U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-255/83-12(DRMSP)

Docket No. 50-255 License No. DPR-20

Licensee: Consumers Power Company
212 West Michigan Avenue
Jackson, MI 49201

Facility Name: Palisades Nuclear Generating Plant

Safety Evaluation Report Conducted: March 21 - August 19, 1983

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Safety Evaluation Report Summary

Safety Evaluation Report - March 21 - August 19, 1983 (Report No. 50-255/83-12 (DRMSP)) Routine Safety Evaluation Report on Revision 3 to the Site Emergency Plan, dated July 29, 1983. The inspection involved 135 inspector-hours by one NRC inspector.
Results: The Plan meets the planning standards of 10 CFR 50.47 (b) and the requirements of 10 CFR Part 50, Appendix E.

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EMERGENCY PREPAREDNESS

SAFETY EVALUATION REPORT

RELATED TO THE OPERATION OF

PALISADES NUCLEAR GENERATING PLANT

DOCKET NO. 50-255

NRC OPERATING LINCENSE NO. DPR-20

CONSUMERS POWER COMPANY

U.S. NUCLEAR REGULATORY COMMISSION

AUGUST 1983

Introduction

The staff reviewed Consumers Power Company's Palisades Plant Site Emergency Plan, Revision 0, dated March 1, 1981, and submitted comments in a letter dated December 3, 1981, from Mr. James G. Keppler to Mr. R. B. DeWitt. The licensee responded to these comments by letter dated March 31, 1982 from Mr. Brain D. Johnson to Mr. James G. Keppler, and later submitted Revision 1 to the Plan, dated September 14, 1982. Several inadequacies in the Revision were discussed with the licensee in May 1983, at which time the licensee committed to provide another Plan revision by August 1, 1983. We have completed our reivew of Revision 3 to the Emergency Plan, dated July 29, 1983 and pertinent correspondence dated January 4, February 5, and March 31, 1982, from the licensee to the NRC. This Emergency Preparedness Safety Evaluation Report with the NRC staff conclusions has been prepared incorporating the findings of the NRC staff review.

A. Assignment of Responsibility (Organization Control) (Closed, 255/81-19-07)

Planning Standard

Primary responsibilities for emergency response by the nuclear facility licensee, and by State and local organizations within the Emergency Planning Zones have been assigned, the emergency responsibilities of the various supporting organizations have been specifically established, and each principal response organization has staff to respond and to augment its initial response on a continuous basis.

Emergency Plan

The concept of operations for emergency organizations and suborganizations with operational roles during an emergency, and their relationships to the total effort, are described in the Emergency Plan. The Plan also contains block diagrams which depict the normal plant organization, emergency onsite and offsite organizations, and the long-term recovery organization. The plant operating staff, including operations, health physics, and security personnel, are on shift 24 hours per day and provide manning of the communications links.

Federal, State, and local governmental organizations which are intended to contribute to the overall emergency response effort are identified in the Plan, as are non-governmental support organizations including the Institute for Nuclear Power Operations (INPO). Mutual assistance agreements between the licensee and the Indiana and Michigan Electric Company and between the licensee and the Toledo Edison Company and Detroit Edison Company are appended to the Plan. Contract/service agreements, which address emergency assistance between the licensee and the nuclear steam supply system and nuclear fuels vendors, are referenced in the Plan.

The Emergency Plan Implementing Procedures (EPIPs) contain information regarding how the licensee will be capable of continuous operation for a protracted period and who, by title, is responsbile for assuring continuity of human and material resources. This individual should, however, also be identified by title in the Emergency Plan.

The staff finds this element of emergency preparedness, as described in the Palisades Plant Site Emergency Plan, to be adequate.

B. Onsite Emergency Organization (Closed, 255/81-19-08)

Planning Standard

Onshift facility licensee responsibilities for emergency response are unambiguously defined, adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available, and the interfaces among various onsite response activities and offsite support and response activities are specified.

Emergency Plan

The normal operating organization is described in the Emergency Plan and is summarized in Figure 1. The duties and responsibilities of key management and supervisory personnel are specified in the Plan for the normal operating organization. The emergency organization is described by major functional areas and tasks for personnel with a specific position title or expertise. The primary and alternate manning for the onsite emergency organization is illustrated in a block diagram (Figure 2) using normal plant titles.

The Shift Supervisor, on shift at all times, acts as the Site Emergency Director (SED) until relieved by the Palisades Plant General Manager or designated alternate. The line of succession for the SED is specified in the Plan. The SED has overall responsibility for the plant's emergency activities, including assessment of the emergency, operational decisions involving personnel and plant safety, and making protective action recommendations to off-site authorities. Other SED responsibilities are listed in the Plan. SED responsibilities which may not be delegated are decisions to recommend protective actions to offsite organizations, to evacuate the site, and to authorize emergency worker exposures that exceed 10 CFR Part 20 limits.

The licensee has specified the positions, titles and the major tasks to be performed by persons to be assigned to the major functional areas of emergency activity. Positions and/or titles and qualifications of all shift staff and plant staff, both onsite and offsite, who are assigned major functional duties are listed. The Plan lists the following nine personnel on-shift who provide expertise 24 hours per day: one Shift Supervisor-senior reactor operator, two Control Room Operators, two Auxiliary Operators, one Plant Technical Engineer or Auxiliary Operator for notification/communication, one Radiation Safety Technician, one Chemistry Technician, and one Shift Engineer. By letter dated November 6, 1981, responding to a NRC Confirmation of Action Letter dated October 7, 1981, the licensee stated that the following personnel are presently provided on shift 24 hours per day (above cold shutdown): one senior reactor operator, two Control Room Operators, four Auxiliary Operators, one Shift Technical Advisor, and two Chemistry/Health Physics Technicians, for a total of ten personnel. This commitment meets the staffing requirement of NUREG-0654, Table B-1. Figure 5-5 of the Plan lists the number of people by position title or expertise who can respond in approximately 30 and 60 minutes for staff augmentation. This figure indicates that sufficient numbers of personnel with appropriate expertise to meet the guidance in NUREG-0654 Table B-1 can respond within the desired time intervals.

By letter from Mr. Brian D. Johnson to Mr. James G. Keppler dated November 6, 1981, the licensee stated that a senior plant manager qualified to act as Emergency Operations Facility (EOF) Director and adequate EOF support staff would not be able to meet the 30 to 60 minute staff augmentation time constraint and that qualified general office staff may

require up to six hours to reach the permanent EOF. Therefore, a temporary EOF, located at the General Office Control Center and staffed by general office personnel, has been proposed to fulfill the EOF functions until adequate general office staff can man the permanent EOF. The licensee has formally requested NRC approval to use this concept of operations by letter dated January 4, 1982, with additional information transmitted regarding the temporary EOF by letter dated February 5, 1982. NRC Region III responded by letter dated February 12, 1982, that the temporary EOF concept was adequate for interim use. However, this concept of operations remains an UNRESOLVED ITEM as the long-term means of adequately meeting EOF requirements.

