

NRC 2003-0055

June 10, 2003

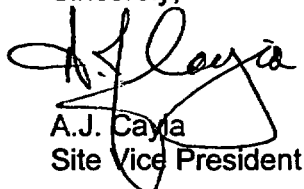
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U.S. Nuclear Regulatory Commission
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Ladies/Gentlemen:

DOCKETS 50-266 AND 50-301
EMERGENCY PLAN IMPLEMENTING PROCEDURE REVISIONS
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

Enclosed are copies of revised procedures to the Point Beach Nuclear Plant Emergency Plan.
The revised procedures dated May 21, 2003 should be filed in your copy of the manual.

Sincerely,



A.J. Cayla
Site Vice President

FAF/kmd

Enclosures

cc: NRC Resident Inspector (w/o/e)
Incident Response Center, Region III

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PROCEDURE NUMBER	PROCEDURE TITLE	REVISION NUMBER	EFFECTIVE DATE	PERIODIC REVIEW/ CANCELED DATE
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ORGANIZATIONAL CONTROL OF EMERGENCIES

1.0 DISCUSSION

This section of the Emergency Plan describes the organizational controls available to respond to an emergency. Authorities and responsibilities of key individuals and groups are delineated. Communication links for notifying, alerting, and mobilizing emergency personnel are described.

2.0 NORMAL PLANT ORGANIZATION

If both units are in a condition other than cold shutdown or refueling shutdown, each operating shift consists of 10 or 11 qualified individuals as shown in Figure 5-1.

- 2.1 The Shift Manager, who holds a Senior Reactor Operator (SRO) license, is in direct charge of all plant operations during his assigned shift and is directly responsible for actions of the crew.
- 2.2 Two Operating Supervisors hold Senior Reactor Operator (SRO) licenses.
- 2.3 Three Control Operators (COs) hold reactor operator licenses. (COs can also serve as AOs, if required.)
- 2.4 Three or four Auxiliary Operators (AOs) with no license required.
- 2.5 One Auxiliary Operator (AO) or Auxiliary Operator Trainee (AOT) for fire brigade manning.
- 2.6 There is at least one qualified Radiation Protection Technologist on each shift.
- 2.7 There is at least one qualified Radiochemical Technician on each shift.
- 2.8 One Shift Technical Advisor (STA) is available (within 10 minutes of the Control Room) to assist the Shift Manager in evaluation and assessment.
- 2.9 A Security Shift Commander is available to serve as a communicator.

If the Shift Manager determines that an Alert or higher emergency exists, the on-shift staff will assume an emergency mode of operation and the remaining Emergency Response Organization shall be activated. Initially, the on-shift staff will be augmented by critical positions that are designated in Figure 5-4 and 5-5. The goal is to accomplish this augmentation within 30 minutes.

Additional ERO personnel will be in place such that activation of TSC and EOF will be within one hour.

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The Shift Manager will direct plant response, assess and control the emergency, and initiate the required plant and offsite notifications in accordance with Figures 5-6 and 5-7. If the Shift Manager is incapacitated, the Operating Supervisor will assume the responsibility and authority of the Shift Manager (until relieved by a qualified individual) and coordinate the plant response, including the initiation of offsite notifications.

3.0 ONSITE EMERGENCY RESPONSE ORGANIZATION (ERO)

This section of the Emergency Plan describes the responsibilities of the onsite personnel during an event classified to be an Unusual Event or higher.

3.1 Direction and Coordination

The Shift Manager will be in the Control Room and maintain responsibility for operation of plant equipment and controls during emergency conditions other than fires. The Shift Manager's emergency classification will be determined by the EALs (Appendix B). The Shift Manager will assume the responsibility of the Emergency Director (ED) and continue to assess the emergency until relieved of this responsibility by a qualified Emergency Director. If the incident is classified as an Alert or higher, the appropriate emergency response facilities as shown in Figures 5-4 through 5-5 will be activated.

Upon activation of the TSC, the TSC Manager will assume responsibility for all onsite activities and personnel not directly related to plant operation. He will report to the Control Room initially for a briefing then transfer to and activate the TSC. The TSC Manager will coordinate activities involving the Control Room, TSC, OSC, and Security Building. The TSC will assume parallel emergency assessment responsibility with the Control Room and will evaluate plant conditions and onsite radiological conditions. Based upon this evaluation, the TSC Manager will recommend classification changes to the Emergency Director.

3.2 Plant Staff Emergency Assignments

Personnel are selected and assigned to fill ERO positions based on background training and experience. The organization for each emergency classification is shown in Figures 5-3 through 5-5. Appendix A lists a general summary of the emergency assignments, by title, responsibilities, and principle, working relationships. A brief description of the emergency organization at different emergency classes:

3.2.1 Unusual Event (Figure 5-3)

This emergency organization consists of normal shift personnel. Additional communications may be assigned as required. Appropriate procedures assigned to the Control Room will be accomplished under the direction of the Shift Manager. Staff augmentation for additional support will take place on a case-by-case basis.

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3.2.2 Alert (Figure 5-4)

Upon activation of the emergency response facilities, responsibility for classification, assessment, evaluation, and recovery will be transferred from the Shift Manager. The Operations Coordinator will assume responsibility for assessment and evaluation of the plant condition. Onsite radiation surveys and monitoring will be conducted under the direction of the Rad/Chem Coordinator. The Operations Support Center Coordinator will assume responsibilities for maintenance and repair coordination and search and rescue. Management personnel will coordinate any limited plant evacuation and ensure accountability of their personnel. The TSC and EOF will be activated in one hour. Offsite radiation surveys will be initiated as necessary from the OSRPF under the coordination of the Offsite Radiation Protection Coordinator. These surveys will be under the direction of the Dose/PAR Coordinator in the EOF. Upon activation of the EOF, the Emergency Director will assume overall responsibility for the emergency response and recovery. A liaison will be provided to state and local government agencies EOCs to assist in communications.

Other personnel also report to the TSC and EOF to assist in the emergency response operations. Additional personnel will provide logistic, administrative, and scheduling support. These personnel will ensure 24-hour continuity for minimum staff positions. In addition, the JPIC will activate to provide periodic updates to the media and public.

3.2.3 Site and General Emergency (Figure 5-5)

In addition to the actions taken at an Alert, to ensure accountability of personnel within the protected area, an assembly and accountability of all personnel within the protected area and exclusion areas will be initiated. Non-essential personnel will be released, if conditions allow. An evacuation of non-essential personnel to offsite assembly areas may be initiated if radiological or other hazards require additional actions.

In addition to actions taken for a Site Emergency, a General Emergency may require extensive amounts of external resources. To ensure this, the NMC headquarters may be contacted to provide or assist with offsite technical support.

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4.0 OFFSITE EMERGENCY RESPONSE

This section describes offsite supporting assistance available to the onsite staff emergency response organization.

4.1 We Energies (We-Owner Company) and Nuclear Management Company (NMC-Operating Company) Relationship and Support

Most emergency response organization (ERO) positions are filled by personnel assigned to the Point Beach Nuclear Plant (PBNP). The PBNP normal operations staffing, as shown in Figure 5-2, has available the technical and administrative support services of the NMC and We management and support organizations as outlined in the Nuclear Power Plant Operating Services Agreement (NPPOSA). The Emergency Director will identify situations where additional assistance is needed and will relay the emergency assistance information to NMC management for evaluation.

The NMC will provide to, or obtain assistance for, the onsite emergency organization as required. These responsibilities include, but are not limited to:

- 4.1.1 Providing senior company management support to the plant emergency organization.
- 4.1.2 Providing funds necessary to implement the PBNP Emergency Plan.
- 4.1.3 Providing contract security management direction and support for offsite facilities.
- 4.1.4 Coordinating the restoration and/or operation of all generation, transmission, and distribution facilities.
- 4.1.5 Monitoring reentry and/or recovery operations, post-accident planning, and assisting as requested.
- 4.1.6 Assisting with post-accident investigation and review responsibilities.
- 4.1.7 Providing general assistance for environmental monitoring.

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4.2 Local Services Support

During the operation of PBNP, it may become necessary to request and utilize assistance provided by local organizations and agencies. Since it is essential that support from these organizations and agencies be available, the following agreements and understandings have been made. (Letters of Agreement are referenced in Appendix D.)

4.2.1 Two Creeks Volunteer Fire Department

When requested, the Two Creeks Volunteer Fire Department will provide fire fighting assistance at PBNP.

4.2.2 Town of Two Creeks

The Township of Two Creeks will make available to PBNP, the Two Creeks Town Hall to be used as required during an emergency at PBNP.

4.2.3 Aurora Medical Center - Manitowoc County

The Aurora Medical Center - Manitowoc County will provide medical assistance to PBNP personnel. The agreement provides for the treatment of personnel who suffer injuries complicated by radioactive contamination or radiation. Individuals may be transferred to the University Hospital and Clinics in Madison, Wisconsin, should the treatment required extend beyond the capabilities of the Aurora Medical Center - Manitowoc County. The Aurora Medical Center - Manitowoc County will maintain the capability and facilities to provide decontamination, first aid, and emergency stabilization medical treatment to injured personnel from PBNP. These services and facilities are available 24 hours a day.

4.2.4 City of Two Rivers

The City of Two Rivers will provide ambulance service to transport injured persons from PBNP.

4.2.5 University of Wisconsin Hospital and Clinics

The University of Wisconsin Hospital and Clinics will accept and provide treatment to personnel with injuries beyond the capabilities of the Aurora Medical Center - Manitowoc County, even if complicated by radioactive contamination. The University of Wisconsin Hospital and Clinics are available 24 hours a day for treatment or consultation.

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4.2.6 Aurora - Two Rivers Clinic

At least two licensed physicians of the Aurora Health Care Affiliation in Manitowoc County, Wisconsin, will provide medical supervision and care for employees of PBNP who have medical conditions complicated by exposure to radiation. Both doctors have received training qualifying them to care for this type of patient. These affiliations consist of Aurora Medical Center, Manitowoc County Aurora - Two Rivers Clinic and Aurora - Manitowoc Clinic.

4.2.7 Manitowoc County Sheriff's Department

When alerted, the Manitowoc County Sheriff's Department will respond within 10-20 minutes and will:

- a. Assist in controlling traffic for the duration of the emergency.
- b. Assist the PBNP staff in keeping members of the general public from entering the PBNP exclusion area.
- c. Provide assistance in security-related matters.
- d. Implement protective actions as directed by Wisconsin Emergency Management (WEM).
- e. Provide augmented notification capability.
- f. Provide for dispatch of ambulance services.

4.2.8 Wisconsin Public Service Corporation

The Kewaunee Nuclear Power Plant (KNPP) laboratory facility will provide assistance for radiological and chemical sample analysis for air, water and other needed samples during a radiological emergency at PBNP. KNPP will provide the use of their site boundary facility (SBF) located about one mile west of KNPP if the PBNP SBCC is unavailable.

NMC/We and WPS have an agreement to jointly use the facilities located at the WPS Green Bay Division Office, 700 North Adams Street, Green Bay, WI, as a Joint Public Information Center and as an alternate location for the PBNP Emergency Operations Facility.

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4.2.9 Kewaunee County Sheriff's Department

When alerted, the Kewaunee County Sheriff's Department will respond within 10-20 minutes, and will:

- a. Assist in controlling traffic for the duration of the emergency.
- b. Assist the PBNP staff in keeping members of the general public from entering the PBNP exclusion area.
- c. Provide assistance in security-related matters.
- d. Implement protective actions as directed by Wisconsin Emergency Management (WEM).

4.2.10 Mishicot Area Ambulance Service

Mishicot Area Ambulance Service will provide ambulance service to transport injured persons from PBNP.

4.2.11 National Weather Service

The National Weather Service will provide backup meteorological data for PBNP should our instrumentation become inaccessible or inoperable.

4.2.12 Westinghouse Electric Corporation

Upon request, Westinghouse will provide emergency technical assistance, including equipment and/or services, in support of PBNP in the unlikely event of an emergency.

4.2.13 INPO

In the event of an emergency, INPO will provide resources to assist in acquiring the help of other industry organizations.

