Nuclear Insurers (ANI) and inform them of the General Emergency condition per Form EOF-6.1.E.
- j. As necessary, direct the Admin/Logistics Director to perform any additional support organization notifications per EP-EOF-9, Interface with Support Organizations.
- k. Provide information via the corporate management to the Nuclear Public Information Director.
- l. If requested, dispatch representative to the County Emergency Operations Center.
- m. Brief the EOF staff periodically on the status of the emergency and pertinent plant conditions.

4.1.2 General Emergency De-escalation to a (Site Emergency/Alert/or Unusual Event).

- a. Notify the corporate emergency directors of the emergency class change per Form EOF-6.1.F
- b. Notify Institute of Nuclear Power Operations (INPO) of the emergency class change per Form EOF-6.1.G.
- c. Notify American Nuclear Insurers (ANI) of the emergency class change per Form EOF-6.1.H.
- d. If the EOF is activated notify the support agencies, using the NAWAS phone, of the emergency class change and document the contact on Form EOF-6.1.I.

The following statement should be given:

Kewaunee Nuclear calling Wisconsin Warning Center I, East Central Area, Kewaunee County, and Manitowoc County. Please acknowledge.

Wait until all four areas have acknowledged, then continue. If any area fails to acknowledge, ask Warning Center I to ring that area.

This is (title) at the Kewaunee Nuclear Power Plant. Conditions have improved and we have de-escalated the General Emergency to a (Site Emergency/Alert/Unusual Event) at (time) on (date).

To repeat: The General Emergency has been de-escalated to a (Site Emergency/Alert/Unusual Event) at (time) on (date). Relay this information to Emergency Government immediately. Please acknowledge receipt of this message.

- e. Notify the United States Coast Guard, using commercial telephone lines with the text of the previous message and document the contact on Form EOF-6.1.J.

4.1.3 General Emergency Close Out

- a. Notify the corporate emergency directors of the emergency close out and if applicable any recovery operations per Form EOF-6.1.K.
- b. Notify the Institute of Nuclear Power Operations (INPO) of the emergency close out and if applicable any recovery operations per Form EOF-6.1.L.
- c. Notify American Nuclear Insurers (ANI) of the emergency close out and if applicable any recovery operations per Form EOF-6.1.M.
- d. If the EOF is activated, notify the support agencies, using the NAWAS phone, of the emergency close out and if applicable any recovery operations and document the contact on Form EOF-6.1.N.

The following statement should be given:

Kewaunee Nuclear calling Wisconsin Warning Center I, East Central Area, Kewaunee County, and Manitowoc County. Please acknowledge.

Wait until all four areas have acknowledged, then continue. If any area fails to acknowledge, ask Warning Center I to ring that area.

This is (title) at the Kewaunee Nuclear Power Plant. We have closed out the General Emergency at (time) on (date).

Recovery operations (are/are not) required.

To repeat: The General Emergency has been closed out at (time) on (date).

This verbal close out will be followed with a written summary within 8 hours.

Relay this information to Emergency Government immediately. Please acknowledge receipt of this message.

- e. Notify the United States Coast Guard, using commercial telephone lines, with the text of the previous message and document the contact on Form EOF-6.1.0
- f. Perform EOF deactivation in accordance with Section 4.2 of EP-EOF-2, Emergency Operations Facility Activation.

4.2 Nuclear Public Information Director (NPID) Actions

- 4.2.1 Upon notification from the ERM, perform normal press release actions in support of the General Emergency condition.
- 4.2.2 Activate the Joint Public Information Center per reference 3.8 (Nuclear Emergency Public Information Plan).

4.3 Environmental Protection Director (EPD) Actions

4.3.1 Perform actions in accordance with EP-ENV-3A, Environmental Protection Directors Action and Directives.

4.4 Environmental Monitoring Team (EMT) Actions

4.4.1 Perform actions in accordance with EP-EWV-3B, Environmental Monitoring Team Actions.

4.5 Admin/Logistics Director (ALD) Actions

4.5.1 If notified by pager, confirm contact with a telephone call to the control room at 1-388-2561.

4.5.2 If informed of EOF activation by the ERM, contact support personnel (i.e., recorder, communicators, clerical, etc.) per Form EOF-6.3 and proceed to the EOF.