The interfaces between and among the onsite functional area of emergency activity, Consumers Power Company General Office support, local services support, and State and local government response organizations are described in the Emergency Plan and the attached Figures 2 through 5. Figure 2 illustrates the formal organizational structures for the Technical Support Center, Operational Support Center, and the Control Room; figure 3 illustrates the permanent and temporary EOF organizational structures; figure 4 depicts the licensee's Recovery Organization; and figure 5 summarizes the onsite and offsite licensee and governmental emergency response organizations.

Corporate management, administrative and technical support, and public information personnel who will augment the plant staff are specified in the plan. INPO, Indiana and Michigan Electric Company, Toledo Edison Company, and Detroit Edison Company are listed among the private emergency support organizations with whom the licensee has mutual technical assistance agreements. The services to be provided by local agencies to handle emergencies are identified for each organization and specified in Letters of Agreement appended to the Plan.

With the exception of the UNRESOLVED ITEM regarding the interim EOF concept of operations, the staff finds this element of emergency preparedness to be adequate.

C. Emergency Response Support and Resources (Closed, 255/81-19-09)

Planning Standard

Arrangements for requesting and effectively using assistance resources have been made, arrangements to accommodate State and local staff at the licensee's near-site Emergency Operations Facility have been made, and other organizations capable of augmenting the planned response have been identified.

Emergency Plan

The Site Emergency Director has the authority to request and utilize assistance from Federal agencies, e.g., Department of Energy Regional Assistance Plan and Interagency Radiological Assistant Plan. The licensee will dispatch a representative to the appropriate State and

local Emergency Operations Centers. The licensee has identified the radiological laboratories which can be used in an emergency, their general capabilities, and expected availability to provide radiological monitoring and analyses services. Other facilities, organizations, and individuals who can be relied upon to provide emergency assistance have been adequately identified in the Plan.

The staff finds this element of emergency preparedness, as described in the Palisades Plant Site Emergency Plan, to be adequate.

D. Emergency Classification System (Closed, 255/81-19-10)

Planning Standard

A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.

Emergency Plan

Four standard emergency classes (Unusual Event, Alert, Site Emergency, and General Emergency) have been established. Licensee responses, and those of State and local offsite authorities, associated with each class are summarized in the Plan. Emergency Action Levels (EALs) have been developed for each class, based on guidance provided in Appendix 1 of NUREG-0654, Revision 1. The method of detection for each EAL is specified in the Plan. EALs are categorized as follows: Alarms/Annunciators; Communications Loss; Containment Integrity; Engineered Safety Features; Control Room Evacuation; Fire; Fission Product Barriers/Fuel Damage; General Hazards; Personnel Injury; Meteorological Data Loss; Miscellaneous; Natural Phenomenon; Plant Power-Electrical; Primary Coolant System Integrity; Primary Coolant System-Temperature or Pressure; Releases; Safety Injection System; Secondary Side; and Security. The Plan provides a Table relating the FSAR analyzed accident to appropriate EAL classifications.

The staff finds this element of emergency preparedness, as described in the Palisades Plant Site Emergency Plan, to be adequate.

E. Notification Methods and Procedures (Closed, 255/81-19-11)

Procedures have been established for notification, by the licensee of State and local response organizations and for notification of emergency personnel by all response organizations; the content of initial and followup messages to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.

Emergency Plan

The licensee has established procedures for initial notification of State and local response organizations consistent with the emergency classification and action level scheme set forth in Appendix 1 of NUREG-0654. The plan provides for message verification. Procedures for alerting, notifying and mobilizing emergency response personnel have been established. Figure 6 of this report depicts the notification schemes for plant and corporate personnel, and Federal, State, and local governmental agencies.

The content of initial emergency messages to State and local agencies to be sent from the plant includes:

- Name and telephone number of caller
- Location of incident
- Date and time of incident
- Emergency classification of the incident
- Whether a release is taking or has taken place
- The affected or potentially affected population
- Recommonded protective actions
- Message verification.

The contents of followup messages to state and local agencies, consistent with NUREG-0654 guidance, is also prescribed in the Plan.

The licensee has established the physical and administrative means for providing timely notification and prompt instructions to the public within the plume exposure pathway Emergency Planning Zone (EPZ). Consumers Power Company has installed 89 sirens within the 10 mile plume exposure EPZ which are designed to alert 100% of the EPZ population within 15 minutes of the decision to activate the sirens. Offsite authorities who are permitted to activate the siren system are identified in the plan. The siren system is tested monthly. The successful operational test was conducted prior to February 1, 1982, deadline, thereby meeting the requirement of 10 CFR 50, Appendix E, Section IV.D.3.

The staff finds this element of emergency preparedness, as described in the Palisades Plant Site Emergency Plan, to be adequate.

F. Emergency Communications (Closed, 255/81-10-12)

Planning Standard

Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.

Emergency Plan

The licensee has made provisions for 24 hour per day communications with appropriate Federal, State, local, and licensee organizations during emergency situations. With the exception of communications equipment

utilized by offsite radiation monitoring teams, primary and backup communications systems are adequately described in the Plan. These communications systems are also summarized in Figure 7 of this report.

There are also communications links between the licensee and an ambulance service and fixed medical support facilities. However, the Plan does not include a description of the communications link between the licensee and mobile medical support facilities. This communications link, which is through the medical service dispatcher, should be stated in the next revision of the Emergency Plan.

Periodic testing of the emergency communications systems is conducted. The link between the NRC and the licensee is tested monthly. The link between the licensee and State and local government agencies in the plume exposure EPZ is tested quarterly, and annually for those agencies in the ingestion pathway EPZ. Annual tests are conducted for State and local EOCs, field assessment teams, the Control Room, the Technical Support Center (TSC), and the EOF.

The staff finds this element of emergency preparedness, as described in the Palisades Plant Site Emergency Plan, to be adequate.

G. Public Education and Information (Closed, 255/81-19-13)

Planning Standard

Information is made available to the public on a periodic basis on how they will be notified and what their initial actions should be in an emergency (e.g., listening to a local broadcast station and remaining indoors), the principal points of contact with the news media for dissemination of information during an emergency (including the physical location or locations) are established in advance, and procedures for coordinated dissemination of information to the public are established.