4.2.14 Bechtel Power Corporation

Upon request, Bechtel will provide technical assistance to PBNP.

ORGANIZATIONAL CONTROL OF EMERGENCIES

5.0 COORDINATION WITH PARTICIPATING AGENCIES

This section identifies the principal state agency (designated state authority) and other governmental agencies (local, state, and federal) having planning and/or implementation responsibilities for emergencies in the PBNP emergency planning zone.

5.1 State and Local Agencies

5.1.1 Wisconsin Department of Military Affairs, Wisconsin Emergency Management (WEM)

The Administrator of WEM, Department of Military Affairs, has been designated by the Governor of the State of Wisconsin as the state officer to assume the primary responsibility and authority for radiological emergency response planning. WEM is to exercise principal supportive roles, in addition to other state agencies, whose involvement will be coordinated by WEM. WEM will brief the governor as to the situation and actions taken by the federal, state, and local agencies and activate the state emergency operating center (EOC) in the Department of Military Affairs Office Building in Madison, if necessary.

5.1.2 Wisconsin Department of Health and Family Services, Radiation Protection Section (RPS)

The Radiation Protection Section (RPS), Department of Health and Family Services, under the Radiation Protection Act, WIS STATS 140.50 to 140.60, is responsible for preventing exposure to ionizing radiation in amounts which are detrimental to health according to nationally accepted standards. The state designates a State Radiological Coordinator (SRC) of the State Radiological Response Team for peacetime radiological emergencies. The SRC is experienced in the area of radiological health and is a staff member of the Radiation Protection Section. Team members are personnel of the Section as designated by the SRC, augmented by selected personnel from the WEM and other state agencies trained specifically for radiological incidents. They will do the following: conduct an initial survey to determine direct radiation levels and/or the severity and extent of the contaminated area, including soil, food and crop samples by taking readings and samples for analysis and making food chain dose estimates; advise how decontamination of the area should be accomplished; and assist in checking the evacuees of an involved area for contamination or exposure.

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5.1.3 Wisconsin Department of Transportation, Division of State Patrol (SP)

The Wisconsin State Patrol supports the Division of Highways and local law enforcement services directing vehicular and pedestrian movement out of and around the area of the incident, controlling access into the area and providing security at the site. Besides mobile radios in all Division of Enforcement and Inspection vehicles, the Office of Transportation Safety has a communication van which can serve as a forward command post at the site. Each district has a supply of walkie-talkies on a dedicated frequency that is available through emergency police services for local and state emergency communications at the site of an incident. The SP is available for courier service, by motor vehicle, for taking the state radiological response team to the site, and delivering samples to the State Laboratory of Hygiene for analysis, if necessary, to expedite the response.

5.1.4 Wisconsin Department of Natural Resources, Division of Enforcement

The conservation wardens of the Division of Enforcement, Department of Natural Resources, can support the local law enforcement services as does the SP. Selected department personnel receive training in ingestion sampling procedures. The wardens have mobile radios in their cars on the SP frequency. The Department can provide courier service, by motor vehicles and plane, to take the State Radiological Response Team to the site if necessary to expedite the response.

5.1.5 Wisconsin Department of Transportation, Division of Highways

The Division of Highways, Department of Transportation, is responsible, when so ordered by the Administrator of WEM, for implementing the Emergency Highway Traffic Regulation Plan when, as a result of a radiological incident, a large area is cordoned off by the law enforcement services and vehicular traffic is directed to other roads.

5.1.6 Wisconsin Department of Agriculture, Trade and Consumer Protection

Under the Hazardous Substances Act, 100.37, the Department can ban the sale of foods which have harmful levels of radioactivity. The Department can advise the use, sale, or disposal of animal feeds containing harmful levels of radioactive contamination. Selected department personnel receive training in ingestion sampling procedures. The Department can gather samples of milk and crops to determine radionuclide and related stable element concentrations, and can advise dairies as to the disposition of milk, farmers as to the feeding of their cows, and growers as to restoring land to productivity. Arrangements can be made by the Department with respect to handling of animals exposed to radioactive contamination.

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5.1.7 Wisconsin Department of Military Affairs

Section 21.11 of the Wisconsin Statutes contains the authority for the governor to order all or any part of the Wisconsin National Guard personnel and/or equipment into active State service for public emergencies, disturbances or disasters. Because of the relatively short duration and reaction time needed in a radiological incident, the National Guard, under the Department of Military Affairs, will be involved in such incidents only if the size of the area involved requires their support. The National Guard could provide additional traffic control, communications, emergency provisions of food, radiological monitoring and decontamination services. The Army National Guard has helicopters stationed in Madison and West Bend. If so ordered by the governor, these can provide aerial reconnaissance and surveillance, insertion of personnel and equipment, aerial evacuation, aerial supply, illumination, communications, and command and control. The Air National Guard has fixed wing aircraft at Madison and Milwaukee and, if so ordered by the governor, could provide services similar to the helicopters with the exception of take-off and landing capabilities and providing illumination. Additional radiation monitoring equipment maintained and operated by the U.S. Army is available at armories throughout the state. Nearly every one of the 72 company-sized units has a 2-5 man team trained in chemical-radiological procedures. In addition, the Two Rivers National Guard Armory is available, if needed, for use as an alternate offsite assembly area for plant and support personnel.

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5.1.8 Manitowoc and Kewaunee County

Under the provisions of the Wisconsin Statutes 22.16 and the Manitowoc and Kewaunee County Emergency Government Ordinances, authorities of both counties have the responsibility and authority to coordinate offsite emergency activities in the event of a radiological incident. Each county has prepared a County Emergency Operations Plan to carry out this responsibility which is applicable to emergencies at PBNP. These plans are referenced in Appendices F and G.

Upon notification of an emergency at PBNP which requires participation of local or county agencies, each county will activate its emergency organization. Each emergency organization is under the direction of the county board chairman and is composed of representatives from various participating agencies which include, but are not limited to, the county sheriff, county emergency government director, county highway commissioner, fire fighting organizations, and school administrators. The Manitowoc and Kewaunee County Emergency Organization will provide or assist the emergency response activities by the following:

- a. Provide notification to county and support agencies and local area residents that an incident has occurred at PBNP, if necessary.
- b. Provide liaison and communication capabilities with the plant facility and appropriate federal, state and local organizations.
- c. Assist in providing release of accurate public information concerning the offsite consequences of the emergency through all available media. In addition, advise and instruct area residents on what protective actions should be taken.
- d. Assist in providing for medical treatment, health and sanitation services, and mass care for members of the general public.
- e. Assist in the evacuation of affected offsite locations, if such an action should be required.

5.1.9 Local Water Supply Utilities

In the unlikely event that an accidental discharge of liquid radioactive material occurs into Lake Michigan which exceeds prescribed limits, notification that the event has occurred will be made to the municipal water utilities of Two Rivers, Manitowoc and Green Bay, as well as the State of Wisconsin Emergency Management. These notifications will be made as soon as possible, but no later than 12 hours after the initial start of the release.

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5.2 Federal Government

Should an emergency situation or accident occur at PBNP, notification, reports, or requests for assistance may be made to various federal agencies and organizations. Details for notifying and making reports to these agencies, as well as for requesting and obtaining assistance, are provided in the EPIPs. The following agencies may, as the situation warrants, require notification or reports, or provide assistance if required:

5.2.1 NRC Operations Headquarters, Rockville, Maryland

The NRC requires notification as stated in Section 6.0 below.

5.2.2 Nuclear Regulatory Commission (NRC)

Region III Office

5.2.3 Department of Energy (DOE)

The DOE in Region 5 has agreed to provide radiological assistance upon request. This request can be made by the Wisconsin Emergency Management. The Radiological Assistance Team can be expected to respond within 6 hours as directed by the Chicago Operations Office of DOE.

5.2.4 United States Coast Guard

The U.S. Coast Guard can supply local weather information, if necessary.

The U.S. Coast Guard, when requested by the cognizant state or local emergency response agency, will make a marine broadcast and issue a Notice to Mariners, warning all craft of the danger in the area. (Contents of the broadcast to be supplied by the cognizant emergency response agency.)

The U.S. Coast Guard, if requested by the Federal Emergency Management Agency or its designated representative will consider additional assistance on a case-by-case basis. The decision to commit Coast Guard resources will be made by the Commander, Ninth Coast Guard District.

6.0 NUCLEAR REGULATORY COMMISSION (NRC) NOTIFICATION

Telephone notification of the NRC Headquarters and NRC Region III shall be made as soon as possible, for any significant event as listed in 10 CFR 50.72 and 10 CFR 73. Notification of the NRC under this section does not necessarily mean the Emergency Plan has been implemented.

ORGANIZATIONAL CONTROL OF EMERGENCIES

7.0 METHODS OF NOTIFICATION

7.1 Notification of Offsite Agencies

The methods used for notification of offsite agencies are described in the EPIPs. The EPIPs provide for an established message authentication scheme for each emergency classification, guidance on assuring and verifying that each agency is notified, and an incident report form for each emergency classification. The incident report form provides for message verification and information for the initial and follow-up messages. The initial messages contain information about the location of incident, name of caller, date/time of incident, class of emergency, whether a release is taking place potentially affected population and areas, and whether protective actions may be necessary. The follow-up messages contain the basic information from the initial message with the following additional information if it is known and appropriate: the type and form of any actual or projected radiological release; meteorological conditions; estimate of quantity of radioactive material released or being released; actual or projected doses in the affected sector(s); surface contamination measurements; emergency response actions in progress; recommended emergency actions, including protective measures; request for any needed onsite support by offsite organizations; and prognosis for worsening or termination of the emergency.

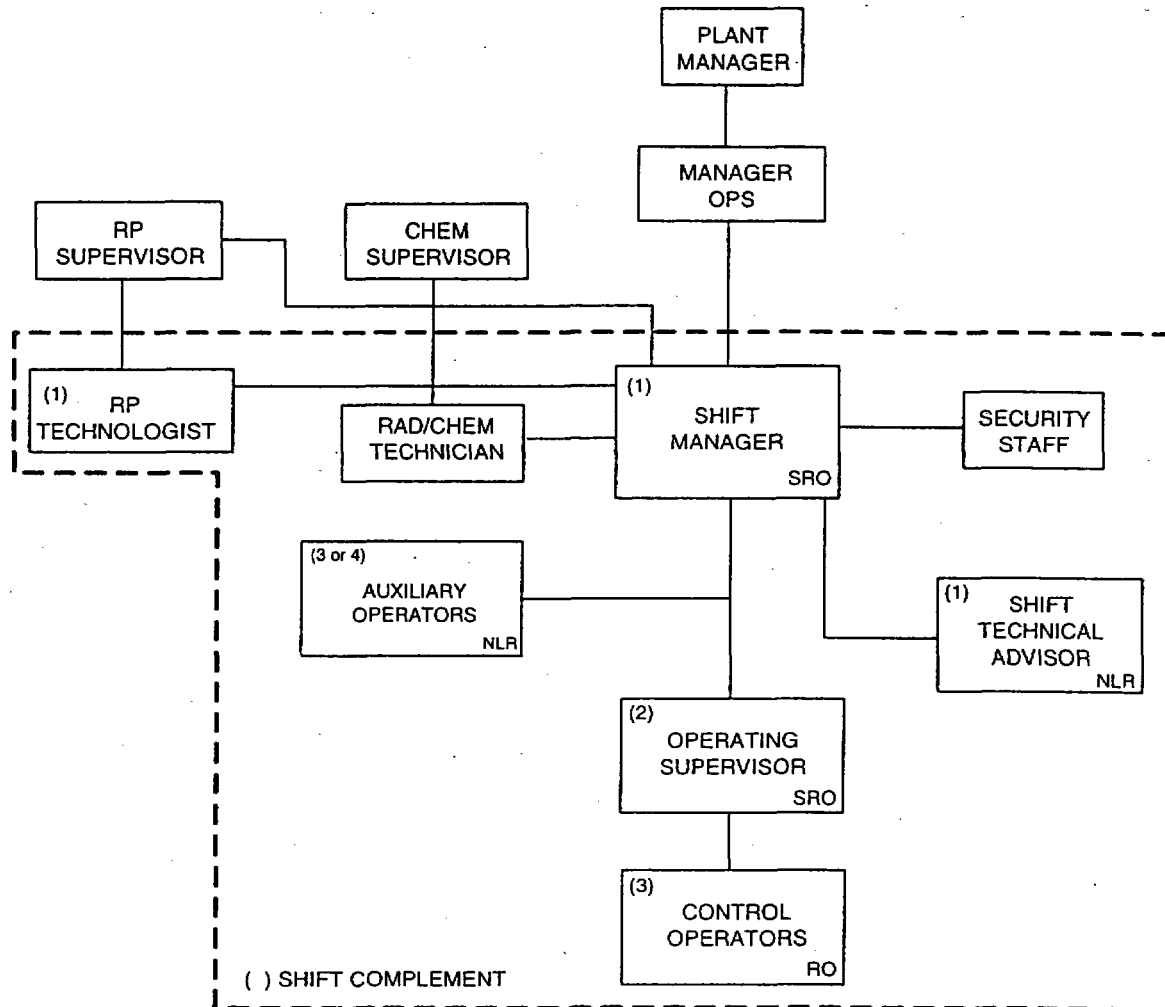
State and County Emergency Management agencies shall be contacted within 15 minutes of the classification and notified of any of the four emergency classes. Figure 5-7 describes the primary notification and coordination of offsite agencies during emergencies. Communications capabilities are discussed in EP 7.0 of this Emergency Plan.