4.5.3 Perform the actions necessary to obtain additional manpower, supplies and equipment as requested by the ERM in accordance with EP-EOF-9, Interface with Support Organizations.

TABLE EOF-6.1
PAGING SYSTEM OPERATION

- A.1 Tone and Voice Radio Pagers are assigned to personnel as shown with call numbers on the Emergency Call List. (See EP-AD-17).
- A.2 Whenever it is necessary to contact a person on the Emergency Call List and he is not on site, the home telephone number should be called first. If he cannot be reached at home, contact should then be attempted by using the person's individual call number. A group of individuals may be contacted by using the group call number. Tone and voice contact by pagers is effective within a 15 mile radius of the transmitting station. Only tone contacts can be made outside the 15 mile radius.
- A.3 How to Place a Page
- 3.1 Determine the two digit pager code for the party or group you wish to contact from the pager assignment list.

PLANT EXTENSION PHONES

- 3.2 Dial the terminal access code on any plant extension.
- Kewaunee site transmitter -
- Green Bay transmitter -
- a. When the terminal answers and responds with a beep, go to step 3.3.
- b. If you hear a "busy" signal, hang up and try again.
- 3.3 Dial the two digit pager code for the party or group you wish to contact from the pager assignment list.
- NOTE: This number must be preceded by a "1" when using the Green Bay transmitter.
- 3.4 Listen for the acknowledge (beeping) tone, indicating page being transmitted.
- 3.5 When the beeping tone stops, speak your message to the called party. You have about 20 seconds to talk. Your allotted time has expired when you hear the "busy" tone returned to the telephone. Hang up the phone.

TABLE EOF-6.1 (cont'd)

GREEN PAY EXTENSION PHONES

- 3.6 Dial:
 - a. For Kewaunee site transmitter -
 - b. For Green Bay transmitter -
- 3.7 When the terminal answers and responds with a beep, go to step 3.8.
 - a. If you hear a "busy" signal, hang up and try again.
- 3.8 Dial the two digit pager code for the party or group you wish to contact from the pager assignment list.

NOTE: This number must be preceded by a "1" when using the Green Bay transmitter.
- 3.9 Listen for the acknowledge (beeping) tone, indicating page being transmitted.
- 3.10 When the beeping tone stops, speak your message to the called party. You have about 20 seconds to talk. Your allotted time has expired when you hear the "busy" tone returned to the telephone. Hang up the phone.

FORM EOF-6.1

INITIAL NOTIFICATIONS

A. Notification of Corporate Emergency Personnel

NUCLEAR PUBLIC INFORMATION DIRECTOR

Office # Home # Initials

Designate Contacted _____ TIME _____

ENVIRONMENTAL PROTECTION DIRECTOR

Indiv Group
 Pager Pager

Designate Contacted _____ TIME _____

ADMIN/LOGISTICS DIRECTOR

Designate Contacted _____ TIME _____

NUCLEAR ADMINISTRATIVE SUPERVISOR

Time Contacted _____

B. NAWAS contact: Agency Time Initials

Warning Center 1	_____	_____
East Central Area	_____	_____
Kewaunee County	_____	_____
Manitowoc County	_____	_____

FORM EOF-6.1 (cont'd)