Emergency Plan

The licensee has provided for a coordinated annual dissemination of information regarding how the public will be notified, what initial actions should be taken in the event of an emergency, educational information on radiation, locations from which additional information can be acquired, protective measures, and special needs for the handicapped. The means used for disseminating the information is through periodic direct mailings, mailings of brochures in billing statements, posting in public places, and insertions in telephone books. The information is updated annually by the licensee and State and local governments and is available to the permanent and transient adult population in the plume exposure pathway EPZ.

The licensee has designated points of contact and a Joint Public Information Center (JPIC) to be used by news media during an emergency. The Plant Public Affairs Director of Consumers Power Company is the official spokesman for the Company and is responsible for establishing a rumor

control system. The licensee has established arrangements for exchange of information among designated spokespersons. Consumers Power Company has established an annual program to acquant members of the media with site and local emergency plans, information concerning radiation, and the emergency classification scheme.

The staff finds this element of emergency preparedness, as described in the Palisades Plant Site Emergency Plan, to be adequate.

H. Emergency Facilities and Equipment (Closed, 255/81-19-14)

Planning Standard

Adequate emergency facilities and equipment to support the emergency response are provided and maintained.

Emergency Plan

The Emergency Plan describes the onsite emergency facilities needed to support an emergency response including a Technical Support Center (TSC) and an Operational Support Center (OSC). The Plan also describes the offsite Emergency Operations Facility (EOF) concept of operations being employed by Consumers Power Company. The Palisades EOF is composed of two facilities, the temporary EOF located at the General Offices on Parnall Road at Jackson, Michigan and the permanent EOF located at the South Haven Conference Center approximately 10 miles from the plant. The temporary EOF assumes the functions of the EOF until the permanent EOF is activated. The licensee has requested the NRC to approve this concept of operations. The NRC has found the temporary EOF concept of operations acceptable for interim use. The adequacy of the licensee's onsite and offsite emergency response facilities will be reviewed by the Nuclear Regulatory Commission, pursuant to Revision 1 to NUREG-0737, in a separate inspection.

The Plan contains descriptions of provisions for activating and staffing of emergency response facilities. The TSC and OSC may be activated for an Unusual Event and will be activated for an Alert, Site Emergency, or General Emergency. The EOF is fully activated when a Site Emergency or General Emergency is declared, and may be activated for an Unusual Event or an Alert. The GOCC may be activated during an Alert, and will be activated during a Site or General Emergency.

Onsite monitoring systems have been identified and established that are to be used to initiate emergency measures in accordance with Appendix 1 of NUREG-0654, as well as those monitors used for conducting assessment; e.g., meteorological monitors, process and radiological monitors, and fire and combustion monitors. Provisions have been made to obtain offsite monitoring and assessment data from radiological monitors and fixed laboratory facilities. However, the Plan does not include a description of geophysical phenomena monitoring systems, nor does it describe provisions for acquiring such data from offsite monitoring systems of other organizations or agencies. Sources of seismic monitoring data should be listed in the next Emergency Plan revision.

The Plan contains summary descriptions of the licensee's meteorological monitoring program, computerized source of backup and supplemental meteorological data, and the manner by which the Control Room receives severe weather warnings. Additional details on these sources of meteorological information are available in several referenced EPIPs and the Palisades Plant Meteorological Program document.

Emergency kits containing radiological monitoring devices, protective equipment, and supplies are described in the Emergency Plan and are located in each of the following areas: the Control Room, OSC, the Emergency Vehicle, and the permanent EOF. The kits are inventoried and inspected quarterly to assure readiness. The Chemistry/Health Physics Superintendent is responsible for planning and scheduling the periodic inspection, operability checks, calibration, and inventory of emergency kits.

The staff finds this element of emergency preparedness, as described in the Palisades Plant Site Emergency Plan, to be adequate.

I. Accident Assessment (Closed, 255/81-19-15)

Planning Standard

Adequate methods, systems and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.

Emergency Plan

The Plan contains plant system and radiological effluent parameter values characteristic of a spectrum of abnormal conditions and accidents. These values and other methods of detection are tabulated to cross reference initiating conditions for each of the four emergency classes.

The onsite radiation monitoring system, as described in the Plan, measures, indicates, and records the presence and level of radiation and alerts plant personnel to abnormal levels of radioactivity. Readouts and alarms are provided locally and in the Control Room. The system consists of permanently installed continuous area, liquid, and airborne radiation monitoring devices, together with a program for specific sample collections and laboratory analyses.

The licensee's offsite radiological monitoring program consists of a number of thermoluminescent dosimeter (TLD) and airborne particulate sampling stations. Station locations are identified in the Plan and EPIPs. During accident conditions, the licensee's radiological monitoring teams are activated at the direction of the Site Emergency Director (SED). Teams are normally dispatched from the OSC. If the OSC has not been activated, the SED contacts the plant's Radiation Protection Office. Monitoring teams generally consist of two Chemistry/Radiation Protection Technicians. An emergency vehicle is available for team use and is equipped with a radio and instruments for monitoring

and/or sampling gaseous or liquid releases. The estimated deployment time for an offsite monitoring team is 30 minutes. The Plan does not indicate, however, that the licensee has the capability to detect and measure airborne radioiodine concentrations as low as 10^{-7} microcuries per cubic centimeter under field conditions. The licensee's offsite monitoring efforts can be augmented within about 3 hours by personnel and equipment provided by the Michigan State Department of Public Health. A reciprocal agreement between the licensee and the Indiana and Michigan Electric Company is appended to the Plan. This agreement allows the licensee to utilize laboratory facilities and personnel at the Donald C. Cook Nuclear Plant should the licensee lose use of Palisades Plant laboratory facilities due to a nuclear related accident or natural disaster.

The Plan references EPIPs regarding methods for calculating radioactive release rates based on data from stack gas, steam line, high range effluent, and containment air radiation monitors. Provisions have been made for determining the source term if instrumentation is offscale or inoperable. Referenced procedures also contain the licensee's programmable calculator and manual techniques for estimating offsite dose based on source term and meteorological data, plus a method for comparing offsite monitoring results to dose projections.

The staff finds this element of emergency preparedness, as described in the Palisades Plant Site Emergency Plan, to be adequate.

J. Protective Response (Closed, 255/81-19-16)

Planning Standard

A range of protective actions have been developed for the plume exposure pathway EPZ for emergency workers and the public. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

Emergency Plan

The methods and the time required to warn and advise individuals within areas controlled by the licensee are described in the Emergency Plan. A public address system and an alarm system are used for warning purposes onsite. Onsite assembly areas are identified in the EPIPs, as are primary and alternate site evacuation routes. Radiological monitoring of relocated persons is provided at onsite and offsite assembly areas. Assembly, accountability, evacuation, and radiation monitoring procedures take into consideration all persons onsite. The Plan provides for accomplishing accountability within 30 minutes. Individual respiratory protection and the uses of protective clothing and thyroid blocking drugs are also addressed in the Plan.