7.2 Notification of the General Public

The general public will be notified through normal methods including press releases and news conferences of the lesser emergency classifications where protective actions are not required of the general public. In emergencies which may require some protective actions to be taken by the general public, notification will be accomplished by the Manitowoc and Kewaunee County Sheriff's Departments and the State of Wisconsin Emergency Management. The primary method of notifying residents in the affected area would be by a siren system as described in EP 7.0, Section 9.0, and police and emergency vehicles driving in the area with high power or "yelp" sirens on, mobile public address systems, and door-to-door personal contact. This notification procedure will commence with the population within the area of greatest risk and continue with the balance of the population within the EPZ as required. The actual notification and protective action message will be transmitted over local emergency alerting system.

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FIGURE 5-1
NORMAL PLANT OPERATING ORGANIZATION



SRO - SENIOR REACTOR OPERATOR
RO - REACTOR OPERATOR
NLR - NO LICENSE REQUIRED

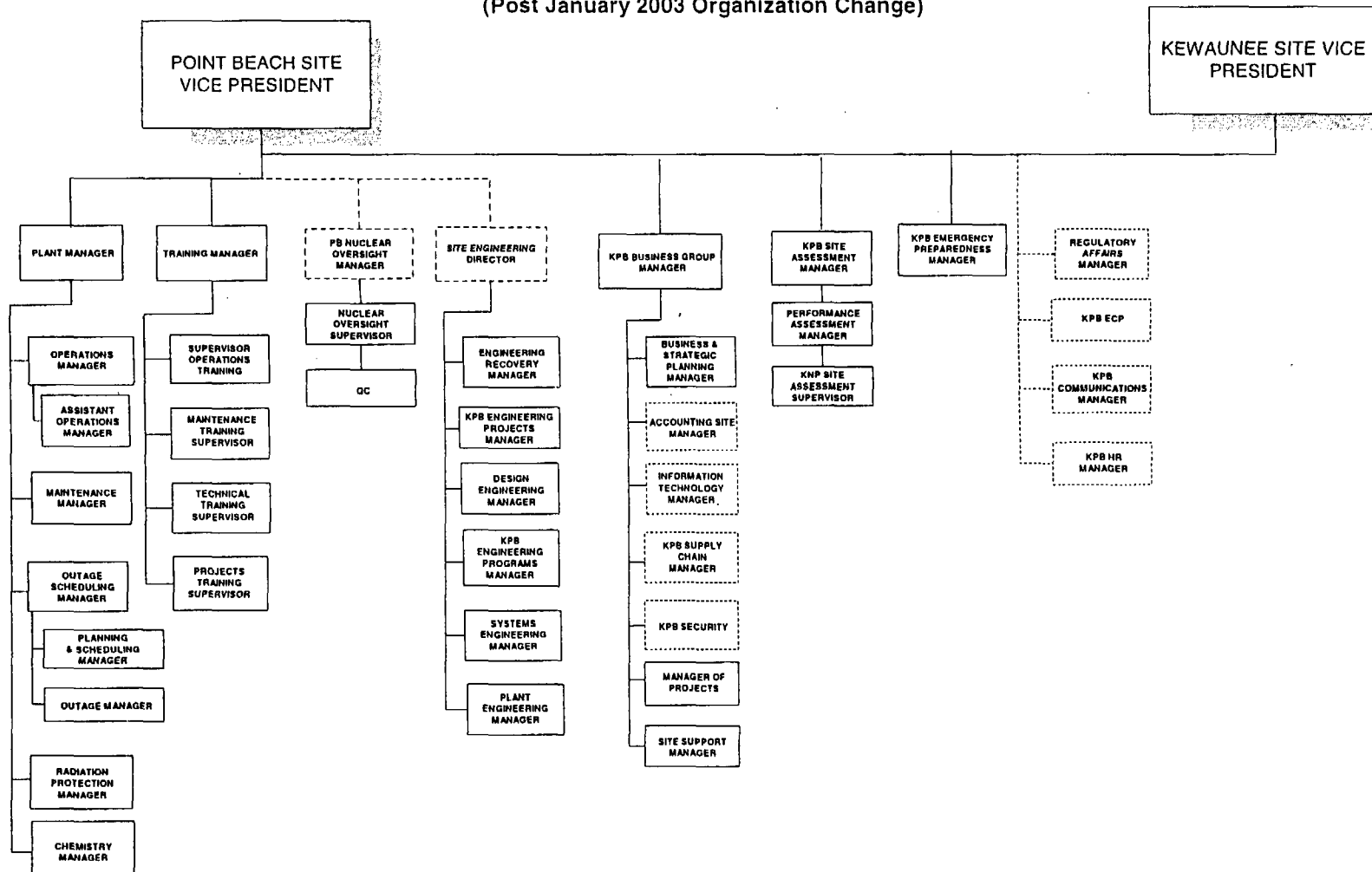
NOTES:

1. THE OPERATING GROUP SHIFT MAKEUP IS THE MINIMUM SIZE FOR OPERATION IN ALL MODES EXCEPT WITH A UNIT DEFUELED. THE OPERATIONS GROUP SHIFT MAKEUP MAY BE LESS THAN THE REQUIREMENTS FOR A PERIOD OF TIME NOT TO EXCEED 2 HOURS IN ORDER TO ACCOMMODATE UNEXPECTED ABSENCE OF ON-DUTY SHIFT CREW MEMBERS, PROVIDED IMMEDIATE ACTION IS TAKEN TO RESTORE THE SHIFT MAKEUP TO WITHIN THE MINIMUM REQUIREMENTS.
2. AN UNEXPECTED ABSENCE OF A SHIFT TECHNICAL ADVISOR SHALL BE TREATED SIMILARLY TO NOTE 1. THE SHIFT TECHNICAL ADVISOR IS LOCATED ONSITE ON TEN MINUTE CALL TO THE CONTROL ROOM.

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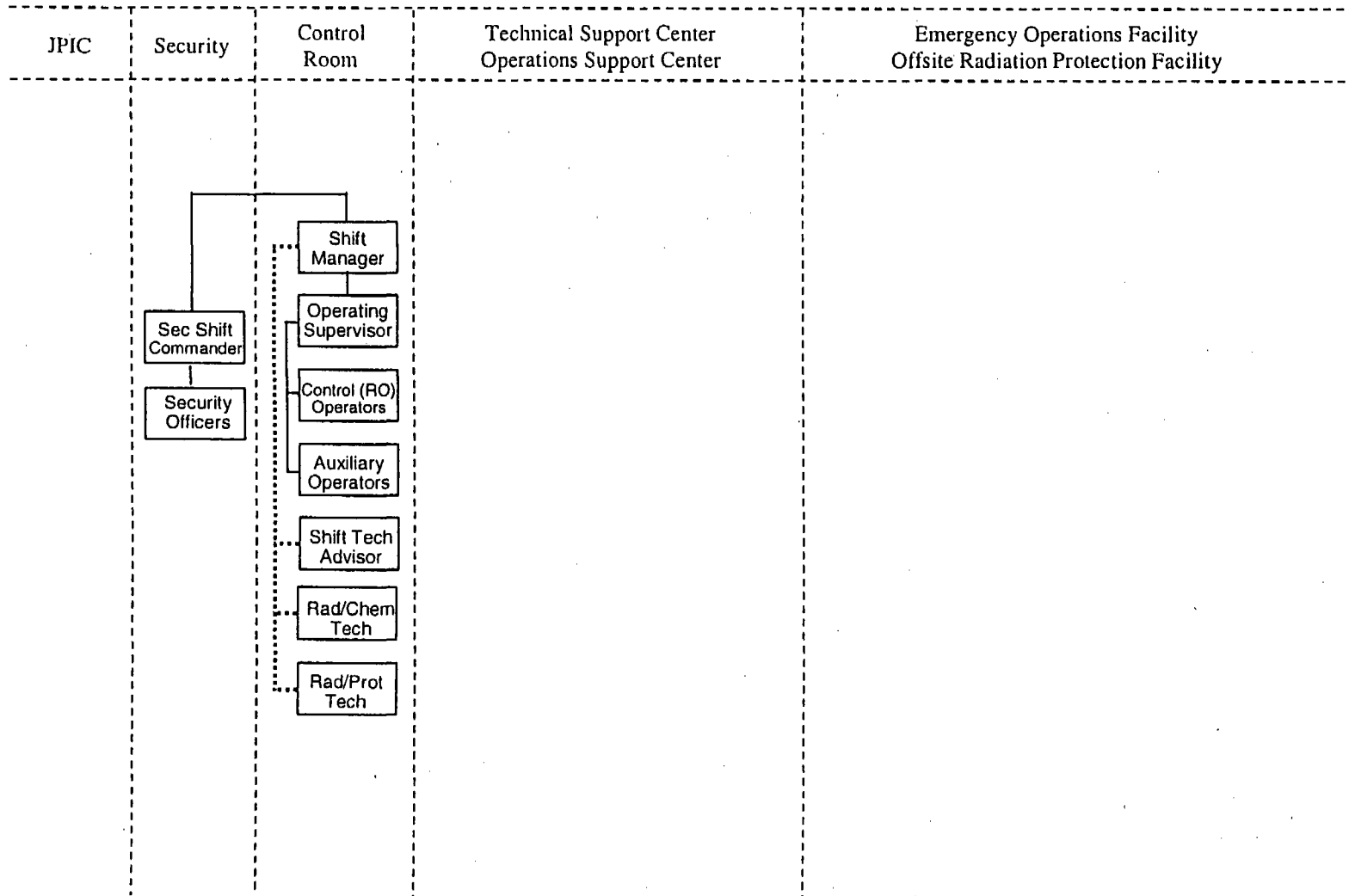
FIGURE 5-2
PBNP ORGANIZATION - NORMAL OPERATIONS

POINT BEACH NUCLEAR ORGANIZATION
(Post January 2003 Organization Change)