C. Notification of United States Coast Guard: Day
 Night

Contact _____ Time _____ Initials _____

D. Notification of INPO:

Contact _____ Time _____ Initials _____

E. Notification of ANI:

Contact _____ Time _____ Initials _____

Notification of Emergency Class De-escalation

F. Nuclear Public Information Director Time _____ Initials _____

Environmental Protection Director Time _____ Initials _____

Admin/Logistics Director Time _____ Initials _____

Nuclear Administrative Supervisor Time _____ Initials _____

G. INPO

Contact _____ Time _____ Initials _____

H. ANI

Contact _____ Time _____ Initials _____

I. NAWAS Contact: Agency Time Initials

Warning Center I _____

East Central Area _____

Kewaunee County _____

Manitowoc County _____

I J. Notification of United States Coast Guard: Day
 Night

Contact _____ Time _____ Initials _____

FORM EOF 6.2
STATUS UPDATE FORM

1. IDENTIFICATION

This is _____ the _____
(Name) (Title)

at the Kewaunee Nuclear Power Plant reporting the status of the (Unusual
Event/Alert/Site Emergency/General Emergency) in progress at _____
(Time of Call)
on _____
(Date)

2. STATUS

The following information is now available:

A. Plant

(1) Description of event _____
(Fire, Explosion, Pipe or Tank Rupture, etc.)

(2) Corrective action taken: _____

(3) Condition of Reactor (shutdown/not shutdown).

(4) Major equipment affected: _____

B. Plant Personnel

(1) Injuries (yes/no); if yes, number injured _____

(2) Contaminated personnel (yes/no); if yes number _____

(3) Overexposure to personnel (yes/none/possibility exists);
if yes, number _____

(4) Other potential or actual hazards _____

Form EOF-6.2 (cont'd)

C. Meteorological Conditions

- (1) Wind speed _____ (mph)
- (2) Wind direction _____ degrees (from _____ to _____)
(Compass) (Compass)
- (3) Stability class _____
- (4) General weather conditions _____

D. Radiological Conditions Off-Site

- (1) Release of radioactive material is (not expected/expected/in progress).
- (2) (If applicable)
- (a) Release of radioactive material (will start/has started)
at _____ on _____ and is expected to continue for
(Time) (Date)

(Hour/Minutes)
- (b) The radiological release is in (liquid/gaseous) form and is
(controlled/uncontrolled).
- (c) The release rate is estimated to be:
Iodine _____ Ci/sec
Noble gas _____ Ci/sec
- (d) The projected arrival time for the plume at _____
miles down wind is _____
(Time)
- (e) The projected dose at _____ miles down wind at plume
centerline is _____ Rem to the whole body and _____
Rem to the thyroid.
- (f) (If applicable) Measured surface deposition is _____
(dpm/100 cm² or Ci/m²) at _____
(Location)

Form EOF-6.3

3. RECOMMENDED PROTECTIVE ACTIONS ARE:

A. None.

B. Take shelter in following areas: _____
 (Location, sector and miles radius)

C. Evacuate the following areas: _____
 (Location, sector and miles radius)

D. Other _____ in _____
 (Recommended Action) (Location)

_____ in _____
 (Recommended Action) (Location)

4. Press releases from the JPIC in Two Rivers, Wisconsin (are/are not) planned.

5. Additional assistance required (yes/no). If yes:

A. _____ (Problem Area) _____ (Agency)

B. _____ (Problem Area) _____ (Agency)

C. _____ (Problem Area) _____ (Agency)

Assessment of plant conditions will continue. Further status update will be transmitted to you periodically, based on the change in plant conditions.

Time Notified

<u>Agency</u>	<u>Contact</u>	<u>Time/Date</u>	<u>Initials</u>	<u>Phone Numbers</u>
Wisconsin Emergency Operations Center	_____	_____	_____	_____
State Patrol - Fond du Lac or East Central Area EOC (If activated)	_____	_____	_____	_____
Kewaunee County Sheriff, or Kewaunee County EOF (If activated)	_____	_____	_____	_____
Manitowoc County Sheriff, or Manitowoc County EOF (if activated)	_____	_____	_____	_____
United States Coast Guard	_____	_____	_____	_____

Day:
 Night:

Form EOF-6.3

EOF SUPPORT PERSONNEL

Name

Office #

Home #

CLERICAL SUPPORT

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-EOF-7

REV. E

TITLE: Communications Documentation

DATE: MAR 10 1983

PAGE 1 of 3

REVIEWED BY W. L. Muehle/D. S. Nalopka

APPROVED BY C. J. Husman

1.0 APPLICABILITY

This procedure provides for the documentation of communication records in the Emergency Operation Facility (EOF) upon activation.