The mechanism for recommending protective actions to the appropriate State and local authorities has been established. The bases for the choice of protective actions for the plume exposure pathway during emergency condition are provided in tabular form in the Emergency Plan. Evacuation time estimates for persons within the plume exposure EPZ are contained in Appendix C of the Plan. Maps and figures showing evacuation routes, relocation centers, and population distribution are provided in this Appendix.

The staff finds this element of emergency preparedness, as described in the Palisades Plant Site Emergency Plan, to be adequate.

K. Radiological Exposure Control (Closed, 255/81-19-17)

Planning Standard

Means for controlling radiological exposures, in an emergency, are established for emergency workers. The means for controlling radiological exposures shall include exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Action Guides.

Emergency Plan

Onsite exposure guidelines consistent with EPA Emergency Worker and Lifesaving Activity Protective Action Guides (EPA-520/1-75-001) have been established for search and rescue, and for performing corrective and assessment actions. The Site Emergency Director, based on recommendations from the Chemistry/Radiation Protection Superintendent, must authorize emergency exposures. Conditions and methods for permitting onsite volunteers to receive radiation exposures in the course of carrying out lifesaving and other emergency activities are described in the implementing procedures.

Dosimetry (TLD) service is provided by the licensee on a twenty-four hour basis for all emergency personnel. Provisions have been made for distribution and use of self-reading TLDs. The administrative methods employed to assure personnel do not exceed limits should be described in the Plan.

Action levels for determining the need for decontamination are specified in the Health Physics Procedures. The means for decontamination, including supplies, instruments, equipment and means for waste disposal are described in the EPIPs. Decontamination of relocated site personnel can be performed at onsite and offsite decontamination areas where supplies, spare clothing, and survey instruments are available.

Onsite contamination control measures have been provided, including area access and drinking water controls. Criteria have been established for permitting return of areas and items to normal use.

The staff finds this element of emergency preparedness, as described in the Palisades Plant Site Emergency Plan, to be adequate.

L. Medical and Public Health Support (Closed, 255/81-19-18)

Planning Standard

Arrangements are made for medical services for contaminated injured individuals.

Emergency Plan

Mercy Hospital is the primary hospital facility for treatment of serious medical emergencies. It is equipped to receive and treat all types of accident victims, including those with radioactive contamination. The backup medical facilities are South Haven Community Hospital and Memorial Hospital. Medical first-aid training is given to the plant emergency organization. This training includes the Red Cross Multimedia course combined with the American Heart Association Cardiopulmonary Resuscitation course. Arrangements have been made for transportation of potentially contaminated injured personnel to area hospitals, utilizing two local ambulance services and company-owned vehicles.

The staff finds this element of emergency preparedness as described in the Palisades Plant Site Emergency Plan, to be adequate.

M. Recovery and Reentry Planning and Postaccident Operations (Closed, 255/81-19-19)

Planning Standard

General plans for recovery and reentry are developed.

Emergency Plan

The licensee has developed general criteria, plans, and procedures for reentry and recovery actions. The Palisades Plant and Consumers Power Company staffs will be reorganized at the discretion of the Site Emergency Director in concurrence with the EOF Director. Overall long term recovery operations will be directed by the Vice President Nuclear. The Emergency Plan contains provisions for notifying the State when senior licensee staff deem it safe to begin the reentry phase of the offsite recovery operations. The EPIPs provide for estimating the total offsite population exposure. However, this issue should also be described in the next revision of the Emergency Plan.

The staff finds this element of emergency preparedness as described in the Palisades Plant Site Emergency Plan, to be adequate.

N. Exercises and Drills (Closed, 255/81-19-20)

Planning Standard

Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.

Emergency Plan

The plan states that Palisades will conduct an annual emergency preparedness exercise, and various drills, to meet the following objectives:

- ensure that emergency response personnel are fimiliar with their duties
- determine the adequacy of the Plan and EPIPs
- test communications systems
- verify the operability of emergency equipment
- check the adequacy of emergency supplies and equipment

Exercise scenarios will be sufficiently varied such that all portions of the emergency organizations will be tested at least once every five years. Federal, State, and local government representatives will observe and evaluate the performances of those involved in the exercise. Observers will be provided with exercise scenario information in accordance with Federal Emergency Management Agency (FEMA) Guidance Memorandum No. 17. An exercise will be scheduled to begin between 6:00 p.m. and midnight and another between midnight and 6:00 a.m. once every six years, and some exercises should be unannounced.

The Plan also contains summary descriptions, including frequencies of occurrence, for the following types of drills: Medical Emergency, Fire Emergency, Radiological Monitoring, Communications, and Radiation Safety/ Chemistry. Offsite agencies are advised of the scheduled dates of drills and exercises, although scenario details may be kept confidential.

The Nuclear Emergency Planning Coordinator and plant management are responsible for planning, scheduling, and coordinating emergency drills and exercises. Recommendations for revisions to the Plan or its Implementing Procedures and/or upgrading of emergency equipment, resulting from drill or exercise critiques, are forwarded to the Chemistry/Health Physics Superintendent. After his review, recommendations are forwarded to the General Manager and the Plant Review Committee. Changes that are approved by the General Manager are then incorporated into the Plan and appropriate procedures. Drill and exercise records are all maintained at the Palisades Plant.

The staff finds this element of emergency preparedness, as described in the Palisades Plant Site Emergency Plan, to be adequate.

O. Radiological Emergency Response Training (Closed, 255/81-19-21)

Planning Standard

Radiological emergency response training is provided to those who may be called on to assist in an emergency.

Emergency Plan

The General Superintendent for Training, Nuclear Operations, General Office, is responsible for training. Specialty training capabilities may be delegated to personnel qualified to perform such training. The Plan includes commitments to provide site specific training for offsite emergency organizations who may be called upon to provide assistance in the event of an emergency. Commitments extend to inviting and providing training at appropriate intervals for offsite response organizations, including organizations with which the licensee has mutual aid agreements, such as: emergency preparedness offices, State Police, County Sheriff's Offices, fire and ambulance services, and doctors.

Besides classroom training, members of the onsite emergency response organization participate in practical drills in which the individuals demonstrate ability to perform assigned emergency functions. Each member of the First-Aid Team(s) also receives the Red Cross Multimedia First-Aid course.