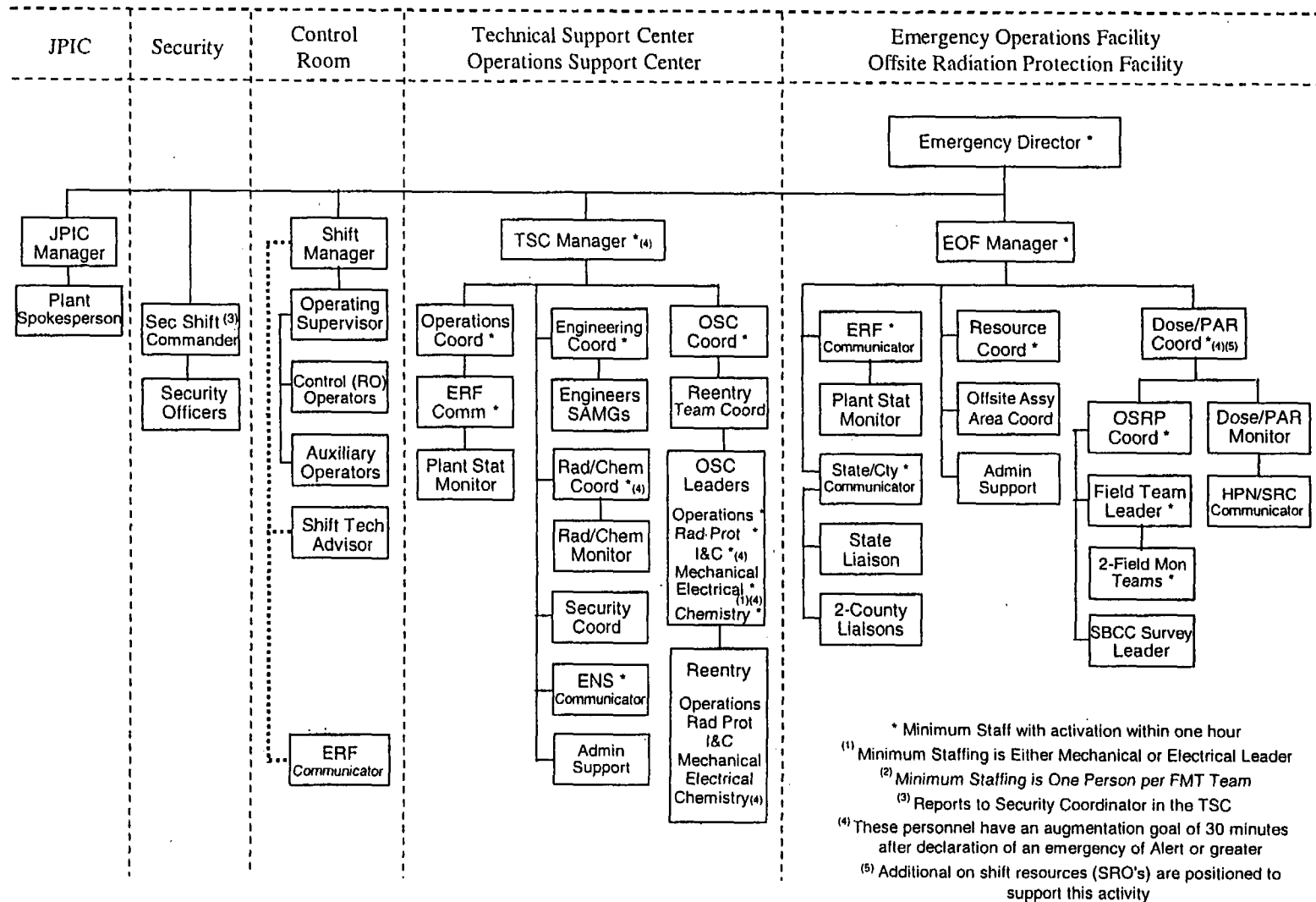
ORGANIZATIONAL CONTROL OF EMERGENCIES

FIGURE 5-3
EMERGENCY ORGANIZATION - UNUSUAL EVENT



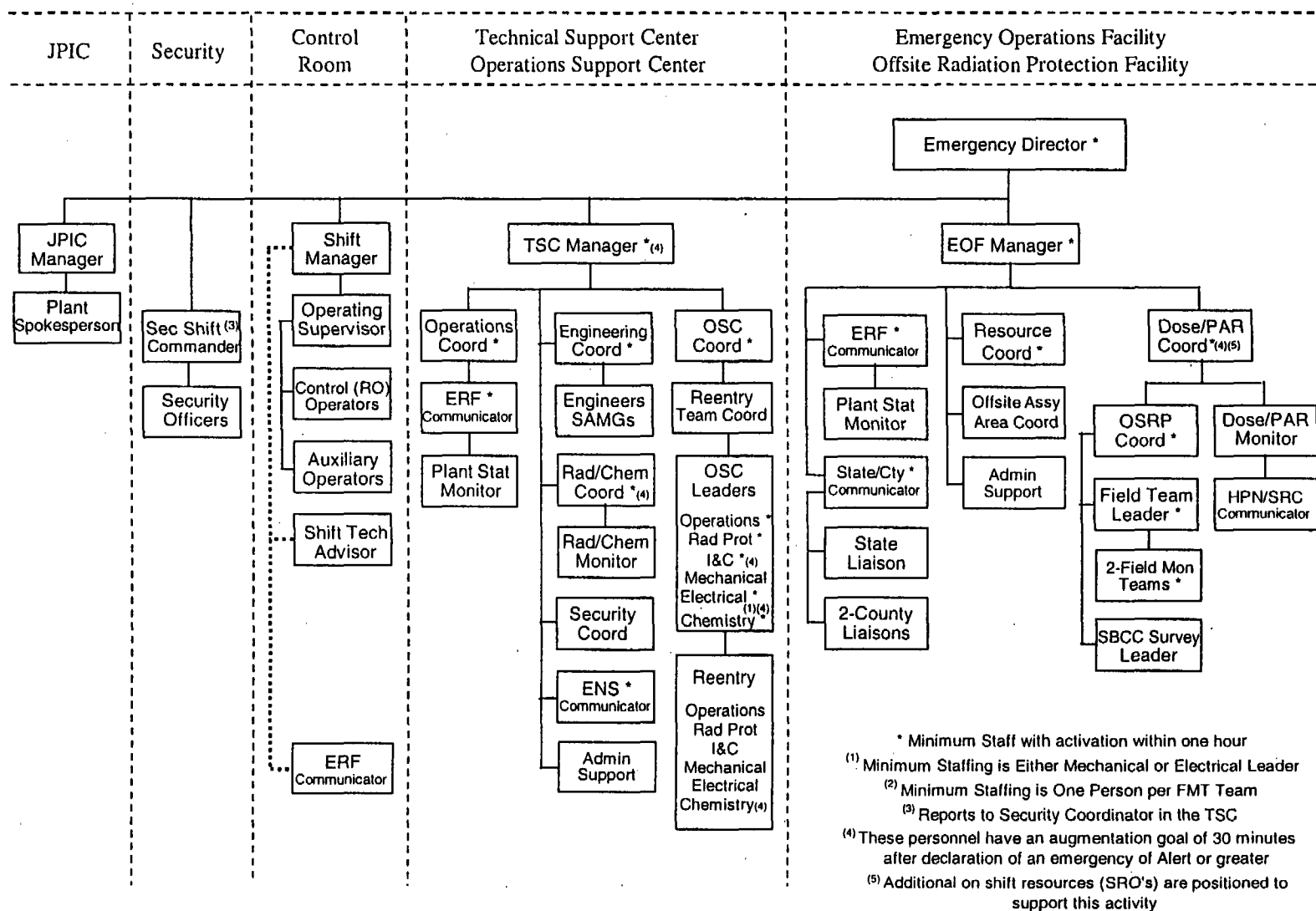
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FIGURE 5-4
EMERGENCY ORGANIZATION - ALERT



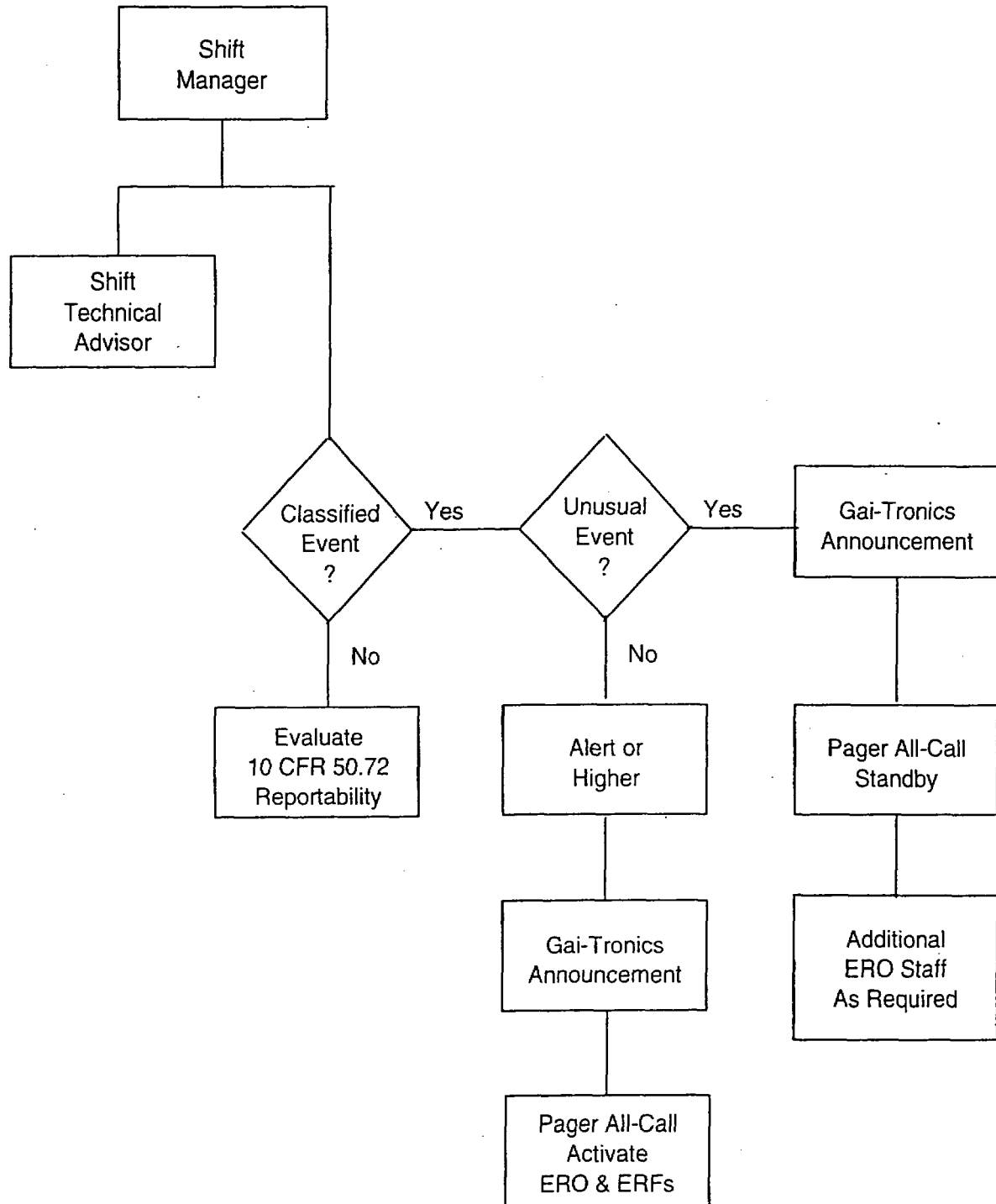
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FIGURE 5-5
EMERGENCY ORGANIZATION - SITE EMERGENCY AND GENERAL EMERGENCY