2.0 PRECAUTIONS

2.1 Ensure that communication lines are established or being repaired as required.

2.2 Ensure that appropriate records and logs are started and maintained as required.

3.0 REFERENCES

3.1 EP-AD-17, Communications

3.2 Kewaunee Nuclear Power Plant Emergency Plan

4.0 INSTRUCTIONS

4.1 Emergency Response Manager

4.1.1 Assign the necessary EOF staff member(s) to man EOF communication links.

4.1.2 Maintain a log record of all significant events and actions.

NOTE: The following is a list of information that should be considered for documentation in this log:

- a. Date and time
- b. Names of personnel assuming key positions in the emergency response organization
- c. Plant status and conditions
- d. Major steps taken during the emergency
- e. Important data received (i.e., results from dose projections and release calculations, results from radiation surveys, etc.).

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-EOF-7

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- f. Information exchanged with Federal, State, local and private organizations (i.e., protective action recommendations, class of emergency, projected doses, recommended emergency actions, request for any needed support, etc.).
- g. Time of closeout or reclassification of the emergency.

4.2 EOF Communicator(s)

- 4.2.1 Maintain a Communication Log Sheet containing information received from and sent to other Emergency Response Facilities and other support organizations. (See Form EOF-7, Telephone Communications Log Sheet.)
- 4.2.2 Inform the Emergency Response Manager of all information received from members of the Emergency Response Organization or support organizations.

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-EOF-9 REV. E

TITLE: Interface With
Support Organizations

DATE: MAR 10 1983 PAGE 1 of 3

REVIEWED BY M. L. Smith / D. S. Malopka

APPROVED BY Ch. H. H. H.

1.0 APPLICABILITY

This procedure is implemented upon determination that assistance of outside Support Organizations is needed to support the emergency response activities.

2.0 PRECAUTIONS

- 2.1 Ensure acknowledgement from Support Organizations of the assistance requested.
- 2.2 Document telephone conversations per EP-EOF-7, Communication and Documentation.

3.0 REFERENCES

- 3.1 Fluor Engineers, Inc., Emergency Response Plan
- 3.2 Westinghouse Electric Corporation, Emergency Response Plan, Water Reactors Division
- 3.3 State of Wisconsin, Peacetime Radiological Emergency Response Plan
- 3.4 Manitowoc County Radiological Emergency Response Plan
- 3.5 Kewaunee County Radiological Emergency Response Plan
- 3.6 Rad Services Inc., Agreement for Health Physics Services
- 3.7 Hazleton Environmental Services, Emergency Response Plan for Kewaunee Nuclear Power Plant

4.0 INSTRUCTIONS

4.1 Administrative Logistics Director

4.1.1 Radiological and Environmental Support

Contact Rad Services, Inc., or Hazleton Environmental Sciences per recommendations received from the RPD/EPD using the following numbers:

WISCONSIN PUBLIC SERVICE CORPORATION
Kewaunee Nuclear Power Plant
EMERGENCY PLAN IMPLEMENTING PROCEDURE

NO. EP-EOF-9

TITLE: Interface With
Support Organizations

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- a. Rad Services, Inc.
- b. Hazleton Environmental Sciences
 - 1. (office)
(home)
 - 2. (office)
(home)

NOTE: If additional contacts are needed, refer to Letter of Agreement, Appendix D, of Kewaunee Nuclear Power Plant Emergency Plan.

4.1.2 Engineering and Technical Support

Contact Westinghouse or Fluor Engineers Inc., per recommendations received from the Technical Support Center Director using the following numbers:

a. Westinghouse

(day)
(night)

(day)
(night)

b. Fluor Engineers Inc...

Director
(office)
(home)

, Alternate
(office)
(home)

4.1.3 Medical Assistance

If medical assistance is requested, contact the Kewaunee County Sheriff at the following:

Kewaunee County Sheriff