The Emergency Plan provides summary descriptions of the types of training given onsite personnel, including those having emergency response duties. The initial training and annual retraining programs described in the Plan are applicable to the following personnel: licensed operators, personnel responsible for assessment of emergencies, security force, fire brigade, damage control and repair teams, radiological monitoring personnel, first-aid teams, offsite support groups, and plant personnel not having emergency response duties.

The staff finds this element of emergency preparedness, as described in the Palisades Plant Site Emergency Plan, to be adequate.

P. Responsibility for the Planning Effort: Development, Periodic Review and Distribution of Emergency Plans (Closed, 255/81-19-22)

Planning Standard

Responsibilities for plan development and review and for distribution of emergency plans are established, and planners are properly trained.

Emergency Plan

The Nuclear Emergency Planning Coordinator is responsible for updating the Palisades Plant Site Emergency Plan and for reviewing the County, State and other supporting emergency plans for compatibility. He is also responsible for conducting offsite Agency training and coordinating Site Emergency Plan review, drills, and exercises with the onsite coordinator. The Chemistry/Health Physics Superintendent has been delegated responsibilities related to emergency planning which include being familiar with changes in the Federal Regulations and guidance which impact emergency planning activities.

Emergency Implementing Procedures (EIPs), including appended letters and plans of offsite organizations and agencies, are to be reviewed on at least an annual basis and updated as needed. The Nuclear Emergency Planning Coordinator and the Chemistry/Health Physics Superintendent are responsible for a complete annual review of the Site Emergency Plan and the Implementing Procedures. Revisions to the Plan and Implementing Procedures, which may result from exercises and drills, changes in key personnel, changes in organizational structure, changes in functions of supporting agencies, changes in State or Federal Regulations, modifications to the plant, and recommendations from other organizations, are approved by the General Manager. An independent Plan review is also conducted annually by a competent organization that is not immediately responsible for the emergency preparedness program. In practice, revised pages are dated and marked to show where they have been changed. The Plan's table of contents lists the supporting plans and their source. The Emergency Plan contains an appendix which lists the EIPs and the sections of the plan to be implemented by the EIPs. A cross reference for the Plan sections to NUREG-0654 elements is also provided in the Plan.

The staff finds this element of emergency preparedness, as described in the Palisades Plant Site Emergency Plan, to be adequate.

Conclusion

Based on our review of the licensee onsite emergency preparedness program, we conclude that the Palisades Plant Site Emergency Plan meets the standards of 10 CFR 50.47(b) and the requirements of 10 CFR Part 50, Appendix E. The review of the permanent Emergency Response Facilities will be documented in a separate report.