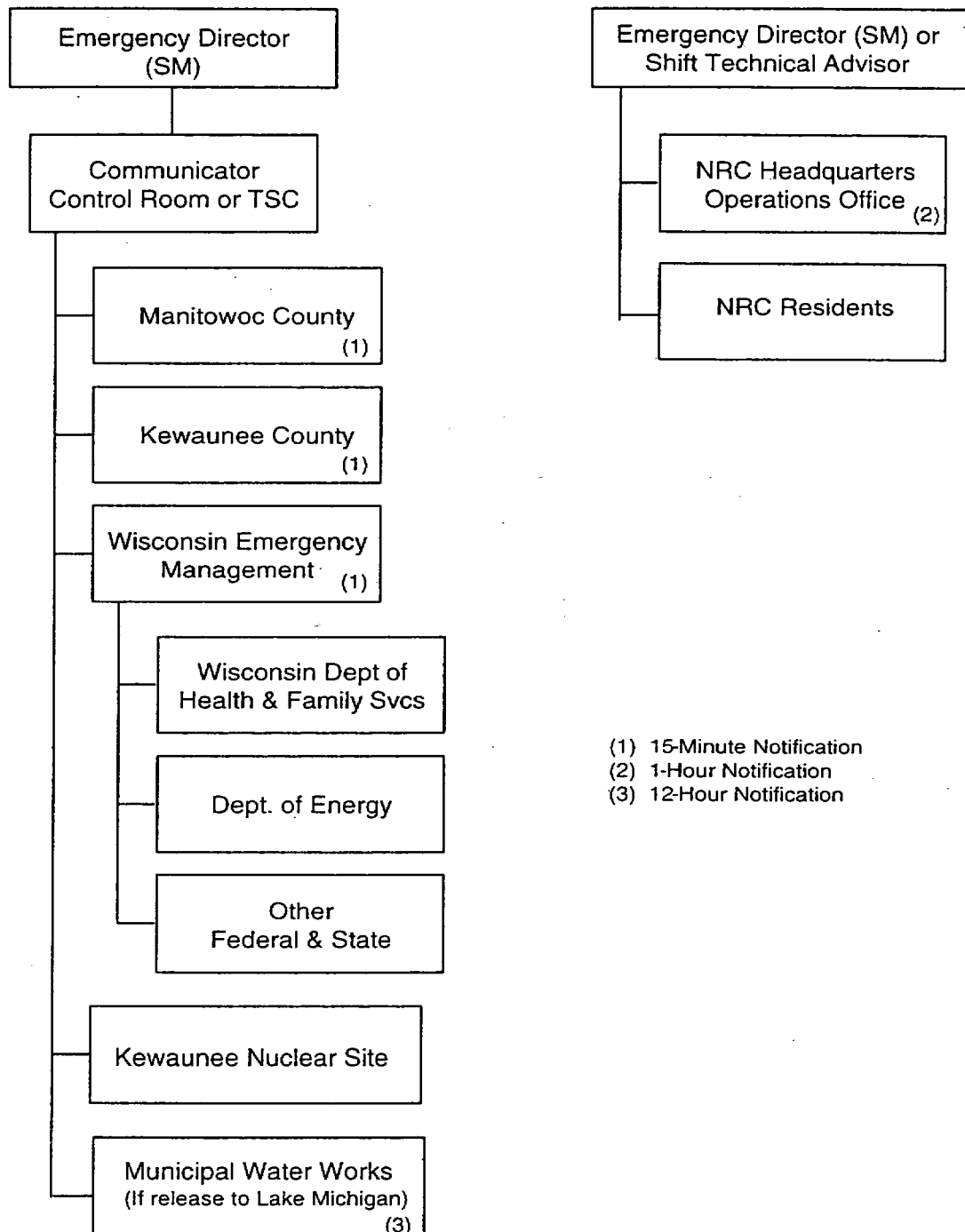
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FIGURE 5-6
EMERGENCY NOTIFICATION SEQUENCE



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FIGURE 5-7
PBNP OFFSITE NOTIFICATIONS



EMERGENCY FACILITIES AND EQUIPMENT

1.0 DISCUSSION

This section of the Emergency Plan identifies, describes, and gives locations of emergency operation centers, support centers, communication systems, and first-aid and medical facilities.

2.0 CENTERS FOR EMERGENCY OPERATIONS

The emergency response facilities (ERFs) are coordinated centers, separated physically to minimize interference and confusion, and connected by dedicated communications lines to ensure an uninterrupted flow of information. Figure 7-1 shows the emergency communications network that will allow coordination of all phases of the emergency response operations.

2.1 Emergency Operations Facility (EOF) (See EP 2.0)

The EOF is located at the SBCC with an alternate location at WPS Corporate Office, 700 North Adams Street, Green Bay, WI. Communications links will be maintained with the TSC, JPIC, OSRPF, NMC and We Energies Corporate offices, designated offsite federal and state agencies, and offsite field monitoring teams. Up to 700 sq. ft. can be made available to accommodate state and local agency personnel.

This facility, under the direction of the EOF Manager, is the focal point for overall PBNP emergency response and is the location of primary interface between PBNP and offsite agencies. This facility will be activated by plant personnel within one hour of the declaration of a Alert or higher classification. Comprehensive coordination is achieved by:

- 2.1.1 The Emergency Director is located in this facility and responsible for the overall management of the emergency response and recovery operations for the Point Beach Nuclear Plant.
- 2.1.2 Maintaining communication links with the other emergency response facilities (ERFs) and receiving periodic updates of the progress of the emergency procedures.
- 2.1.3 Providing a single contact point for state and local emergency response agencies and providing timely, accurate information.
- 2.1.4 Coordinating the transfer of injured personnel who are radiologically contaminated and need treatment by a local health care personnel.
- 2.1.5 Providing for offsite radiological surveys including transportation, equipment, and personnel.
- 2.1.6 Act as focal point for security and traffic control.

EMERGENCY FACILITIES AND EQUIPMENT

- 2.1.7 Act as focal point for technical review of information released to the media.
- 2.1.8 Disseminating information to the NMC and We Energies Corporate personnel for technical and administrative support, as outlined in the NPPOSA.
- 2.1.9 Managing recovery operations of an emergency (long-term staffing, scheduling, and expediting).
- 2.1.10 Implement Quality control program for construction and repair tasks that may be necessary.
- 2.1.11 Primary interface between outside organizations, responding vendors and contractors.
- 2.1.12 Monitor meteorological data, plant conditions and data.

2.2 Offsite Radiation Protection Facility (OSRPF) (See EP 2.0)

The radiation protection operation of the SBCC is the responsibility of the Offsite Radiation Protection Coordinator who reports to the Dose/PAR Coordinator at the EOF. The facility will be activated by plant personnel within one hour of an Alert or higher classification. This portion of the SBCC provides:

- 2.2.1 Personnel accountability, contamination monitoring, and a decontamination point for evacuated visitors, plant and contractor personnel.
- 2.2.2 A Radiation Protection control point for individuals entering or leaving the site.
- 2.2.3 A central point for offsite radiological field monitoring teams.

2.3 Technical Support Center (TSC) (See EP 2.0)

The TSC is located on El. 8' of the Admin Building. There are direct communications between the Control Room, OSC, and EOF.

This facility, under the direction of the TSC Manager coordinates all onsite emergency response. This facility will be activated by plant personnel within one hour of the declaration of an Alert or higher classification. This facility provides as:

- 2.3.1 The primary communications link between the Control Room, OSC, and EOF.
- 2.3.2 Focal point for all onsite activities during emergency response.
- 2.3.3 Technical and management support of the Control Room.

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- 2.3.4 Plant Process Computer System (PPCS) monitoring plant to provide real time data to technical advisory personnel for the evaluation of plant conditions and recommendation of response procedures.
- 2.3.5 Technical reference library with files containing appropriate drawings and system descriptions.
- 2.3.6 Onsite monitoring directed from the TSC to assist in radiological surveys, personnel monitoring, decontamination, reentry, and rescue procedures.
- 2.3.7 Current meteorological information can be obtained from the PPCS workstation.
- 2.3.8 Implementing recovery operations of an emergency.
- 2.3.9 Backup RP counting and sample analysis facility.
- 2.3.10 Providing independent engineering and technical support as requested.

2.4 Operations Support Center (OSC) (See EP 2.0)

The OSC is located on El. 8' of the Admin building. There are direct communications between the TSC and the Control Room.

This facility, under the direction of the Reentry Team Coordinator, coordinates incoming and outgoing personnel during emergency reentry operations. This facility will be activated by plant personnel within one hour of the declaration of a Alert or higher classification. The OSC provides:

- 2.4.1 Staging area to brief Control Room personnel of the emergency condition of the plant and thus minimize shift turnover time.
- 2.4.2 Coordination area for fire fighting activities.
- 2.4.3 Coordination area for mechanics, electricians and technicians to be dispatched to areas requiring their support.
- 2.4.4 Coordination area for search and rescue searches of missing persons or security breaches.
- 2.4.5 Functions as the dispatch center for all personnel reentering the plant.

EMERGENCY FACILITIES AND EQUIPMENT

2.5 Control Room (CR) (See EP 2.0, Section 2.5)

The Control Room is the primary operations center during events classified as Unusual Event and prior to the activation of the other ERFs for more serious accidents. The Shift Manager is responsible for initiating and coordinating all appropriate EPIPs from the Control Room until other ERFs are activated to assume responsibilities. All plant control manipulation is conducted from this area under the Shift Manager's cognizance. Access to the Control Room is administratively controlled.

2.6 Security Building (Extension Building) (See EP 2.0)

This facility, located in the extension building, is under the supervision of the Security Coordinator in the TSC, who coordinates:

- 2.6.1 Primary access control at the gatehouse or Site Boundary Control Center to limit both personnel and vehicular traffic to and from the site.
- 2.6.2 Control point for personnel accountability during plant assembly and evacuation procedures.

Site security personnel assist as required with the emergency response operations. They initially report to the Security Shift Commander until the TSC Manager and/or Security Coordinator arrives. In the event that the security building is not radiologically habitable, the designated alternate location for security functions is the SBCC.

2.7 Joint Public Information Center (JPIC) (See EP 2.0)

The JPIC is located at the Wisconsin Public Service corporate office at 700 North Adams Street, Green Bay, WI. The JPIC will be activated at an Alert or higher classification.

This facility, under the direction of the JPIC Manager, is responsible for providing the news media with information concerning the emergency and ensuring that accurate information is provided to the public. This facility will provide periodic updates of the emergency situation and coordinate the public relations of offices for NRC, FEMA, state, and local agencies to ensure that consolidated official status reports are provided. The JPIC will maintain communications links with the EOF and designated offsite news media agencies. An emergency hotline telephone number will be available for the public.

EMERGENCY FACILITIES AND EQUIPMENT

3.0 COMMUNICATIONS SYSTEMS

The details of the onsite and offsite emergency communications networks are shown in Figure 7-1. The systems are designed to provide reliable communication links between the various emergency centers and offsite authorities. It consists of a combination of the plant public address system, plant telephone system, multiple telephone lines to outside exchanges, including dedicated telephone lines, utility communications and paging system, and radio communications facilities. A brief detailed description is as follows:

- 3.1 Internal plant five-channel multi-station public address system (Gai-tronics). Each public address station has the capability of general announcement or party-line conversation via any channel.
- 3.2 PBX telephone system with at least 1,200 telephone extensions, including locations at the TSC, OSC, EOF and OSRPF. A switchboard of the PBX system is located in the Nuclear Engineering Building. The PBX system has a battery backup power supply with at least 8 hours of capacity. Eight in-plant extensions automatically take over eight Mishicot, Wisconsin exchange lines upon loss of all in-plant PBX system power. Milwaukee and Appleton microwave lines are available in the Control Room, TSC, EOF and Security office of the Extension Building.
- 3.3 Telephone lines to outside exchanges include six Mishicot, Wisconsin exchange lines; there are thirteen Mishicot exchange lines in the TSC, 20 more in the SBCC, and three pay phone lines: one inside the South Service Building, one inside the north gatehouse, and one in the North Service Building cafeteria. Also, the Control Room, TSC and EOF have FTS-2001 circuits used for the emergency response data system (ERDS), the emergency notification system (ENS), the health physics network (HPN), and the counterpart links as defined by the NRC. The JPIC has adequate telephones installed which are available for use during an emergency.
- 3.4 An internal sound-powered communications system with headset plug-in connections exists throughout the plant, including the Control Room.

EMERGENCY FACILITIES AND EQUIPMENT

- 3.5 The PBNP FM radio system has base station consoles in the Control Room, OSC, central alarm station, secondary alarm station, and the SBCC. The radio system utilizes an automatically actuated radio transmitter (repeater) which retransmits signals received from hand held units. This extends the hand held units' range and provides for better reception throughout the plant. These hand held units are available in the Control Room, TSC, Radiation Protection station, SBCC, and from Security. The radio system is used for in-plant security, in-plant operations, in-plant maintenance and Radiation Protection surveys, and would be used during emergencies. Using this radio system, Control Room personnel can also communicate 24 hours a day with the Manitowoc County Sheriff's Department. This allows indirect communications with the Aurora Medical Center-Manitowoc County. The radio system also provides a direct communications link with the security building or the TSC from the Control Room.