Annex A

FIGURES

LIST OF FIGURES

1. Normal Plant Organization

2. Emergency On-Site Organization

3. Emergency Off-Site Organization

4. Long-Term Recovery Organization

5. Emergency Facilities

6. Palisades Plant Normal Notification Chain

7. Communcations Resources

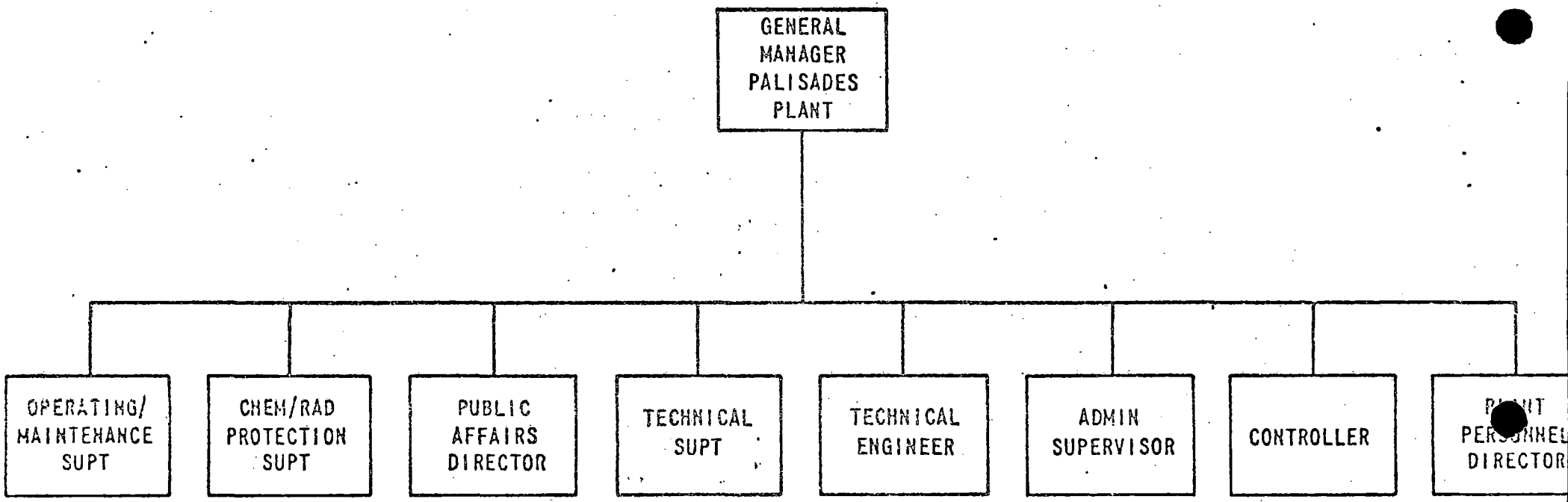


FIGURE 1
NORMAL PLANT ORGANIZATION

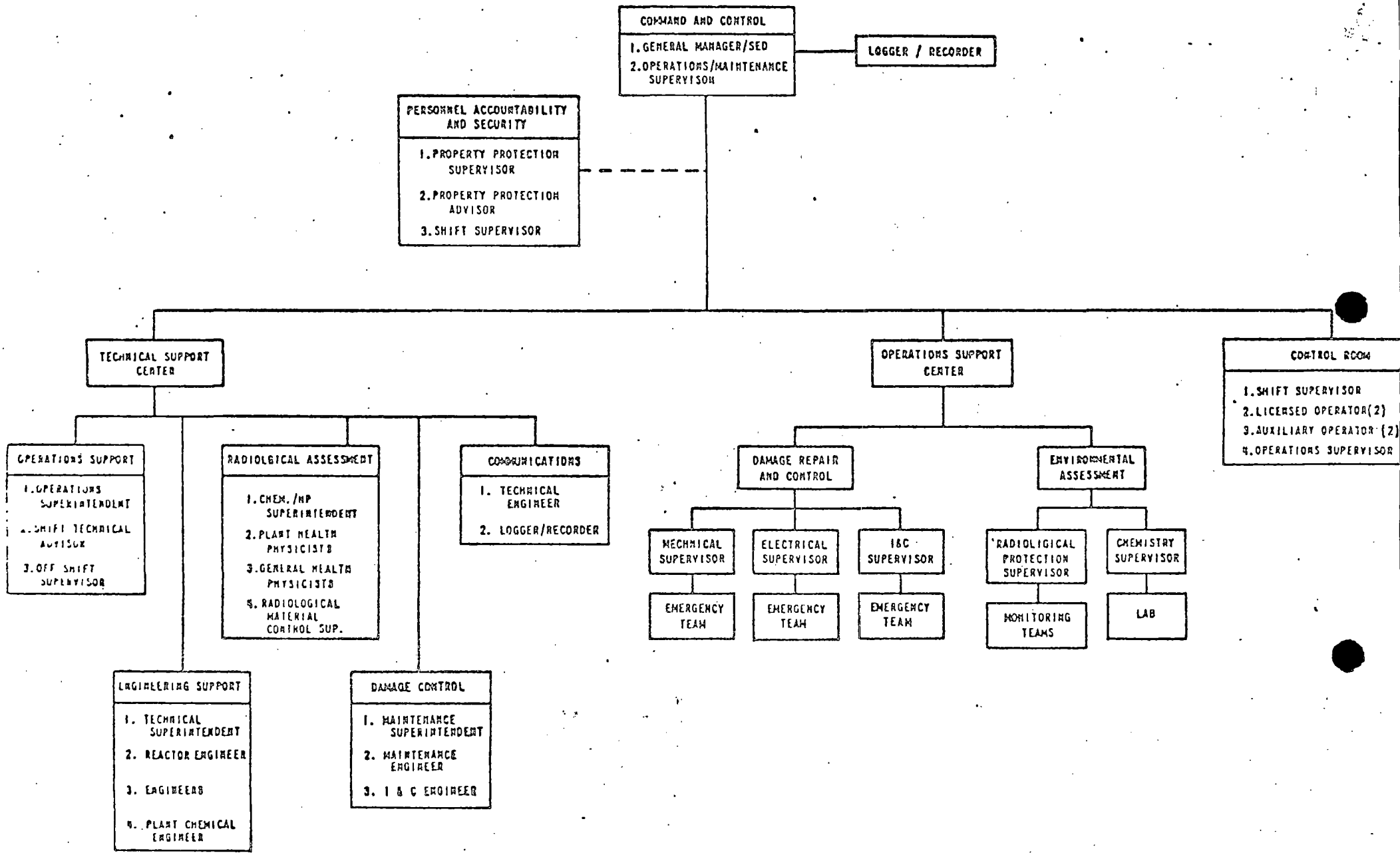


FIGURE 2
EMERGENCY ON SITE ORGANIZATION

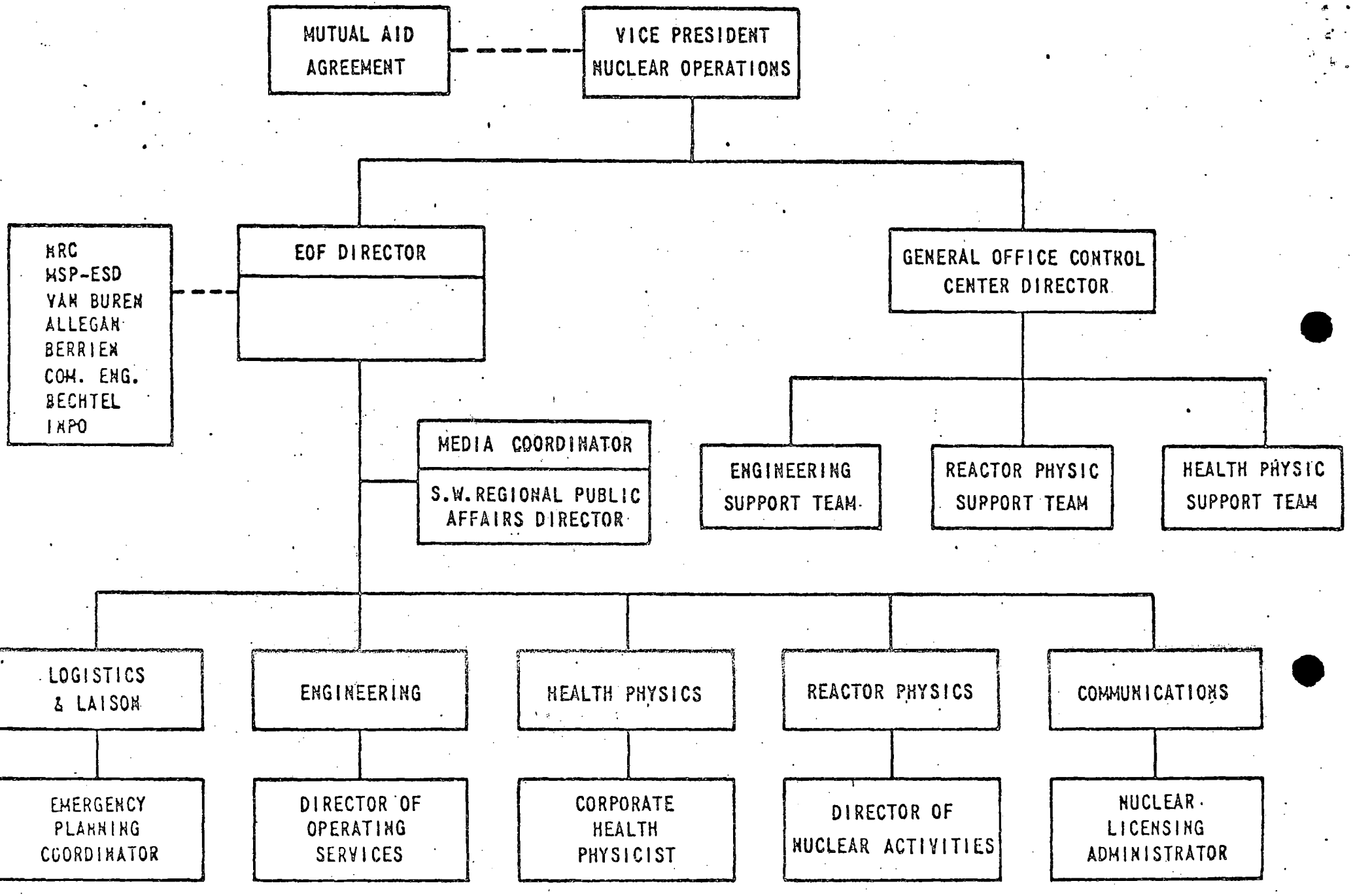


FIGURE 3

EMERGENCY OFF-SITE ORGANIZATION

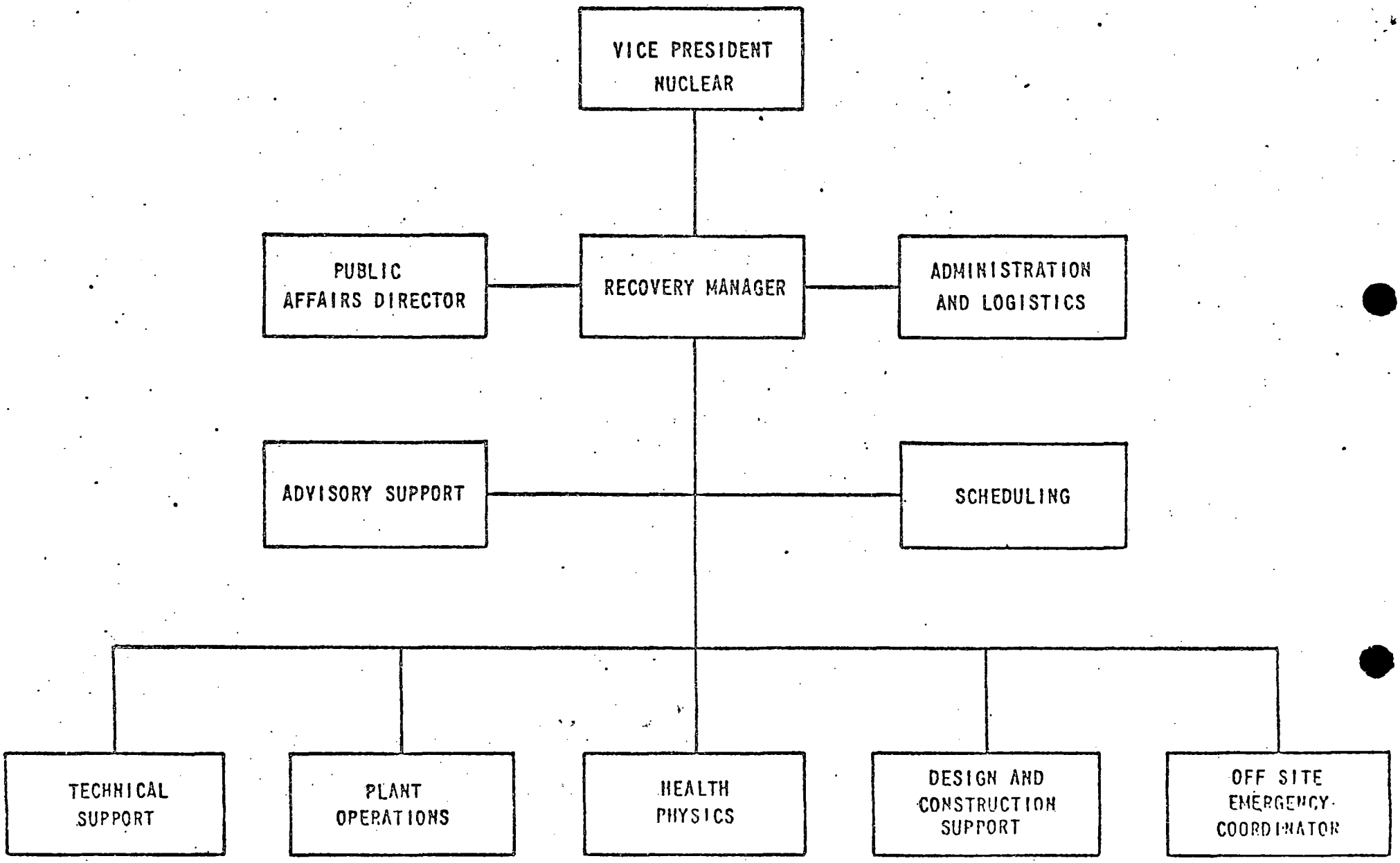


FIGURE 4