A more detailed description of the PBNP radio system is provided in the PBNP Operating Instructions.

- 3.6 The Two-Digit Dial Select circuit is a unique, dedicated telephone network and is used as the primary means of notifying the state and counties of events at PBNP. The system allows for conference calling with any or all of the following locations: Manitowoc and Kewaunee County EOCs and Sheriff Dispatch centers, Wisconsin EOC and State Patrol in Madison, Kewaunee Nuclear Power Plant CR, EOF and TSC, and Point Beach Nuclear Plant TSC, EOF, AEOF and Control Room. Commercial telephones are used as the back-up means for notification if the Two-Digit Dial Select System becomes out-of-service.
- 3.7 Radios are available for communications between offsite field monitoring teams and the SBCC. These radios are part of the FM radio system discussed in Section 3.5. Two cellular telephones are also available for field team use.
- 3.8 An inter-plant trouble alarm exists in the Control Room for a link with other We Energies power plants and System Control.

4.0 ASSESSMENT FACILITIES

The monitoring instruments and laboratory facilities needed to initiate emergency measures as well as those to be used for continuing assessment, are available both for onsite and offsite use.

- 4.1 The geophysical, radiological, process, and fire detection onsite equipment and facilities are listed on Table 7-1.
- 4.2 The geophysical, radiological, and fixed and mobile offsite equipment and facilities are listed on Table 7-2.
- 4.3 Methods for detecting and measuring radioiodine concentrations in the field of $5 \times 10^{-8} \mu\text{Ci/cc}$ using a multi-channel analyzer and silver zeolite filters have been established. Kewaunee Nuclear Power Plant has agreed to count iodine samples at the request of PBNP.

EMERGENCY FACILITIES AND EQUIPMENT

5.0 PROTECTIVE FACILITIES AND EQUIPMENT

The Control Room is intended to serve as the onsite protective facility. It is designed to be habitable under accident conditions. Emergency lighting, power, air filtration, ventilation system, and shielding walls enable operators to remain in the Control Room to ensure the reactor can be maintained in a safe condition. In addition, the operators will be able to evaluate plant conditions and relay pertinent information and data to the appropriate onsite and offsite emergency centers, personnel and agencies during all emergencies. To ensure that operating shift and other personnel can remain self-sufficient, portable radiation monitors, respiratory equipment, portable lighting, and alternate communications systems are maintained in the Control Room. During extreme conditions, selected personnel from the TSC will evacuate to the Control Room.

The Technical Support Center is intended to serve as an onsite protective facility. It is designed to be habitable under accident conditions and is designed with a charcoal air filtration and ventilation system. Shielding walls and emergency lighting, plus emergency power enable emergency responders to remain in the Technical Support Center in their response to the event. This facility also includes a permanent radiation monitoring system, plant monitoring equipment, and alternate communications systems.

The Emergency Operations Facility (EOF) is the focal point for coordination of onsite and offsite emergency response activities. It is also designed to be habitable under accident conditions and is designed with shielding walls and a ventilation system that maintains a positive pressure inside the facility. This facility also includes emergency lighting, a permanent radiation monitoring system, plant monitoring equipment, and alternate communications systems. During extreme conditions, personnel from the EOF will evacuate to the Alternate Emergency Response Facility.

6.0 FIRST-AID AND MEDICAL FACILITIES

6.1 Onsite

A permanent medical facility is provided onsite at PBNP and is located in the security building (extension building) on the first level. It contains the supplies needed for first-aid treatment. Stretcher baskets, first-aid, trauma and burn kits are at various locations throughout the plant. The first-aid treatment of injured personnel shall be administered by trained personnel.

6.2 Offsite

Medical care beyond that available onsite may be obtained through local medical emergency responders dispatched by the Manitowoc County Sheriff's Department. Subsequently, seriously ill or injured individuals may be transported to a hospital for additional care in accordance with PBNP EPIPs.

EMERGENCY FACILITIES AND EQUIPMENT

Point Beach Nuclear Plant, in cooperation with the Kewaunee Nuclear Power Plant and the Aurora Medical Center-Manitowoc County, maintains a facility equipped to provide first aid, emergency medical stabilization treatment, and decontamination for ill or injured personnel from plant. The Aurora Medical Center-Manitowoc County, which is available 24 hours a day, is equipped with a sink, decontamination supplies, protective clothing, signs and other necessary equipment.

6.3 Responsibilities

A full-time occupational health nurse is assigned to Point Beach and is responsible for defining the requirements for the first-aid equipment throughout the plant. The Emergency Preparedness group is responsible for maintaining the supply inventory. Appendix H of this plan references lists of available first aid equipment and locations.

7.0 DAMAGE CONTROL EQUIPMENT AND SUPPLIES

Damage control equipment consisting of fire hose stations, fire extinguishers, fire hydrants, and portable lanterns are located throughout the plant to be used by the fire brigade teams in the event of a fire. The PBNP Fire Protection Manual describes the specific details of fire protection, fire fighting, damage control including equipment usage and location. In addition, self-contained breathing apparatus are located at strategic locations in the plant to be used as necessary for fire fighting, entry into airborne radioactive areas or entry into toxic gas areas. Other damage control equipment and supplies will be used to effect repairs depending on the situation at hand (e.g., steam suits and miscellaneous equipment at the plant).

8.0 METEOROLOGICAL EQUIPMENT

PBNP has a meteorological monitoring system with instrumentation at three stations. The primary and backup meteorological monitoring stations are located near-shore. The third station is located about 8 miles inland and monitors for lake effect breezes. The system configurations are described in Tables 7-1 and 7-2. Meteorological data is displayed on strip charts in the Control Room and on any PPCS workstation in the Control Room, TSC and EOF.

In the event that data from the PBNP meteorological monitoring system is unavailable, data can be obtained from the Kewaunee Nuclear Power Plant, local Coast Guard Station or the National Weather Service.

Maintenance and calibration of the meteorological system will be performed in accordance with EPMP 5.0 Post-TMI Meteorological Monitoring Program Design, Operations, and Maintenance.

EMERGENCY FACILITIES AND EQUIPMENT

9.0 PROMPT NOTIFICATION SYSTEM

Details of the PBNP prompt notification system are shown on Figure 7-2. Listing of the equipment can be found on Table 7-3. The system is designed to provide notification of the public within 10 miles of PBNP.

PBNP shares an EPZ with the Kewaunee Nuclear Power Plant (KNPP), owned by Wisconsin Public Service Corporation, also operated by the Nuclear Management Company. The system, as shown in Figure 7-2, includes 27 sirens (14 in Manitowoc County and 13 in Kewaunee County). PBNP maintains the sirens within Manitowoc County and KNPP maintains the sirens within Kewaunee County.

10.0 MANITOWOC AND KEWAUNEE COUNTY EMERGENCY OPERATIONS CENTERS

Manitowoc county has a permanent emergency operations center at the Manitowoc County Sheriff's Department. Kewaunee County has a permanent emergency operations center at the Algoma Police Department. These centers are used for command and control of county agency response to an emergency.

EMERGENCY FACILITIES AND EQUIPMENT

TABLE 7-1
ONSITE ASSESSMENT EQUIPMENT & FACILITIES

	<u>SYSTEM</u>	<u>EQUIPMENT FUNCTION</u>
<u>Geophysical Monitors</u>		
<u>Meteorological</u>		
Primary Tower	1 wind speed indicator 1 wind direction indicator ΔT sensor 1 wind speed indicator 1 wind direction indicator with $\sigma\theta$ calculator 1 temperature indicator $\Delta T/T$ sensor	Monitor wind speed at El. 45 meters Monitor wind direction at El. 45 meters Monitor temperature for ΔT at El. 45 meters Monitor wind speed at El. 10 meters Monitor wind direction. Monitor standard deviation of wind direction at El. 10 meters. Monitor temperature at El. 10 meters. Monitor temperature for ΔT at El. 10 meters.
Backup Tower	1 wind speed indicator 1 wind direction indicator 1 $\sigma\theta$ calculator	Monitor wind speed at El. 10 meters Monitor wind direction at El. 10 meters Monitor standard deviation of wind direction at El. 10 meters
<u>Seismic</u>	4 strong motion accelerographs	Record ground accelerations (Unit 1 facade, #3 warehouse, drumming area and auxiliary feed pump room)
<u>Hydrological</u>	6 lake resistance temperature detectors 1 surge chamber level indicator 1 forebay level indicator	Monitor lake temperature 500 yds off shore May function as a lake level indicator May function as a lake level indicator

EMERGENCY FACILITIES AND EQUIPMENT

TABLE 7-1

LISTING OF RMS AREA MONITORS BY PLANT LOCATION

<u>Monitor</u>	<u>Location</u>	<u>Indication</u>
RE-101 Control Room	West wall of Control Room. Back side of control board above center walkway.	Shifts Control Room ventilation to 100% recirculation.
1(2)RE-102 Containment U-2 Low Range U-1	El. 66' near access hatch on east side. El. 66' on "B" S/G wall near entry to "B" RCP.	Provides dose rates within containment around access hatch.
RE-103 Chemistry Lab	East wall of chemistry lab near counting room door.	Provides indication of dose rates in chemistry lab and associated hallways.
1(2)RE-104 Charging Pump Room Low Range	Mounted on west side of shield wall east of cubicles on El. 8' of aux. building.	Indicates dose rates in hallways east of charging pump cubicles.
RE-105 Spent Fuel Pool Low Range	Mounted on railing just northeast of spent fuel pool on El. 66' of aux. building.	Provides indication of dose rates in the vicinity of the spent fuel pool. This monitor is affected by high radiation levels in containment.
1(2)RE-106 Primary Sample Room Low Range	Mounted on west wall, towards north corner of sample room on El. 26' of aux. building.	It indicates dose rate inside sample room.
1(2)RE-107 Seal Table	Mounted on wall just above seal table on El. 46' of containment.	Provides an indication of general area dose rate near seal table.
RE-108 Drumming Station	Mounted inside the Atcor waste processing cubicle.	Provides dose rate indication within the drumming station.

EMERGENCY FACILITIES AND EQUIPMENT

TABLE 7-1

<u>Monitor</u>	<u>Location</u>	<u>Indication</u>
1(2)RE-109 Failed Fuel	Mounted on south wall near east corner of primary sample room on El. 26' of aux. building.	Provides an indication of failed fuel by monitoring the primary coolant sample line.
RE-110 SI Pump Room	Located on north wall just west of passageway in SI pump room.	Provides an indication of the dose rate in general area of SI pumps.
RE-111 C59 Panel	Mounted on top of C59 instrument panel on El. 26' of aux. building.	Provides general area dose rate near C59 panel.
RE-112 Central PAB	Mounted on north wall just east of pipeway No. 3 on El. 8' of aux. building.	Indicates general area dose rate on El. 8' of aux. building.
RE-113 El. -19' Auxiliary Building	Mounted in general area of El. -19' of aux. building.	Provides an indication of the dose rate in aux. building sump and general area of El. -19'.
RE-114 El. 26' Auxiliary Building	Mounted east of CVCS holdup tanks on El. 26'.	Indicates general area dose rate in cubicle.
RE-116 Letdown Valve Gallery	Mounted by north entrance to valve gallery on El. 26' of aux. building.	Indicates general area dose rate in letdown valve gallery.
1(2)RM-126 U2 Containment 1(2)RM-127 High Range 1(2)RM-128	Mounted in containment along the perimeter on the El. 66'.	Provides an indication of general area dose rates under accident conditions.

EMERGENCY FACILITIES AND EQUIPMENT

TABLE 7-1

<u>Monitor</u>	<u>Location</u>	<u>Indication</u>
1(2)RE-134 Charging Pump Room High Range	Mounted next to 1(2)RE-104 on west side of shield wall, east of cubicles on El. 8' of aux. building.	Provides an indication of general area dose rates in the event low-range monitor pegs offscale high.
RE-135 Spent Fuel Pool High Range	Mounted next to 1(2)RE-105 on railing just northeast of spent fuel pool on El. 66' of aux. building.	Provides an indication of general area dose rates in the event low-range monitor pegs offscale high.
1(2)RE-136 Primary Sample Room High Range	Mounted next to 1(2)RE-106 on west wall, towards north corner of primary sample room on EL 26' of aux building.	Provides an indication of general area dose rates in the event low-range monitor pegs offscale high
RE-140 SI Pump Room High Range	Mounted next to RE-110 on north wall just west of passageway in SI pump room.	Provides an indication of general area dose rates in the event low-range monitor pegs offscale high.

EMERGENCY FACILITIES AND EQUIPMENT

TABLE 7-1

LISTING OF RMS PROCESS MONITORS BY PLANT LOCATION

<u>Monitor</u>	<u>Location</u>	<u>Indication</u>
The following process monitors may be used in evaluating potential airborne contamination levels within the plant. Whenever there are indications of high airborne activity being discharged through a vent stack, there is always the possibility of in-plant airborne contamination.		
1(2)RE-211 Containment Air Particulate	Located in cubicle on east side of El. 52' of containment facade.	Indicates particulate activity inside containment facade or purge exhaust stack. There are no control functions associated with this monitor.
1(2)RE-211B Containment Background	Located next to 1(2)RE-211 in cubicle.	Provides background activity for both 1(2)RE-211 and 1(2)RE-212 for background subtraction, if used.
1(2)RE-212 Containment Noble Gas	Located in series with 1(2)RE-211 on detector skid in the cubicle on El. 52' of containment facade.	Provides indication of containment noble gas activity. Isolates containment ventilation upon high activity.
RE-214 Aux. Building Vent Stack Noble Gas	Mounted on aux. building exhaust stack at about El. 80' in Unit 1 facade just south of elevator.	Indicates any gaseous release from spent fuel pool area and the drumming station. Indicative of potential aux. building airborne activity. Shuts the vent gas release valve and initiates aux. building exhaust filtration.
1(2)RE-215 Condenser Air Ejector Noble Gas	Mounted on west wall of El. 46' in turbine hall between MSRs.	Indicative of steam generator primary-to-secondary leak. May be indicative of a potential airborne radiation exposure in turbine hall.

EMERGENCY FACILITIES AND EQUIPMENT

TABLE 7-1

<u>Monitor</u>	<u>Location</u>	<u>Indication</u>
1(2)RE-216 Containment Fan Coolers SW Return Liquid Process	Unit 1, located west and slightly south of C59 panel. Unit 2, located west and slightly north of C59 panel.	Provides indication of potential contamination of cooling water.
1(2)RE-216B Containment Fan Coolers Background	Located next to 1(2)RE-216 monitor.	Provides background data for the 1(2)RE-216 liquid process monitor, if used.
1(2)RE-217 Component Cooling Water Liquid Process	In Unit 1, located in overhead just north of stairs going from El. 8' of aux. building to C59 panel area. In Unit 2, located in overhead just west of Unit 2 component cooling water pumps.	Provides indication of component cooling water contamination. Shuts component cooling water surge tank vent.
RE-218 Waste Disposal System Liquid Process	Located on east wall of waste condensate cubicle across from component cooling water pump on El. 8' of aux. building.	Monitors waste condensate activity being discharged. Upon exceeding high level setpoint, discharge of waste condensate is secured.
RE-218B Waste Disposal System Background	Located next to RE-218 monitor.	Provides background activity level for RE-218 liquid process monitor, if used.
1(2)RE-219 Steam Generator Blowdown Liquid Process	Located outside each primary sample room on El. 26' of aux. building.	Provides an indication of steam generator blowdown activity. Secures steam generator blowdown and blowdown tank outlet valves, and steam generator sample valves.
1(2)RE-219B Steam Generator Blowdown Background	Located next to 1(2)RE-219 monitor.	Provides background activity level for 1(2)RE-219 liquid process monitor, if used.

EMERGENCY FACILITIES AND EQUIPMENT

TABLE 7-1

<u>Monitor</u>	<u>Location</u>	<u>Indication</u>
RE-220 Spent Fuel Pool Heat Exchanger Service Water Liquid Process	Located on El. 46' of aux. building on north wall just west of door to Unit 2 containment facade.	Provides an indication of service water contamination from a spent fuel pool heat exchanger tube leak.
RE-220B Spent Fuel Pool Heat Exchanger Service Water Background	Located next to RE-220 monitor.	Provides background activity level for RE-220 liquid process monitor, if used.
RE-221 Drumming Area Vent Stack Noble Gas	Located in exhaust ducting above drumming area SPING in northwest corner of Unit 1 facade.	Indicates noble gas activity released from spent fuel pool and drumming area. May be indicative of a potential aux. building airborne release.
1(2)RE-222 Steam Generator Blowdown Tank Outlet Liquid Process	Located on El. 26' of aux. building on east side of steam generator blow down tank.	Provides an indication of activity level in blowdown tank. Secures blowdown of steam generators and closes blowdown tank outlet valves.
RE-223 Waste Distillate Discharge Liquid Process	Mounted on east side of C component cooling water heat exchanger on El. 46' of aux. building.	Monitors activity of waste distillate during discharge. Secures discharge valves upon exceeding setpoint.
RE-223B Waste Distillate Discharge Background	Located next to RE-223 monitor.	Provides background activity level for RE-223 liquid process monitor, if used.
RE-224 Gas Stripper Vent Stack Noble Gas	Located in northeast corner of Unit 2, El. 26' containment facade by exhaust duct.	Indicates activity of gaseous release from letdown gas stripper building.
RE-225 Combined Air Ejector Low-Range Noble Gas	Located above door on El. 46' of turbine hall above 1RE-215.	Indicative of primary-to-secondary leak in steam generators.

EMERGENCY FACILITIES AND EQUIPMENT

TABLE 7-1

<u>Monitor</u>	<u>Location</u>	<u>Indication</u>
RE-226 Combined Air Ejector High-Range Noble Gas	Located adjacent to RE-225 low-range noble gas monitor.	Provides an indication of the noble gas activity in combined air ejector discharge in the event RE-225 monitor is pegged offscale high.
1(2)RE-229 Service Water Discharge Process	For Unit 1, located on El. 8' of aux. building in vent area. For Unit 2, located in aux. feed pump room on east side of tunnel.	Monitors activity of service water discharge.
1(2)RE-229B Service Water Discharge Background	Located adjacent to 1(2)RE-229 liquid process monitor.	Provides background activity level for the 1(2)RE-229 monitor, if used.
RE-230 Waste Water Effluent	Located on El. 8' of turbine hall outside entrance to water treatment.	Monitors activity level in waste water effluent.
RE-230B Waste Water Effluent Background	Located adjacent to RE-230 liquid process monitor.	Provides background activity level for RE-230 liquid monitor.
1(2)RE-231 - Line A 1(2)RE-232 - Line B Steam Line Atmospheric Release	Located on El. 88' of containment facade in the area of atmospheric relief valves - one per steam generator.	Monitors activity of steam released.
RE-234 Control Room Iodine	Located on top of Control Room building on El. 46' of turbine hall.	Monitors iodine activity in Control Room.
RE-234B Control Room Background	Located adjacent to RE-234 iodine monitor.	Provides background activity level for RE-234 iodine monitor.

EMERGENCY FACILITIES AND EQUIPMENT

TABLE 7-1

<u>Monitor</u>	<u>Location</u>	<u>Indication</u>
RE-235 Control Room Noble Gas	Located adjacent to RE-234 iodine monitor.	Monitors noble gas activity in Control Room. Initiates 100% recirculation (Mode 3) of Control Room ventilation upon exceeding setpoint.
RE-237 Technical Support Center Iodine	Located in ductwork on El. 18.5' of TSC building, in northwest corner.	Monitors iodine activity in the TSC.
RE-238 Technical Support Center Noble Gas	Located adjacent to RE-237 iodine monitor.	Monitors the noble gas activity in TSC.
RE-239 TSC Area Monitor	North Wall of TSC	Indicates general area TSC dose rates.
RE-240 El. 18.5' Assembly Area Monitor	North Wall of El. 18.5' of TSC	Indicates general area TSC dose rates.
RE-241 SBCC Iodine Monitor	SBCC	Monitors for iodine activity in the SBCC.
RE-242 SBCC Noble Gas Monitor	SBCC	Monitors for noble gas activity in the SBCC.
RE-243 EOF Area Monitor	East wall of SBCC-EOF	Indicates general area EOF dose rates.
1(2)RE-305 SPING Unit Containment Purge Exhaust Low Range Gas	Located in unit rod drive room.	Monitors noble gas activity in unit containment purge exhaust. Isolates containment ventilation upon high activity.

EMERGENCY FACILITIES AND EQUIPMENT

TABLE 7-1

<u>Monitor</u>	<u>Location</u>	<u>Indication</u>
1(2)RE-306 SPING Unit Containment Purge Exhaust Area	Located in unit rod drive room.	Monitors noble gas activity in unit containment purge exhaust.
1(2)RE-307 SPING Unit Containment Purge Exhaust Mid Range Gas	Located in unit rod drive room.	Monitors noble gas activity in unit containment purge exhaust.
1(2)RE-309 SPING Unit Containment Purge Exhaust High Range Gas	Located in unit rod drive room.	Monitors noble gas activity in unit containment purge exhaust.
RE-315 SPING Auxiliary Building Vent Low Range Gas	Unit 1 rod drive room.	Monitors noble gas activity in the auxiliary building vent.
RE-316 SPING Auxiliary Building Exhaust Area	Unit 1 rod drive room.	Monitors noble gas activity in the auxiliary building.
RE-317 SPING Auxiliary Building Vent Mid Range Gas	Unit 1 rod drive room.	Monitors noble gas activity in the auxiliary building vent.

EMERGENCY FACILITIES AND EQUIPMENT

TABLE 7-1

<u>SYSTEM</u>	<u>EQUIPMENT</u>	<u>FUNCTION</u>
RE-319 SPING Auxiliary Building Vent High Range Gas	Unit 1 rod drive room.	Monitors noble gas activity in the auxiliary building vent.
RE-325 SPING Drumming Area Vent Low Range Gas	Drumming area vent fan area.	Monitors noble gas activity in the drumming area vent.
RE-326 SPING Drumming Area Exhaust Area	Top of drumming area.	Monitors noble gas activity in the drumming area vent.
RE-327 SPING Drumming Area Vent Mid Range Gas	Drumming area vent fan area.	Monitors noble gas activity in the drumming area vent.

EMERGENCY FACILITIES AND EQUIPMENT

TABLE 7-1

<u>SYSTEM</u>	<u>EQUIPMENT</u>	<u>FUNCTION</u>
<u>Radiation Monitors & Sampling Equipment</u>	Gamma spectrometers (multichannel analyzers)	Isotopic identification and analysis
	Geiger-Mueller survey instruments (0-1,000 R/hr)	Measures gamma & beta radiation dose rate
	Ionization chambers (0-10,000 R/hr)	Measures gamma & beta radiation dose rate
	Contamination survey instruments	Count samples, equipment & personnel for gross alpha, gross beta & gamma activity
		Air sampling equipment concentration
	Neutron survey instruments	Measure neutron radiation dose rate
	TLD/direct reading dosimeter	Measures personnel gamma dose
	Whole body counter	Determines internal radionuclide uptake
<u>Fire Detection</u>	Smoke detectors	Detect products of combustion
	Rate of rise heat detectors	Associated with sprinkler systems, detect quick rise of temperature

EMERGENCY FACILITIES AND EQUIPMENT

TABLE 7-1

<u>SYSTEM</u>	<u>EQUIPMENT</u>	<u>FUNCTION</u>
<u>Facilities</u>	Chemistry laboratory & RP Station analyses (available 24 hours per day)	Equipped for chemical & radiological analyses
	Backup chemistry laboratory and RP station analyses (available 24 hours per day) located in the TSC building.	Equipped for chemical & radiological analyses
	80 TLD radiation monitoring stations	

EMERGENCY FACILITIES AND EQUIPMENT

TABLE 7-2

OFFSITE ASSESSMENT EQUIPMENT & FACILITIES

<u>System</u>	<u>Equipment</u>	<u>Function</u>
<u>Geophysical Monitors</u>		
<u>Meteorological</u>		
Inland Tower (8 miles west of PBNP)	1 wind speed indicator 1 wind direction indicator 1 $\sigma\theta$ calculator 1 temperature indicator	Monitor wind speed at El. 10 meters Monitor wind direction El. 10 meters Monitor standard deviation on wind direction at El. 10 meters Measures temperature
U.S. Coast Guard Station, Two Rivers	Wind speed & direction Lake Temperature Air Temperature Barometric Pressure	Monitors wind speed & direction at approximately El. 60'
Manitowoc County Airport	Wind speed & direction Surface temperature	Monitors wind speed & direction at approximately El. 20' Measures temperature
National Weather Service Austin Straubel Field Green Bay	Wind speed & direction, temperature weather forecast	Monitor wind speed & direction at approximately El. 30'. Measures temperature; dispatch weather forecast.