LONG TERM RECOVERY ORGANIZATION

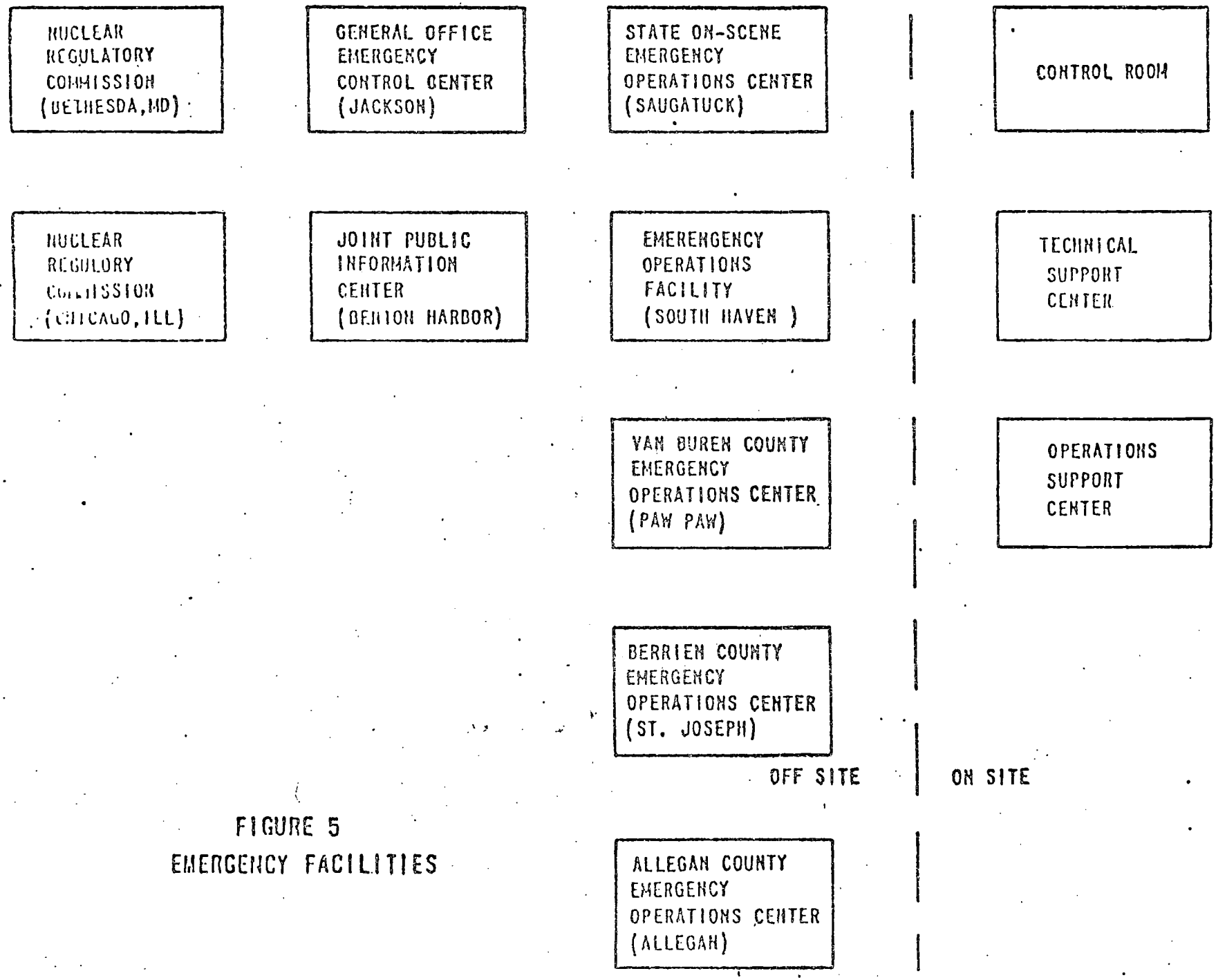
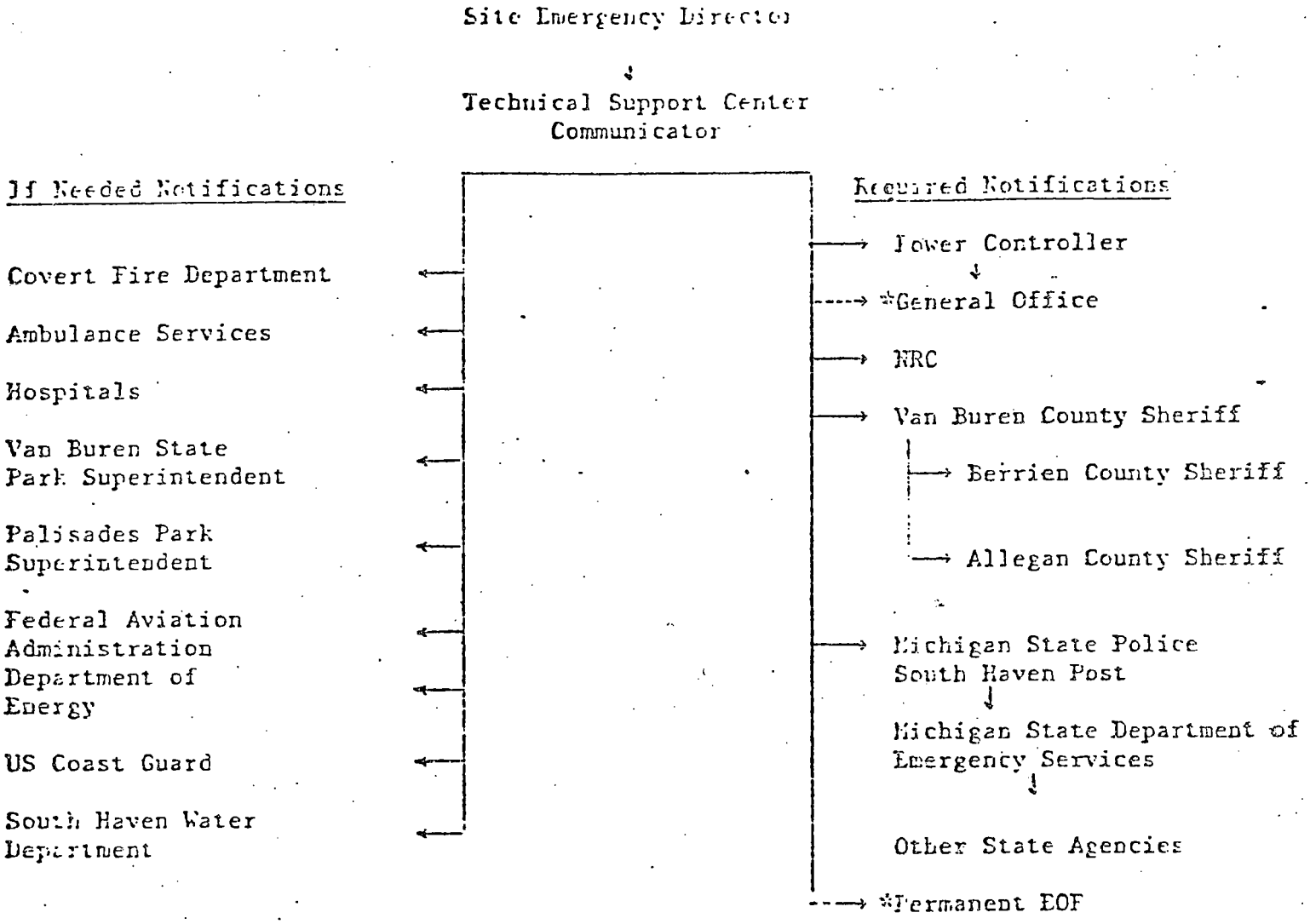


FIGURE 5
EMERGENCY FACILITIES

FIGURE 6

Palisades Plant Normal Notification Chain



* Notification performed upon activation of facility

FIGURE 1

COMMUNICATIONS MATRICES

	Control Room	TSC	OSC	EOF	GOCC	PCSW	NRC	SEOC	VBC-EOC
Control Room		2 7	2 4	1 3	1 3	1 3	1 5	1 6	1 5
TSC	2 7		4 2	1 5	1 3	1 3	1 5	1 6	1 5
OSC	4 2	4 2		3 5	3 5	3 5	N/A	N/A	N/A
EOF	1 3	1 3	1 3		1 3	5 3	1 5	1 5	1 5
GOCC	1 3	1 3	3 5	1 3		1 3	5 -	N/A	N/A
PCSW	1 3	1 3	3 5	5 3	1 3		5 -	N/A	N/A
NRC	1 5	1 5	N/A	1 5	5 -	N/A		5 -	N/A
SEOC	1 6	1 6	1 6	1 5	5 -	N/A	5 -		5 6
VBC-EOC	1 5	1 5	N/A	1 5	N/A	N/A	N/A	5 6	

1. Direct dedicated telephone
2. Intraplant telephone
3. Company radio
4. Intercom
5. General Telephone Company
6. State Police radio
7. Face to face

TSC - Technical Support Center
OSC - Operational Support Center
EOF - Emergency Operations Facility
GOCC - General Office Emergency Control Center
PCSW - Power Controller, Southwest Region
NRC - Nuclear Regulatory Commission
SEOC - State On-Scene Emergency Operations Center
VBC-EOC - Van Buren County Emergency Operations Center