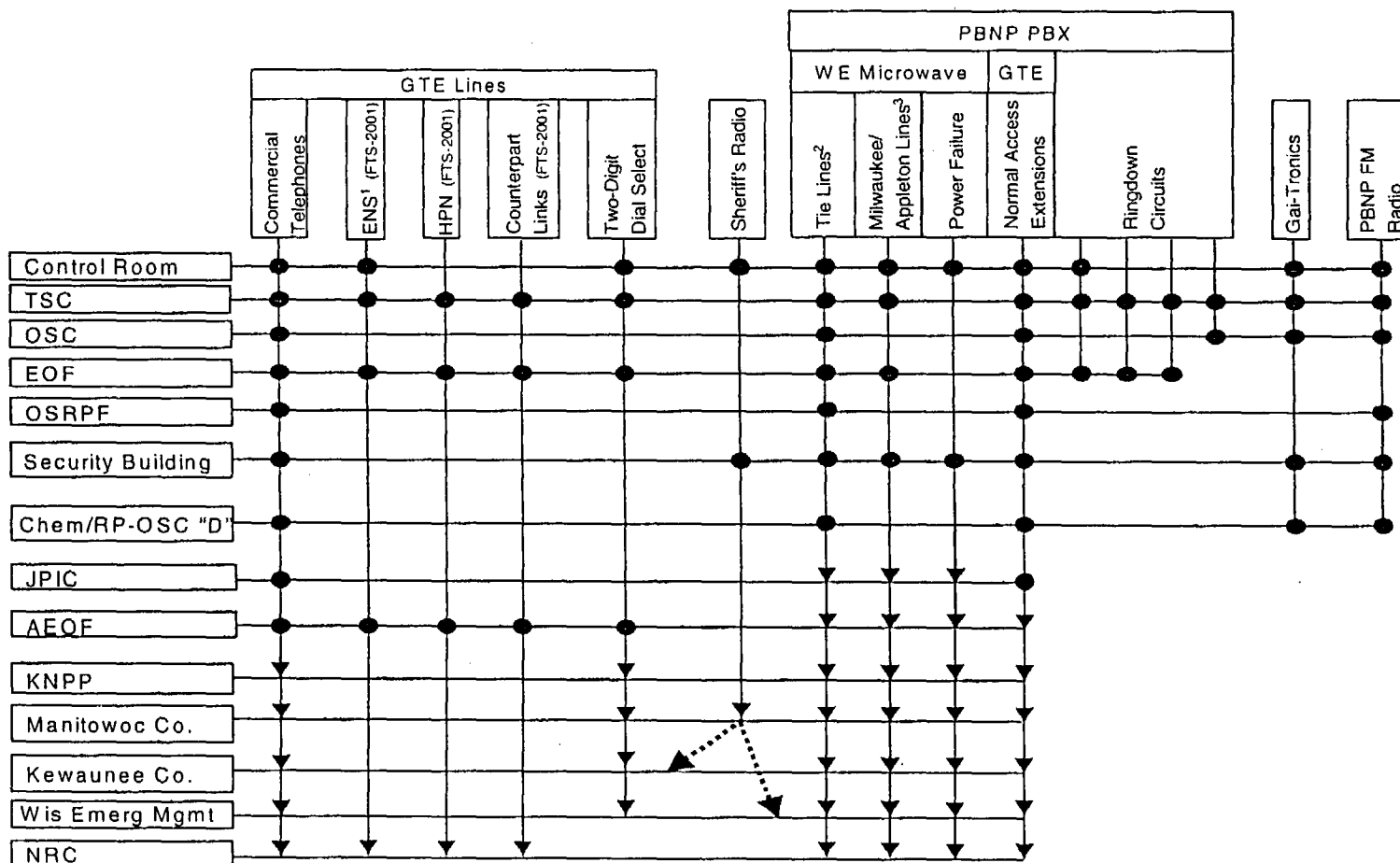
EMERGENCY FACILITIES AND EQUIPMENT

TABLE 7-2

<u>System</u>	<u>Equipment</u>	<u>Function</u>
<u>Radiological Monitors</u>		
Environmental Monitoring (includes ISFSI)	(6) Fixed air sampling stations	Collect particulate & iodines
	(33) TLD radiation monitoring stations	Measure environmental radiation
Kewaunee Nuclear Power Plant	Gamma spectrometer	Isotopic identification & analysis
<u>Laboratory Facilities</u>		
Kewaunee Nuclear Power Plant	Chemistry laboratory	Equipped for chemical & radiological analyses (available 24 hours per day)
Vendor	Chemistry & counting laboratory	Equipped for chemical & radiological analyses (available within 24 hours)

EMERGENCY FACILITIES AND EQUIPMENT

FIGURE 7-1
PBNP EMERGENCY RESPONSE COMMUNICATIONS NETWORK



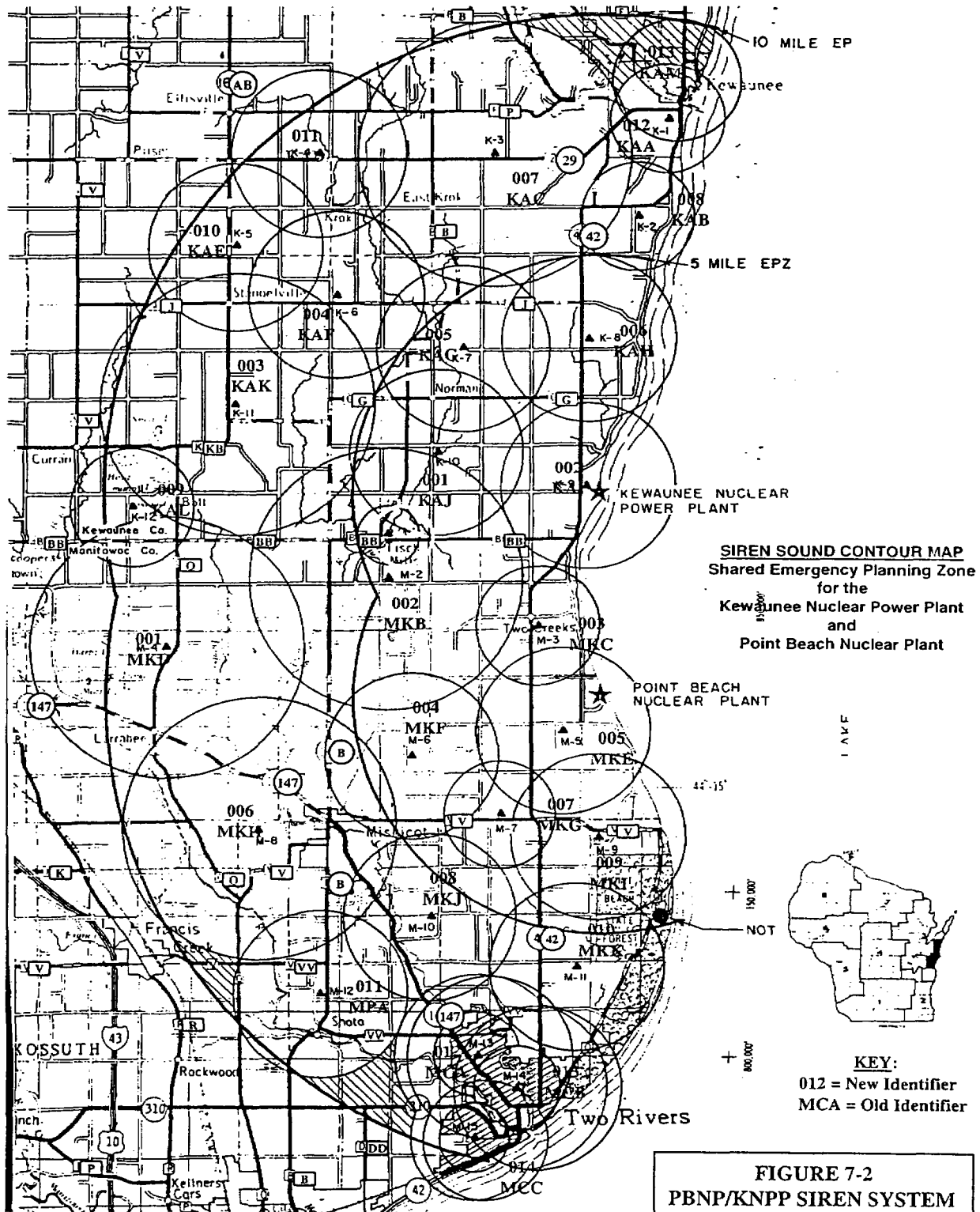
¹ The FTS-2001 phones are dedicated NRC lines (ENS/HPN/Counterpart Links).

² When GTE service is lost, calls from outside the WE system cannot be received through the tie lines. An open line may need to be maintained if this system is used for emergency communications.

³ When GTE service is lost, these lines can be utilized to place and receive internal and external calls. To dial internally on a line, dial 8-755-xxxx. To dial externally on the line, dial 9-1-areacode-xxx-xxxx.

EMERGENCY FACILITIES AND EQUIPMENT

FIGURE 7-2
PBNP SIREN SYSTEM



EMERGENCY FACILITIES AND EQUIPMENT

TABLE 7-3

SIREN LOCATIONS

System Design

Siren Identifier		Location	Sound Output (dBC)
New	Old		
Kewaunee County			
012	KAA	Third and Center Streets, Kewaunee	125
008	KAB	Mill Road, 0.25 miles south of Hwy-42	119
007	KAC	Hwy-29, 0.25 miles west of Birchwood Road	132
011	KAD	Hwy-29, 0.25 miles west of Townline Road	125
010	KAE	Hwy-163 0.2 miles north of Pine Grove Road	125
004	KAF	Church Road, 0.1 miles north of County Trunk J	125
005	KAG	Old Settler Road, 0.2 miles north of Townhall Road	125
006	KAH	Hwy-142, 0.25, miles north of Old Settler Road	126
002	KAI	Hwy-42, at Kewaunee County Nuclear Road	126
001	KAJ	Norman Road at Sandy Bay Road	125
003	KAK	Hwy-AB, 0.35 north of County Trunk KB	132
009	KAL	Harpt Lake Road, 0.25 miles south of Bolt Road	119
013	KAM	South Dodge and West Park in Kewaunee	125
Manitowoc County			
002	MKB	Stangel Road and Zander Road intersection	132
003	MKC	Hwy-42, 0.15 miles south of Two Creeks Road	121.5
001	MKD	County Trunk Q, 0.15 miles south of Factory Road	132
005	MKE	Nuclear Road, at Twin Elder Road	125
004	MKF	Saxonburg Road, 0.35 miles north of Assman Road	126
007	MKG	County Trunk V, 0.5 miles west of Hwy-42	119
006	MKH	Cherney Road, 0.1 miles south of Fisherville Road	132
009	MKI	County Trunk V at Ravine	125
008	MKJ	Division Drive at Rawley Road	125
010	MKK	Hillcrest Road, 0.75 miles east of Hwy-42	125
011	MPA	Crystal Spring Road, 0.15 miles west of County Trunk B	125
012	MCA	Forest View Cemetery in the City of Two Rivers	125
013	MCB	Washington High School in the City of Two Rivers	126
014	MCC	East of Koenig School in the City of Two Rivers	121.5

(See Figure 7-2 for siren locations)